MOHANLAL SUKHADIA UNIVERSITY
UDAIPUR

FIELD PRACTICUM REPORT

Master of Social Work

2020 - 2022

Name of Student K. Raghvendra Year 2022

Agency Name & Address Seva Mandir
Udaipur.

Department of Sociology
University College of Social Sciences And Humanities

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FIELD WORK REPORT ON

"SPECIES DIVERSITY, BIOMASS AND CARBON STOCK : ROLE OF AGROFORESTRY IN A VILLAGE ECOSYSTEM OF UDAIPUR DISTRICT, RAJASTHAN, INDIA"

Submitted by

KUMAR RAGHVENDRA

Submitted in partial fulfilment of the requirements for the degree of

MASTER OF SOCIAL WORK (MSW)

2020-2022

Under the Guidance of

Dr. GPS JHALA

NATURAL RESOURCE DIVISION

SEVA MANDIR,

UDAIPUR

&

Dr. RAJKUMARI AHIR

SOCIOLOGY DEPARTMENT

UNIVERSITY COLLEGE OF SOCIAL SCIENCE AND HUMANITIES

AT

MOHAN LAL SUKHADIA UNIVERSITY

UDAIPUR, RAJASTHAN

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MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

TIME SHEET

Student's Name	KUMAR RAGHVENDRA.	Field Work Agency	SEWA MANDIR
Faculty Supervisor	Dr. PARUL TYAGI & DR RAJKUMARI AHIR	Field Work Supervisor	Dr. UPSJHALA

Dates Covered by this Time Sheet

Beginning Month	Ending Month	Total Cumulative Hours Spent
6th August 2021	25th January 2022	594 hrs.

Date	Time in	Time out	Main Activities	Time Spent in the Field	Supervisory Conference	Time Spent in Report Writing	Total Hours Spent	Remark: Field Supervisor	Remark: Faculty Supervisor
			Introduction:- About	8:00hrs			8.00		
			ANVGIO.						
			Introduction with team	8.00hrs.			8.00		
			members and working						
			area and its ACTIVITIES						
			Details about Report writing.	2.00hrs			2.00		
			Supervisory conference	4.00hrs	4.00hrs		4.00		
			OBJECTIVE:- A						
			discussion about Obsective		4.00hrs		4.00		
			Review of literature:-				↓		
			searching the review of	50.00hrs					
			literature by sitting in				50.00		
			seva mandir's library				↑		
			Global climate change	8.00hrs			8.00		

Signature of Student		Date	07.04.2022
Signature of Field Supervisor		Date	
Signature of Faculty Supervisor		Date	

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MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

TIME SHEET

Student's Name	KUMAR RAGHVENDRA,	Field Work Agency	SEWA MANDIR.
Faculty Supervisor	Dr. PARULTYAGI & Dr. RAJKUMARI AHIR.	Field Work Supervisor	Dr. GPS JHALA

Dates Covered by this Time Sheet

Beginning Month	Ending Month	Total Cumulative Hours Spent
6th August 2021	25th January 2022	594 hrs.

Date	Time in	Time out	Main Activities	Time Spent in the Field	Supervisory Conference	Time Spent in Report Writing	Total Hours Spent	Remark: Field Supervisor	Remark: Faculty Supervisor
			Review of literature-						
			carbon cycle	5.00hrs			5.00		
			major carbon sink	10.00hrs			10.00		
			Carbon sequestration	5.00hrs			5.00		
			Agroforestry system	8.00hrs			8.00		
			TOF (Tree outside forest)	4.00hrs.		12.00hrs	4.00		
			Field study Area → Collection of Primary and secondary data.	30.00 hrs		30.00	30.00		
			History of Kotra village	21.00hrs			21.00		
			occupation and land holding.	16.00hrs.			16.00		
			Material and method :-						
			Understanding the Landuse	26.00hrs			26.00		
			and resources of village						
			survey of village	90.00hrs.			90.00		

Signature of Student		Date 07.04.2022
Signature of Field Supervisor		Date
Signature of Faculty Supervisor		Date

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MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

TIME SHEET

Student's Name	KUMAR RAGHVENDRA,	Field Work Agency	SEWA MANDIR
Faculty Supervisor	DR. PARUL TYAGI & DR. RAJKUMARI AHIR	Field Work Supervisor	DR. G.P.S. & G. JHALA

Dates Covered by this Time Sheet

Beginning Month	Ending Month	Total Cumulative Hours Spent
6th August 2021	25th January 2022	594 hrs.

Date	Time in	Time out	Main Activities	Time Spent in the Field	Supervisory Conference	Time Spent in Report Writing	Total Hours Spent	Remark: Field Supervisor	Remark: Faculty Supervisor
			Continued:- Assessment of biomass	42.00hrs			42.00		
			Identification of tree	32.00hrs.			32.00		
			Statistical analysis	36.00hrs			36.00		
			Household survey.	26.00hrs.			26.00		
			Result:- Analysis	18.00hrs			18.00		
			Agroforestry and sps. diversity	6.00hrs			6.00		
			Biomass stock & Carbon stock	8.00hrs			8.00		
			Fuel wood consumption	9.00hrs	16.00hrs	4.00hrs.	29.00		
			Discussion	12.00hrs			12.00		
			Conclusion	19.00hrs			19.00		
			Implication & suggestions	1.00hrs			1.00		
			Photographs.	2.00hrs			2.00		
			Appendices	3.00hrs			3.00		
			Report writing total	40.00hrs			40.00		

Signature of Student — Date 07-04-2022

Signature of Field Supervisor — Date

Signature of Faculty Supervisor — Date

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Dr. GPS JHALA
Forestry Co coordinator
Natural Resource Division
Seva Mandir, Udaipur

Seva Mandir

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Email: gps.jhala@sevamandir.org

Seva Mandir, Old Fatehpura, Udaipur, Rajasthan, India, 313001

CERTIFICATE

To whomsoever it may concern

This is to certify that Mr. KUMAR RAGHVENDRA student of Master of Social Work (MSW) at University College of Social Science and Humanity (Mohan Lal Sukhadia University), Udipur has satisfactory completed his field work placement titled **"Species Diversity, Biomass and Carbon Stock; Role of Agroforestry in a Village Ecosystem of Udaipur district, Rajasthan, India"** at the Natural Resource Division, during the period from 6th August 2021 to 25th January 2022, under my supervision and guidance. No part of the field work placement has been submitted for any other degree or diploma.

Dr. GPS Jhala
Forestry Coordinator
Natural Resource Division
Seva Mandir
Udaipur

Date: 12/04/2022

Place: Udaipur

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CERTIFICATE

This is to certify that Mr. KUMAR RAGHVENDRA student of Master of Social Work (MSW) at University College of Social Science and Humanity (Mohan Lal Sukhadia University), Udipur has satisfactory completed his field work placement titled**"Species Diversity, Biomass and Carbon Stock; Role of Agroforestry in a Village Ecosystem of Udaipur district, Rajasthan, India"**at the Natural Resource Division, during the period from 6th August 2021 to 25th January 2022.

This work has been carried out under the supervision of Dr. GPS Jhala, Natural Resource Department, Seva Mandir, Udaipur.

Date:

Place: Udaipur.

Dr. Rajkumari Ahir
Course Co-ordinator (MSW)
MLSU
Udaipur

Dr. RAJKUMARI AHIR
Course Co-ordinator
Master of Social Work
MLSU, Udaipur

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DECLARATION

I hereby declare that the field work entitled "**Species Diversity, Biomass and Carbon stock; Role of Agroforestry in a Village Ecosystem of Udaipur District, Rajasthan, India.** is a record of bonafide work carried out by me under the guidance of GPS Jhala and that no part of this work has been submitted for the award of any degree/ field work or equivalent.

Date: 07.04.2022

Place: Udaipur

Signature

(KUMAR RAGHVENDRA)

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Acknowledgement

At last the moment has come to look into the deeper layer of heart, which is filled with the feelings of togetherness, and loveliness, consolation and satisfaction. Some are momentary and some are permanent but both involve a number of persons to whom I aknowledge my warm regards.

"No scientific endeavour is a result of individual's efforts. and so comes the time to look back on path traversed during this endeavour and to remember the faces and spirits with a sense of ~~good~~ gratitude".

At the onset of acknowledging the help of all those who have contributed to the realization of this manuscipt, I would like to first and foremost express my profound sense of gratitude towards the guide Dr. U.S Bhala Natural Resource Management for his valuable and express guidance Timely suggestions. It was a great opportunity for mine to work under his guidance.

I am also thankful to Dr. (Mrs.) Rajkumari Ahir, course coordinator (MSW), department of sociology, MLSU. for making the required formalities easy and for their valuable suggestions

I would like to place on record of my gratefulness to my advisory committee members viz, Dr. Parul Tyagi, MSW, MLSU Udaipur for her timely advice minute course correction and crucial evaluation inputs during the preparation of this time would be gratefully acknowledged.

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It is neither possibly with in the scope of this acknowledgement to record any feeling of affection, love and thanks towards the Allelomorphs good local guardian Dr. Parul Tyagi. I am thankful to her for their constant support, encouragement and understanding the problems, and unrestrained help during period of this study.

Rewinding the stage of my life that I spent in Udaipur, I would like to affectionately remember my classmates and friends who helped me during this journey of field study both physically and mentally to achieve a pleasent successive manner. Memories of this campus will linger with me, whenever I maybe, through the memories of the time I spent with them. The names of Deepak, Amar, Devendra, Govind, Lalit, Laxman and Darshana.

Lastly I would like to express my sincere graceful billed thanks to 'Almighty god' who has protected me so long and permitted me to undertake this journey. The journey is still continuing with many more destination to cover. Before I stop, I pray for his blessings to be with me till the end of this life journey.

Ending is inevitable journey for any kind of work. The help of all whose contribution, big or small is their towards the completion of the field study is gratefully acknowledged.

Place:- Udaipur

Date:- 25.03.2022

Kumar Raghvendra

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Affectionately dedicated

to

My parents.

Sister, Brother

Family Members,

Loving Friends

&

Beloved Teachers.

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Content

Sl. No.	Title	Main Activities	Total hours spent (in Hour)	Page no.
1	Introduction	Introduction about NGO, introduction with team members and Brief about working area & its activities	8.00	07-10
		A discussion about field work activity in detail with Road map	8.00	11-13
		Detail about report writing	2.00	—
2	Objective	Supervisory conference meeting	4.00	—
		A discussion about objective achievement		14
3	Review of Literature	Searching the review of literature by sitting on Seva Mandir's library	50.00	16-17
		Global Climate change	8.00	16-17
		Carbon Cycle	5.00	17-18
		Major Carbon Sink	10.00	19
		Carbon sequestration in Indian Scenario	5.00	20
		Agroforestry System	8.00	21
		Potential of Tree outside forest in carbon sequestration	4.00	22
		Time spent in report writing	12.00	
4	Field Study Area	Collection of primary data and secondary data	30.00	24-28
		History and Geography of kotra village	21.00	24-28
		Occupation and Land holding pattern	16.00	29-32
5	Material & Method	Understanding the different land use and resource use of village ecosystem	26.00	34
		Survey of agroforestry Area	90.00	34-40
		Enumeration of Agroforestry system for its species diversity, biomass stock and carbon stock		34-40
		Assessment of Agroforestry system for its total Biomass	42.00	38
		Identification of tree species	32.00	38
		Statistical analysis	36.00	40
6	Result	House Hold Survey	26.00	39
		Result Analysis	18.00	44
		Agroforestry System and its Species Diversity	6.00	45
		Biomass Stock and Carbon Stock	8.00	46

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Contents

		Fuel Wood Consumption pattern in Kotra Village	9.00	47
		Location of gathering of fuelwood by households in Kotra village	9.00	48
		Average Required fuelwood quantity/ year in quintal	3.00	49-51
		Average Transportation cost (in Rs.) incurred during fuelwood collection	2.00	52
		Conclusion from Fuelwood survey	2.00	54
7	Discussion	Biomass in Agroforestry system	12.00	58-60
8	Conclusion	Higher biomass of ecosystems is associated with higher species diversity leads to greater carbon sequestration.	19.00	62
9	Implication & Suggestion	Practical Implications of Results	1.00	64
10	Reference	Reference book	17.00	66
11	Photographs	Field activities photographs	2.00	65-73
12	Appendices	Appendix1: Household survey for kotra village	1.00	74
		Measurement of trees	1.00	75
		List of acronyms	1.00	76
13	Report writing	Total time spent in report writing	40.00	
Overall total hours Spent			594	

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Introduction of Field Work Organisation (NGO)

Seva Mandir :→

History:→

Seva mandir is a nonprofit organisation based in Udaipur, Southern Rajasthan India. Conceived in 1930's the organisation was founded in 1968 by Dr. Mohan singh mehta, who had been a distinguished Ambassador, administrator and educationalist.

Initially seva mandir work focused on adult education, with the aim of equipping the rural predominantely tribal citizen of this area with the skills that would enable them to become active agents of their own development.

Over the year, however, it became clear that this work was not contributing enough to bringing change on the ground due to fragmentation, different functions and a lack of vision for collective development. Collective leadership built on inclusive and participatory processes was needed to address the challenges. Seva mandir responded by diversifying its repertoire of activities and became engaged in natural resource development and women's empowerment development.

In subsequent decades, this has expanded to include a wide range of activities.

primary education, health, early childhood care and development, all implemented by means of our engagement with the community institutions which form the bedrock of all Seva mandir's work and within a framework based on the Gandhian notion of constructive work.

In recent years, Seva mandir has begun extending its approach to development beyond rural areas to include both peri-urban townships and urban slums. Although these areas have distinct social, political and economic realities, the underlying principles that characterize Seva mandir's work are still of great relevance in bringing about positive social change.

What they Do

Seva mandir works with more than 500,000 people in 1,300 rural villages in two districts (Udaipur and Rajsamand) of Southern Rajasthan.

The total area of these two district is over 16,000 sq km with villages spread over large area and made up of a series of small hamlets, typically inhabited by different caste and tribal groups. The area is hilly and semi arid, with poor infrastructure. 84% of the population are subsistence of agriculture, farmer who struggle to make living from their small landholdings

Around 70% of the population is tribal. Tribal people who traditionally inhabited the forest areas of India, have their own social and governance customs- they score lowest on all measures of development lack opportunity to improve their development and frequently face discrimination.

Seva mandir believes believes in not just delivering aid but in long term and sustainable social transformation - since our inception over 50 years ago, the fundmental principle underpinning all of our activities has been that rural development work in the villages, however much it is needed, is not an end in itself.

Working areas are as below :-

(i) Sustainable Development.

(ii) Empowering Women

(iii) education

(iv) Early childcare and development

(v) Combating Malnutrition

(vi) Water, Sanitation and Hygeine (WASH)

(vii) Natural Resource Management.

(viii) Strengthening Rural livelihoods.

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Let's discuss about study:→

Introduction:→

Global climate change is the most encompassing and burning environmental issue nowadays. Climate change refers to the trends that persist for decades or even centuries, over and above natural season and annual changes. The main causes of global warming is thought to be a build up of atmospheric 'greenhouse gases' of which carbon dioxide (CO_2) is the major contributor. The use of fossil carbon reserves (Oil, coal and natural gas) for human activity has resulted in enhanced CO_2 emissions.

The reduction in concentration of CO_2 in the atmosphere can be achieved either by reducing the demand for energy or altering the way of usage of energy and by increasing the rates of removal of CO_2 from the atmosphere through growth of terrestrial biomass, i.e. forest.

The 1997 Kyoto protocol to the climate convention recognizes that drawing CO_2 from the air in to the biomass is one of the ways for mitigation of the gas from the atmosphere.

Trees are one of the most significant elements of any landscape, both due to biomass and diversity. Key role of trees in ecosystem dynamics is well known. However, it is paradoxical that the vegetation has undergone destruction is well known.

The concept of carbon sequestration emerged in the 1980 due to consequence of steadily increasing level of CO_2 in the atmosphere. "Carbon sequestration" is the process of extraction of atmospheric carbon dioxide and storing it an carbon for a very long period of time in the terrestrial ecosystem in the form of soil, vegetation and other forms. Due to drastic change

in the globe over several decades. Carbon sequestration has generated interest and resulted to play a prominent role in the control of greenhouse effect. Greenhouse Gases (GHGs) and to reduce CO_2 emissions to the atmosphere or to offset emissions by storing additional carbon in forest (IPCC 1996).

The inter governmental panel on climate change (IPCC) considers natural and human cause for climate change and defines it as a change in the state of the climate that can be identified by changes in the mean and/or variability of its properties and that persists for an extended periods, typically decades or longer. It refer to any change in climate overtime, whether due to natural variability or as a result of human activity.

The above and below ground biomass in India is estimated to be 8,375 million tonnes (MT) constituting 4,178 million tonnes of carbon storage for the year 1986. The total carbon stored in forests including soil is estimated to be 9578 million tonnes. On the other hand, the annual carbon emissions from fossil based energy production and consumption activities in India is estimated at 152 to 205 million tones. The current rates of carbon emission from agriculture and forestry sectors are just about being balanced by the current rate of reforestation.

According to an estimate each person on earth is responsible for about 3 tonnes of CO_2 emission per year. To absorb that amount of CO_2 over their life time, each individual must plant and maintain atleast 15 trees per year.

Tree species richness, diversity index, standing biomass and carbon stock in agroforestry system is one of the most important landuse systems that can contribute to stabilizing climate change.

The agroforestry systems play ~~an~~ an important role in accumulating atmospheric carbondioxide in to the tree biomass.

picture-1:- Showing interaction with team members.

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Objectives

This study was conducted as there is limited information available in india on species diversity, biomass and carbon stocks in Agroforestry system, particularly the village ecosystems.

The study has the following objectives:

1. To understand different landuse and resource use at a village ecosystem.
2. To assess agroforestry system for its species diversity, biomass stock and carbon stock.
3. Potential of TOP (tree outside forest) in carbon sink/ sequestration.

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Review of literature:-

The relevant literature that helps in understanding and interpreting the results obtained in the present field work/dissertation/fieldwork was compiled from various sources and presented in this chapter.

Global climate change

Role of green house gases in climate change.

Climate change is one of the most pressing challenges facing the international community today. The reasons are obious:-

We all share a comman planet. The concentration of green house gases in the atmosphere has markedly increased over the last century and an increasing body of scientific evidence suggests that if the greenhouse effect continues unchecked, the distribution of Earth's ecological zones as we know them will change.

Species will become extinct, sea levels will rise and extreme weather events will become more frequent.

The earth atmosphere is naturally composed of layers of gases that allow the sun's energy to penetrate and warm the planet, thus making it habitable. Of the incoming solar radiation, approximately 30 percent is reflected back to space by clouds and the earth's surface, 25 percent is observed by the atmosphere and radiated back to space and 45 percent is observed by land and water.

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The energy that reaches the surface is essential to drive vital processes on earth such as photosynthesis and water evaporation.

Therefore, the amount of greenhouse house gases (GHGs) present in the atmosphere is directly related to the amount of heat retained, and in turn to the character of the climate on earth. Without the presence of GHGs in the atmosphere the Planetary surface would be approximately −15°C or 30°C cooler than its average temperature of 15°C.

It is evident that this natural greenhouse effect is essential for the maintenance of a habitable planet and the earth as we know it. However, since the industrial revolution human activities have released an excess of GHG's into the atmosphere, resulting in an enhanced greenhouse effect. More specially the concentration of CO_2 alone in the atmosphere has increased by 30% since pre-industrial times while the global temperature has increased by as much as 0.6°C.

Carbon cycle :→

The terrestrial carbon cycle involves fixation of atmospheric CO_2 by plants through Photosynthesis, partitioning of photo assimilated carbon within plants and animal pools, incorporation of plants, animal and other carbon sources into soil organic matter through residue decay and photosynthesis and the return of carbon to the atmosphere by mineralization of soil carbon (Stevenson, 1986).

According to Post et al (1990) CO_2 that makes up a small (but vitally important) constituent of the atmosphere is part of a vast planetary cycle in which carbon circulates among three reservoirs and undergoes several changes. These reservoirs are the atmosphere, the oceans and terrestrial system that include a variety of stock such as forests and organic carbon bound in soils.

CO_2 is one of the major GHGs, which taks much of the sun's heat. for more than 20 years the principal problem in budgetting atmosphere CO_2 has been the excess of known sources over identified sinks (Sohngen and mendelsm, 2003). Burning rotting of wood and the decomposition of organic matter on earth and in the soil also contribute CO_2 to the atmosphere.

The carbon removed from the air is used for growth and stored in the plants. Biomass oxygen is expelled as a by-product. Therefore, from the Boreal forest of the North, to tropical rainforests, to phytoplankton blooms in the oceans, plants remove a considerable amount of CO_2 from the atmosphere each year and store it on land in their biomass. The presence and expansion of these terrestrial carbon sinks is vital for modirating the anthropogenic buildup of carbon in the atmosphere.

Major Carbon Sink

The global forests cover 3870 million hac according global forest resource assessment 2000, and contain a total standing volume of 386 billion m^3 of wood.

Global carbon is held in four main reservoirs viz,

(i) Terrestrial system

(ii) The oceans

(iii) The atmosphere and

(iv) Human created carbon stock like wood products, waste dumps etc. (Bala et al, 2003).

Among all the reservoirs oceans are the largest reservoirs containing about 40,000 Gt of carbon followed by terrestrial system with 1100-1150 Gt of carbon (Anon, 2000a).

Among these pools, terrestrial system play very crucial role, because this pool is more amenable for anthropogenic interferences. The human created reservoir is a recently classified pool and entirely dependent on the anthropogenic activities. The wood products, waste dumps, etc. which involve living or dead biomass in them act as a carbon stock. But, these are relatively short lived pools compared to other reservoirs.

Carbon Sequestration :→

Plants absorb carbon from the atmosphere in the process of photosynthesis, Some part of absorbed carbon is released back in to the atmosphere through respiration and the remaining portion is stored in the form of biomass.

In this natural process of carbon assimilation all autotrophes convert atmospheric carbon dioxide into sugars and finally into biomass. But trees, in general, are considered to be a better sink of carbon because they retain carbon for longer duration in their biomass, and also believed to be a closed system with little leakage.

Carbon sequestration in Indian scenario :→

The above ground carbon content of Indian forests for the year 1984 and 1994 was estimated to be 17 and 17.1 million tonnes per hectare respectively (Saxena et al. 2003).

India is afforesting at an average rate of 1.55×10^6 hac/yr (during 1990-2000) while the gross deforestation was 0.272×10^6 hac/yr during the same period.

Using field inventary of growing stock volume and biomass expansion factors relating wood volume to biomass, forest phytomass carbon pool was estimated as 1.9 - 4.0 Pgc.

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Agroforestry System

Agroforestry refers to a land use systems where woody perennials are deliberately used in the same land-management unit as annual agricultural crops and or animals with the aim of obtaining greater outputs on a sustained basis.

Agroforestry relies on the complex interaction between trees and other elements of the system, provides habitat for biological diversity and produces goods and services.

Types of agroforestry practices are as diverse as the number of locations where they are practised.

Approximately, 1·2 billion people, or 20 percent of the world's population, depend directly on agroforestry products and services in developing countries, and most agroforestry practitioners are found in rural areas. Given its significance and widespread use, an important question to be addressed is whether agroforestry, implemented locally to satisfy local needs, can also provide carbon sequestration and storage benefits to help mitigate the accumulation of CO_2 in the atmosphere.

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Potential of tree outside forest (TOF) in carbon sequestration :→

Trees outside Forests (TOF) comprise tree formations ranging from single discrete trees to systematically managed trees on private and public lands and boom an important part of the natural resources of country. The social, economic and ecological functions of the resource are all equally decisive in ensuring the quality of life, providing in national economies and protecting the environment.

TOF Protect crops and soil against water and wind erosion, augment water resources and combat drought and desertification and thus contribute towards sustainable agriculture. They enhance food security, provides of vital nutrition to the poor, supply of wood and non-wood products, boost peasants income, reduce poverty, maintain cultural heritage and social mobilization and also provide vast gamut of indirect environmental services eg: biodiversity, carbon storage, habitat for wildlife, microclimate stabilization, and other functions similar to that of natural forests.

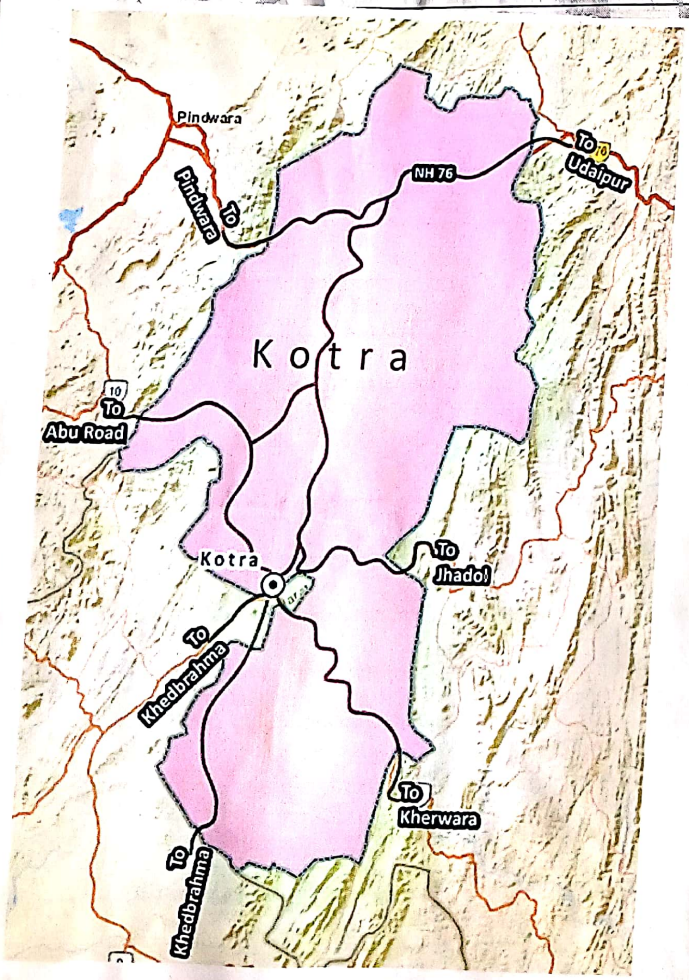
However, recently TOF are begining to be recognized as an important resource, which have the potential to conserve not only natural forest but also to contribute significantly in social well being and economic and ecological development.

Field Study Area :→

Kotra/Kotda is a tehsil of Udaipur district in Rajasthan, India.

Consisting of 262 revenue village and 31 panchayats. The tehsil is bordered to the north by Pali and Sirohi district, to the ~~east~~ east by Dungarpur and Jhadol ~~tehsil~~ tehsils and to the South by Gujarat State.

The ~~tehsil~~ headquarters is located in the village of Kotra, Southwest of the Udaipur at a distance of 57 Km and 120 Km by Road.



Picture:2→ A Detail About Kotra tehsil.

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History:-

Kotra is comprising 242 villages.

During the British Raj. Kotra was directly under the political supervision of the second in command of the mewar Bhil corps and a cantonment was situated in the village of Kotra.

Kotra was the site of the oldest institutions in the mewar state when regimental hospitals of the mewar Bhil corps were opened in 1818.

On 1949, Udaipur state merged to Greater Rajasthan and Udaipur district was formed with 18 tehsils of which Kotra was one. The Kotra panchayat samiti started functioning in 1959. Between the census of 2001 and 2011 approximately, 60 villages in the northeastern portion of the tehsil were reassigned to Jhogunda and Jhadol tehsils.

Geography:-

The area of Kotra tehsil is 1,110.93 Square Kilometers. The annual average rainfall in Kotra tehsil is 800.7 mm with an average of 35 rainy days per year.

Population:-

As of the 2011 India census, Kotda had a population of 250,532.

The total number of household was 41790. Male constitute 50.65 percent of the population and females make up 49.35 percent.

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Literacy rate is – 24.52 Percent.
lower than the national average of 59.5%.

In Kotda, for every 1,000 males there are 980 females.

Tribal population:-

Kotda is a tribal dominant tehsil with 220,905 persons belonging to scheduled tribes. because of the large proportion of tribals in its population

Kotda tehsil has been designated as a scheduled area which allows special protection of tribal culture and other interests.

Language:-

As per the 2001 census of India, 90% of the population of Kotda tehsil speaks Mewari.

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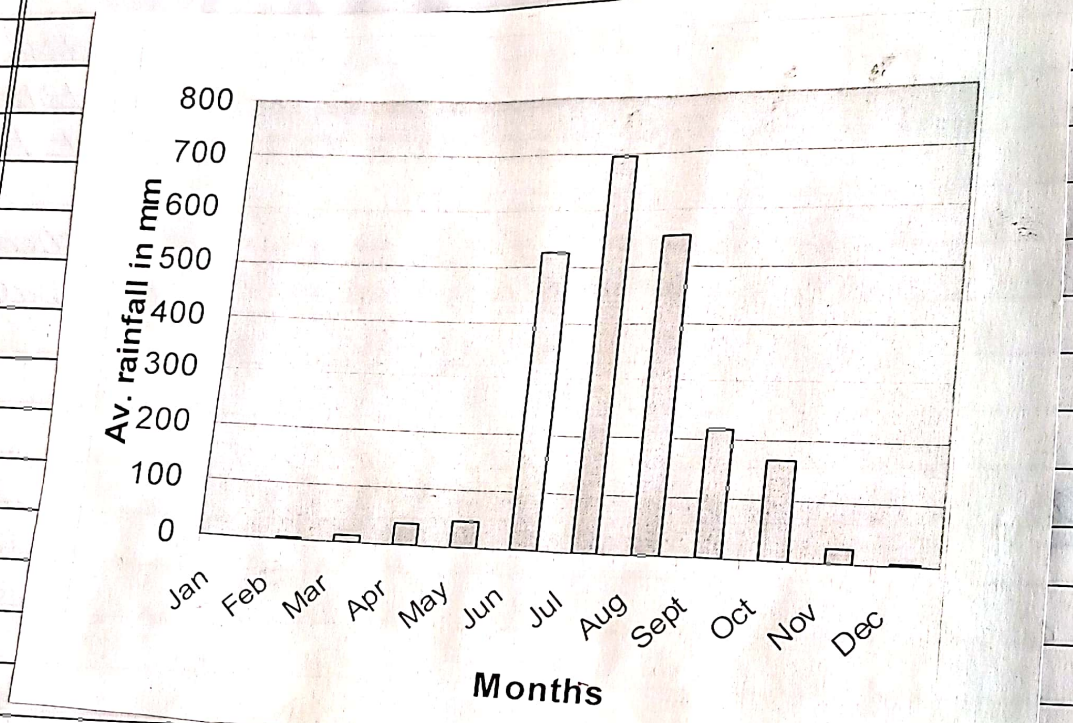

Fig:→3:- Rainfall pattern of Kotra village.

Occupation and Land Holding pattern:-

Farming has been the traditional and main occupation of the village communities with horticulture and agriculture ~~practices~~ practiced on land situated in the valleys. About 182 households with 67% of the total population of the village own cultivable lands and practice mainly horticulture and agriculture.

About 38% of the population are landless and depend on agricultural labor and other occupations. Out of 182 households, 7% of the households are marginal farmer, 23% small farmer and 32% of them large farmers.

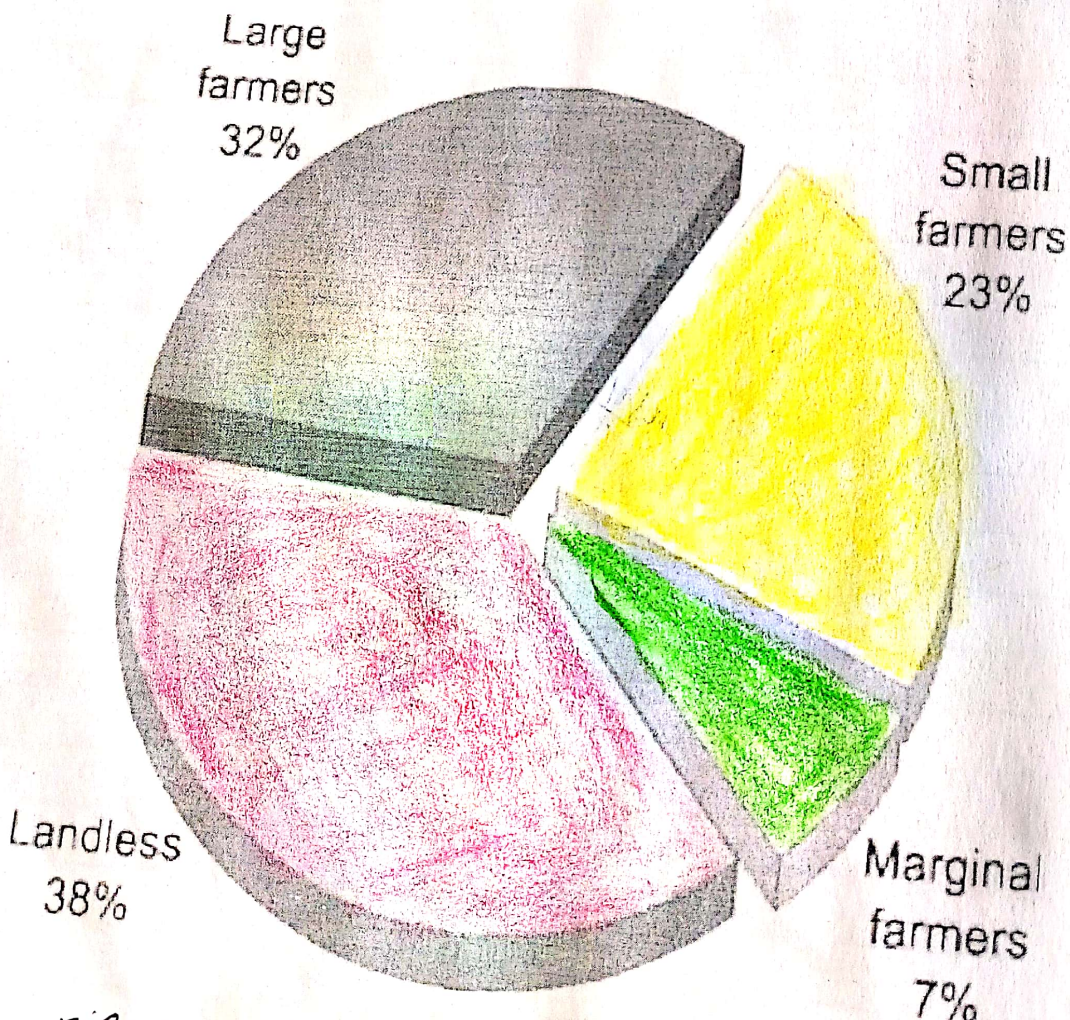

Fig:-4- Land holding Pattern of village

Proposed Field Study Area: Kotra (Udaipur), Rajasthan, India

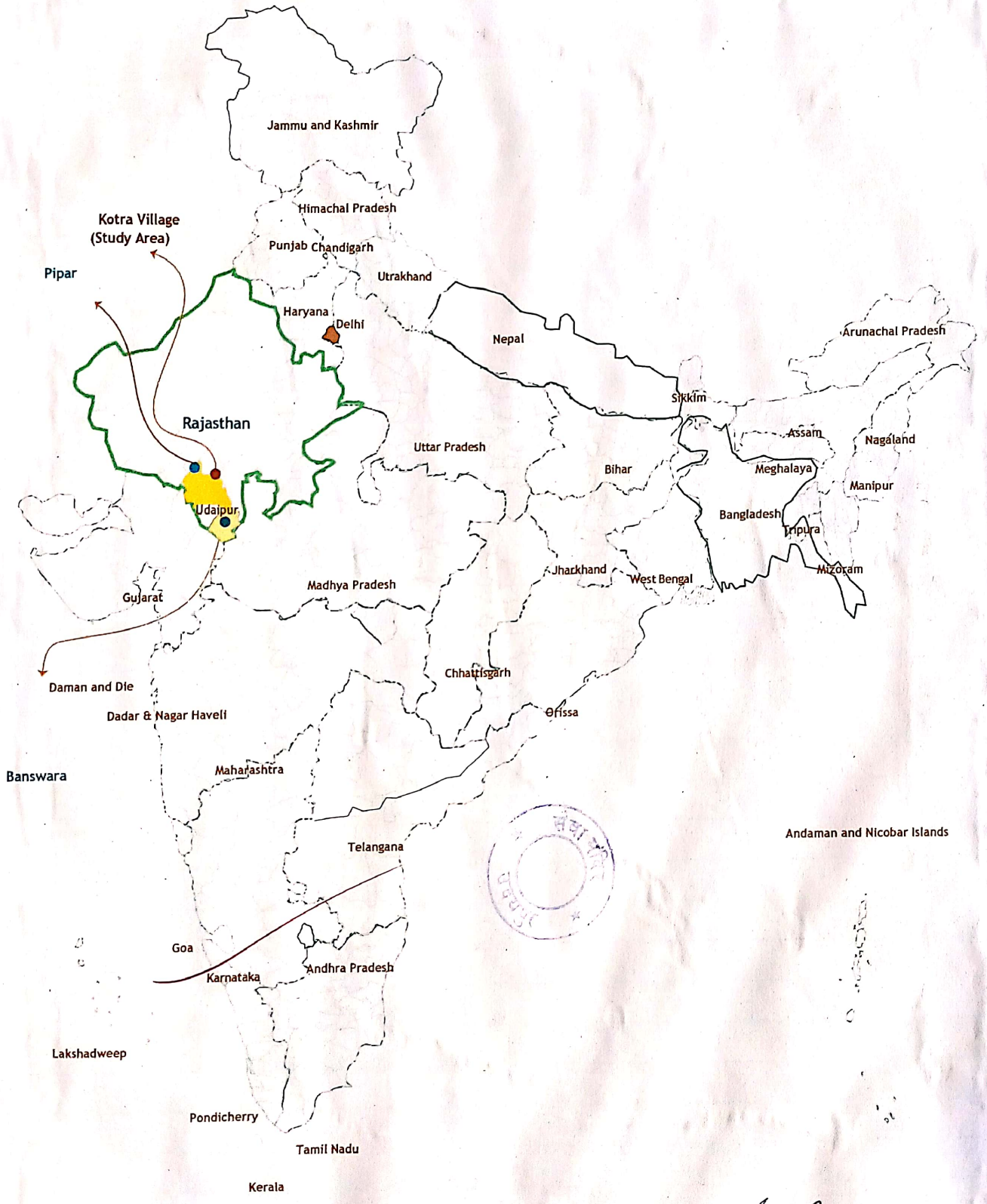

Fig:5:-Demarcation of Field study Area

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Materials & Methods

Material and methods:-

The present field study was carried out in Kotra village of Udaipur district, Rajasthan, India. The details of the material used and techniques adopted in the present investigations are described here under the following headings:-

Aim:-

* Understand different land use and resource use of a village ecosystem.
* To assess Agroforestry system for its Species diversity, biomass stock and carbon stock.
* potential of Tree outside Forest (TOF) in carbon sequestration.

The study land use pattern of the village, village revenue map was used and various questions were prepared based on need as and farmer size.

(A) Survey of Agroforestry Area:-

Steps include:-

(1) Demarcation of agroforestry by using village revenue map.

(2) Agroforestry survey for species diversity by recording species of trees, recording parameters like girth, estimated height of tree.

(3) Information on village was procured from Revenue department and for some informa

referred to State of environment Kotrai village.

Household survey was conducted for family size, occupation pattern and land holding size, live stock population and use of forest resource.

(B) Enumeration of Agroforestry system for its species diversity, biomass stock and carbon stock :→

Agroforestry was practiced in the form of bund planting along paddy, wheat field area of about 53 hac. All trees were enumerated.

(C) Assessment of agroforestry system for its species diversity :-

Species diversity includes species richness (total no. of species) and species eveness (indicates how equally the individuals are represented from each species). Even though, there are different indices to calculate the species diversity. The Shannon's diversity index which is commonly used in ecology, was computed to measure the species diversity in following way.

Diversity determined by using the formula as suggested by (Mar. 1984)

$$\text{Diversity} = \sum Pi \log Pi$$

Where, Pi = proportionate of ith individual.

$\sum$ = total sum.

(D) Assessment of Agroforestry system for its Total Biomass :-

The biomass estimation was done by using various parameters as under.

* Girth at Breast height (cm)

Girth at breast height was recorded with the help of girth tape at 1.37 m above the ground and expressed in cm.

* Total height (m)

The height of tree from base to its tips was estimated by ocular method.

* Basal Area (m^2)

The total basal area was determined by using formula, as suggested by Chaturvedi and Khanna (1984).

$$\text{Basal Area} = g^2/4\pi$$

where g = girth in cm

$\pi = 3.412$

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* Volume (m^3)

Volume was determined by using the formulla as suggested by FSI Report (1998)

Total volume $= 0.058 + 4.598 \times d^2$ (m^3)

Where, d = diameter of tree.

* Biomass yield (t/hac)

To estimate the dry matter from the standing biomass of trees, generally the volume of the wood is multiplied with the wood density of specific species. In order to accomodate such paucity IPCC has recommended using 0.6 as density for mixed forest (macDicken, 1997)

Biomass yield tons/hac = Density of wood x Vol. of tree

Where, the Density of Wood = 0.6

* Above ground Biomass (AGB)

AGB was determined by using the formulla as suggested by MacDicken (1997)

Total AGB (T/ha) = Biomass (T/hac) x 1.2

Where 1.2 = Biomass expansion factor

* Below ground Biomass (BGB)

BGB was determined by using the formula was suggested by mac Dicken, (1997)

Total BGB (T/hac) = Total AGB (T/hac) x 0.26

Where, 0.26 = Constant factor.

* Total Biomass (t/hac)

Total was determined by using the formula as suggested by macDicken (1997)

Total Biomass = AGB + BGB

(E) Assessment of Agroforestry System for its carbon stock

Carbon stock = Total biomass x 0.5

Where, 0.5 = Constant factor.

(F) Identification of Tree species

Tree Species present in the Agroforestry plantations were identified using the field key developed by the French institute of pondicherry.

(G) Statistical Analysis

After tabulation of all the parameters, data table was prepared. The data was analysed using appropriate statistical method.

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(H) House Hold survey

Aim:→ A sample survey of households was conducted using a structured questionnaire for understanding the different land holding pattern, occupation and resource use of a village ecosystem.

Farmers with less than 0.5 acres of drylands are categorised as small farmers. those with greater than 0.5 acres and less than 1.5 acres are medium farmers and large farmers are those with more than 1.5 acre land in Kotra. The total number of households 182 in which 58 were large holdings, 42 households were medium holdings, 13 were small farmer and 69 were landless farmer.

The survey was administered on 5 farmers of each category using random sampling. The survey instrument is provided in appendix.

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(H) House Hold survey

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The survey was administered on 5 farmers of each category using random sampling. The survey instrument is provided in appendix.

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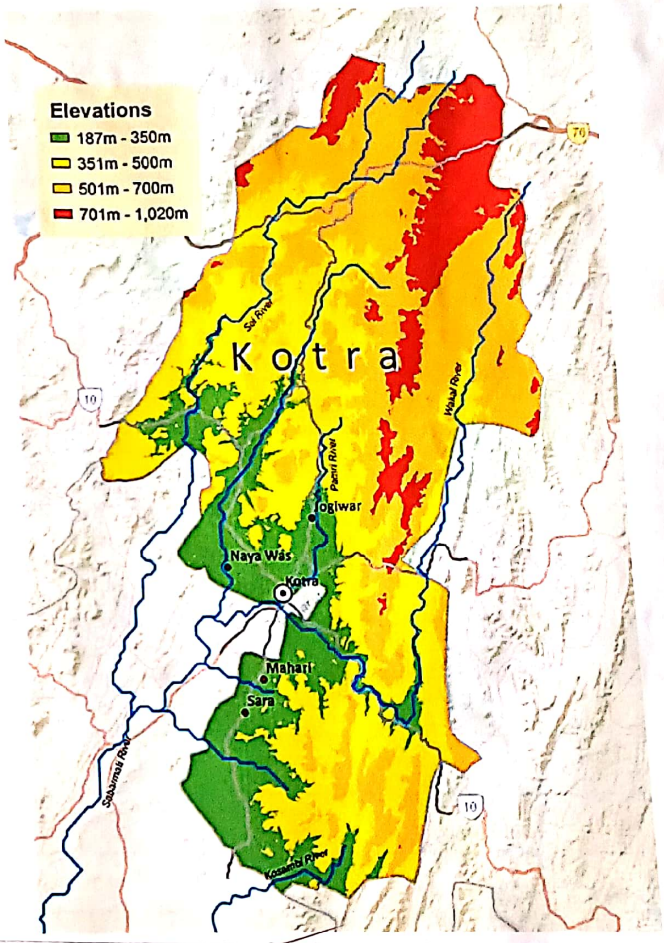
Table 1:- Distribution of land holding pattern in Kotra village.

Category	Total no. of Households	Number sampled	Farmers Status	Holding size (Acres)
Large farmer	58	5	32	>1·5
medium farmer	42	5	23	0·5-1·5
Small farmer	13	5	7	<0·5
Landless	69	5	38	0
Total	182	20	100	

The survey of households was conducted using a structured questionnaire box understanding the different land holding pattern, occupation and resource use of a village ecosystem.



picture :- Showing Terrain of Kotra Tehsil.

RESULTS :→

The Results of the field Study conducted at Kotra village of Udaipur district, Rajasthan as a part of intern work for partial completion of MSW are presented in this chapter.

(A) current Land use

About 285 hac. of forest occupy 74% of total land cover of the village. About 72 hac accounts for 19% Khuskhi lands which are ~~not~~ non arable private lands account for about 4% settlements. Wasteland, grazing and revenue lands together account for the rest 3%.

Trends in Land use

There have been no major changes in the land use of the village and is more or less stable over the past three decades. Area under crops and settlement has marginally increased. About 2% (4 hac) of forest land was converted to cropland.

About 36 hac of Forest Plantation was raised during 1990 on reserve forest.

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(B) Agroforestry system and its species Diversity

Species diversity

Agroforestry is quite a diverse system. The area under agroforestry is used to plant and nurture a whole range of Forest tree species. In the present study, an area of 53 hac 76 tree species have been recorded. these species have in all 1125 individual trees.

top ten species constitute about 80% of the individuals. Dalbergia is the main constituent species followed by Artocarpus integrifolia, mangifera indica. species diversity of the agroforestry has a measure of 2.82

Sl.no	species	No. of individuals	% of individuals
01	Dalbergia sps.	302	26.84
02	Artocarpus integri	186	16.53
03	Mangifera indica	129	11.46
04	Citrus medica	62	5.51
05	caryota urens	54	4.8
06	Holigrana	43	3.82
07	myristica	38	3.37
08	Vateria Indica	30	2.66
09	Barringtonia	28	2.48
10	Acacia	21	1.862
11	other (66 SPS)	232	20.622
12	Total	1125	100

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C Biomass stock and carbon stock:-

The total biomass calculated of all individual trees in the agroforestry is 3.93 t/hac. Among the 76 species present in the surveyed area, Dalbergia with 302 individual trees has shown the highest total biomass with 1.307 t/hac, and the carbon stock of 0.654 ton carbon/hac. This is followed by by Artocarpus integrifolia, with total biomass 0.945 t/hac, and carbon stock of 0.473 tc/ha. and mangifera indica with total biomass 0.708 t/hac and carbon stock 0.354 ton C/hac.

Table 3:- Biomass and carbon stock of ~~top~~ top ten agroforestry species:-

Sl.No.	Species	Biomass (t/hac)	carbon t/hac
1	Dalbergia	1.307	0.654
2	Artocarpus integri	0.945	0.473
3	Mangifera indica	0.708	0.354
4	caryota urens	0.236	0.118
5	Holigarna arnottiana	0.170	0.085
6	Vateria indica	0.169	0.085
7	Acacia	0.116	0.058
8	Barringtonia	0.109	0.055
9	Acacia	0.104	0.052
10	Barringtonia	0.070	0.035
11	Others	1.96	0.995
12	Total	3.93	1.97

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(D) Fuelwood consumption pattern in Kotsa village:-

In this section, an analysis of the survey conducted on landowners regarding their fuelwood consumption pattern is presented.

Avg. distance travelled from home for fuelwood collection

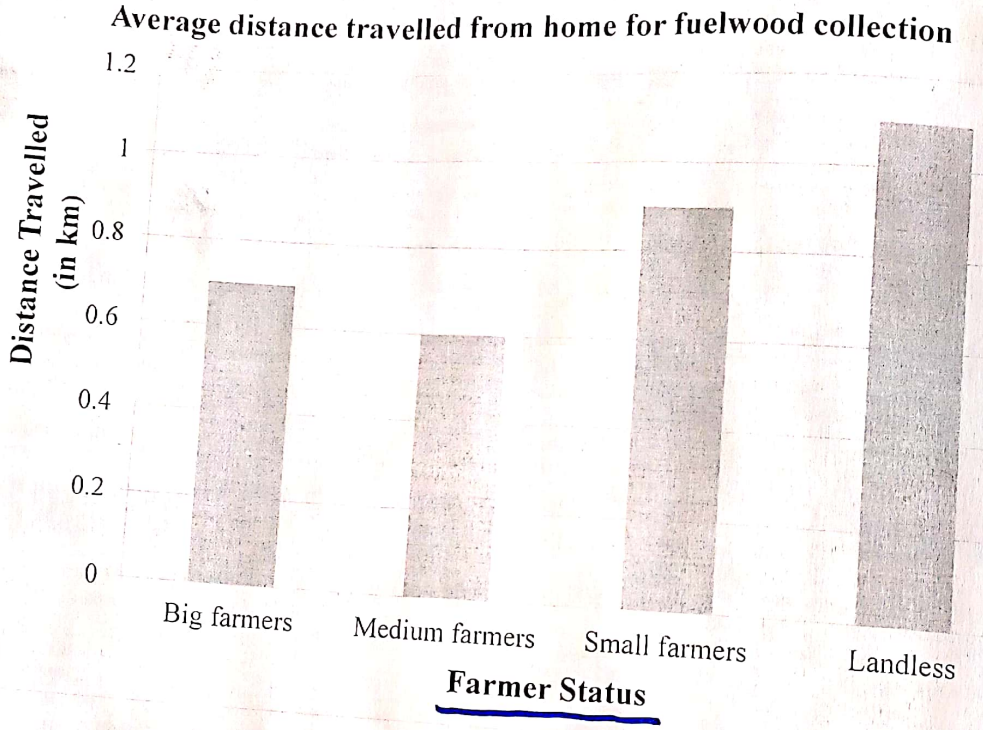

Fig:- Fuel wood consumption pattern in Kotsa village.

it canbe observed that most landless farmers travel distance of morethan 1km to obtain the fuelwood, while most medium and big farmers travel a distance below 1km to collect firewood. Often women travel to collect fuelwood, thus reducing the time they have to prepare food and take care of children and themselves.

(5) Location of gathering of fuelwood by households in Kotra village.

Category	own land	Forest Land
Big farmer	5	0
medium farmer	5	0
small farmer	5	0
Landless.	0	5

Table represents the location of collection of fuelwood for all the farmers. All the landless farmers gather fuelwood from the forest. This creates increasing problems of encroachment in the forest.

All the other types of landowners collect fuelwood from their own land.

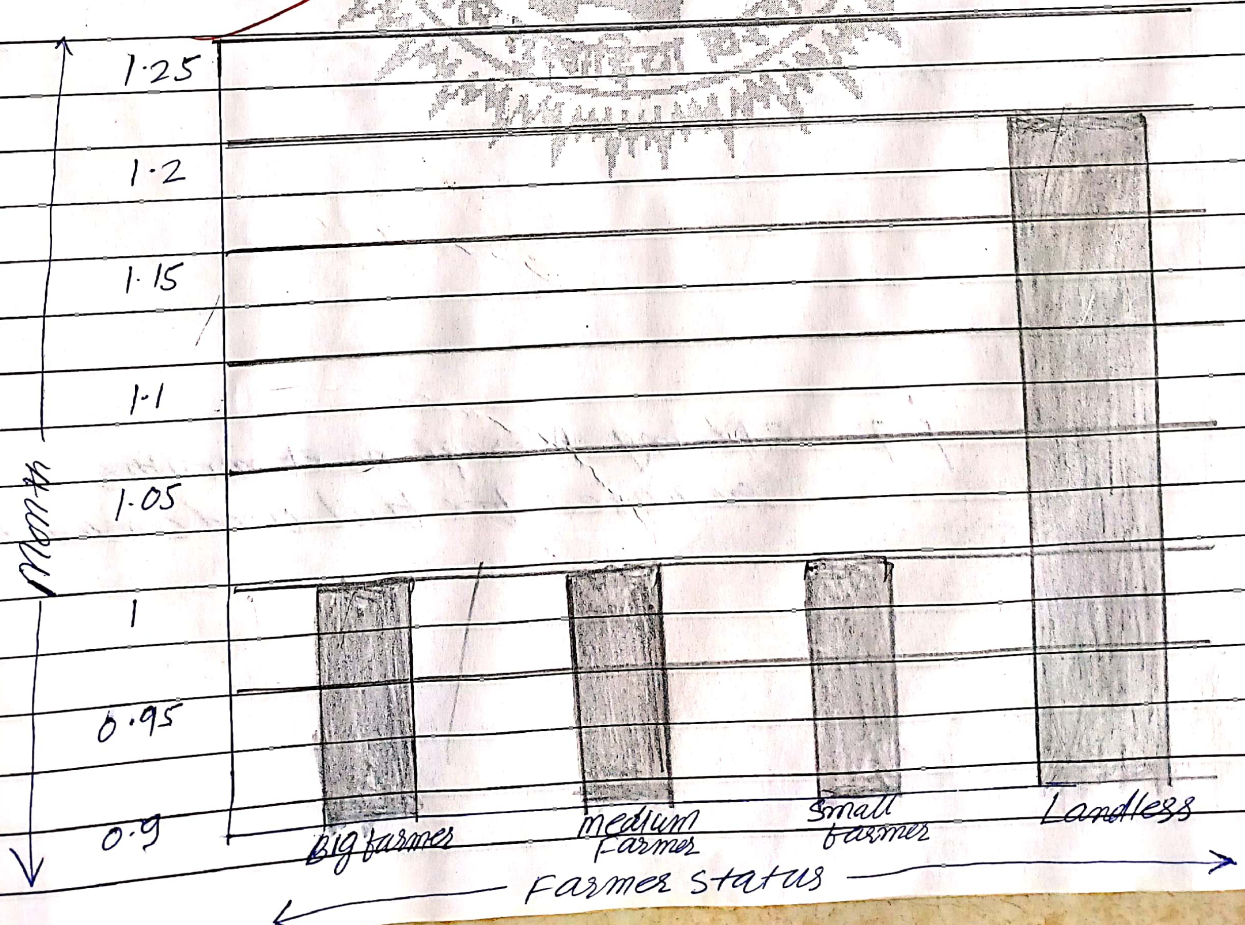

Figure represent the number of months required for collection of one year's worth of firewood. this is another indicator of the high pressure on the forests to sustain the surrounding populations.

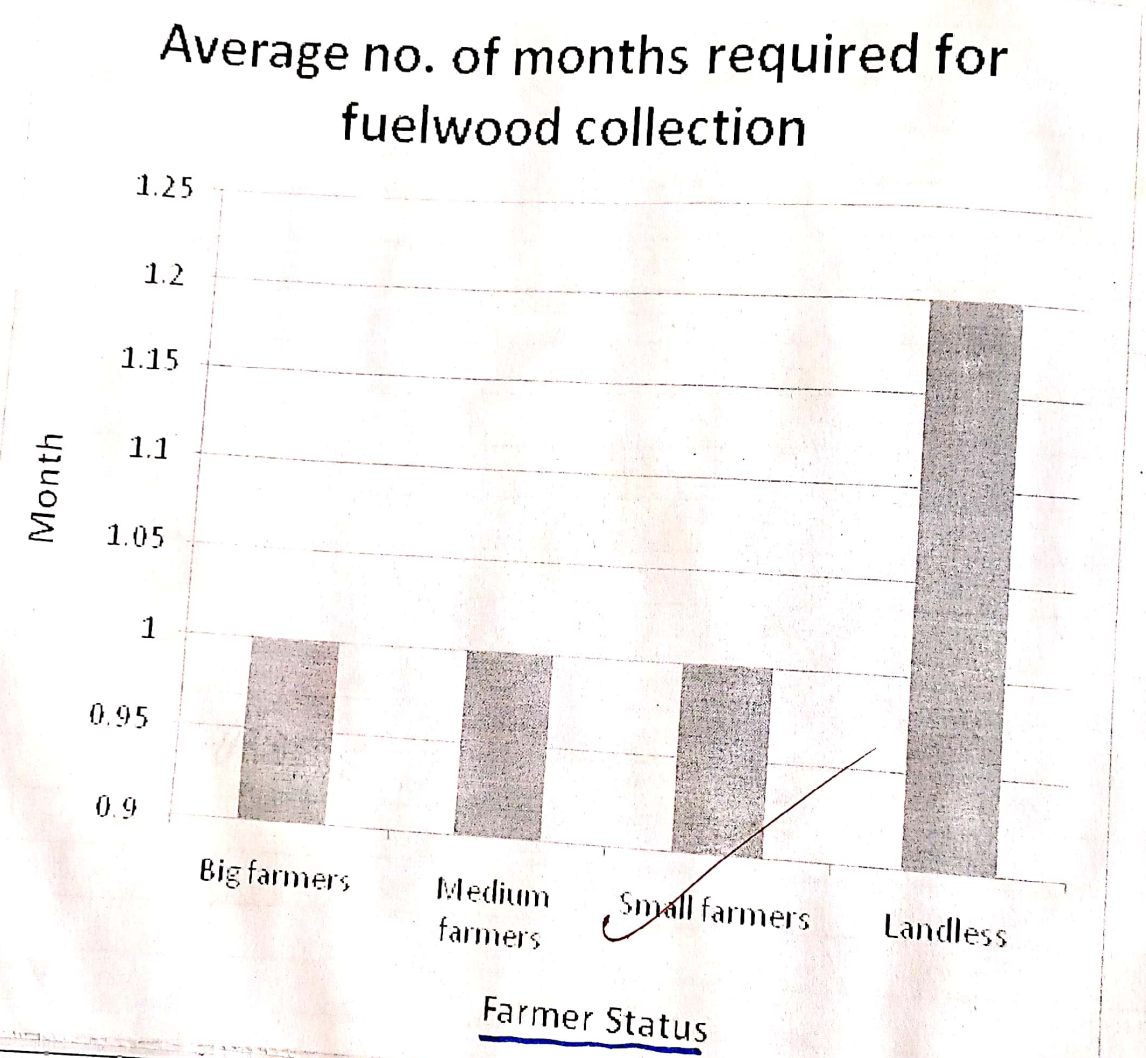

Fig: Showing Average no. of months required for fuel wood consumption

Average required fuelwood quantity/year in quintle

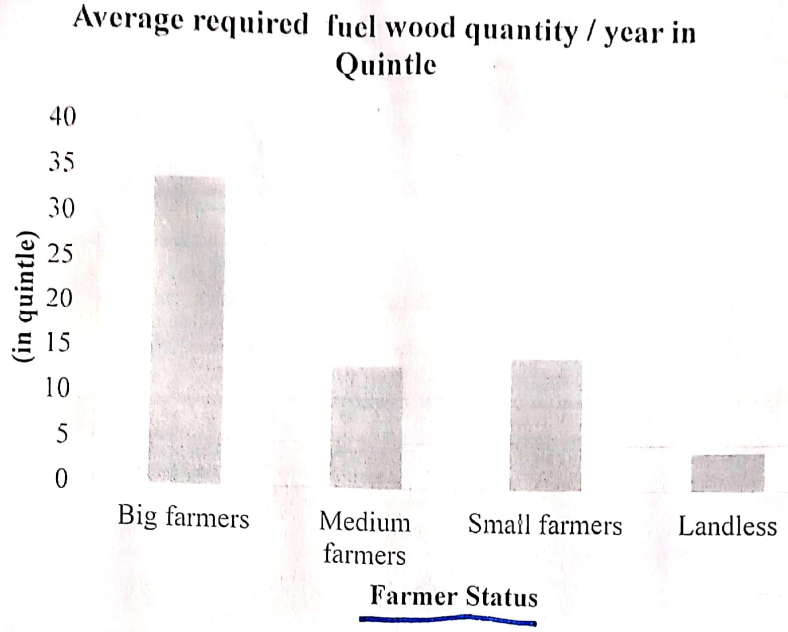

Fig:- showing Fuelwood quantity/year in quintle

← Farmer Status →

Fig: shows and as expected the quantity of fuelwood consumed per year increase as the size of landholding increases. However, the fact that most big, medium and small farmers require more than 10 quintle for fuel purposes, is an indicator of the alarming dependence on fuelwood, subsequently on the amount of carbon released into the atmosphere, and the biodiversity loss in the landholdings and forests.

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Average transportation cost (in Rs.) incurred during Fuelwood collection :-

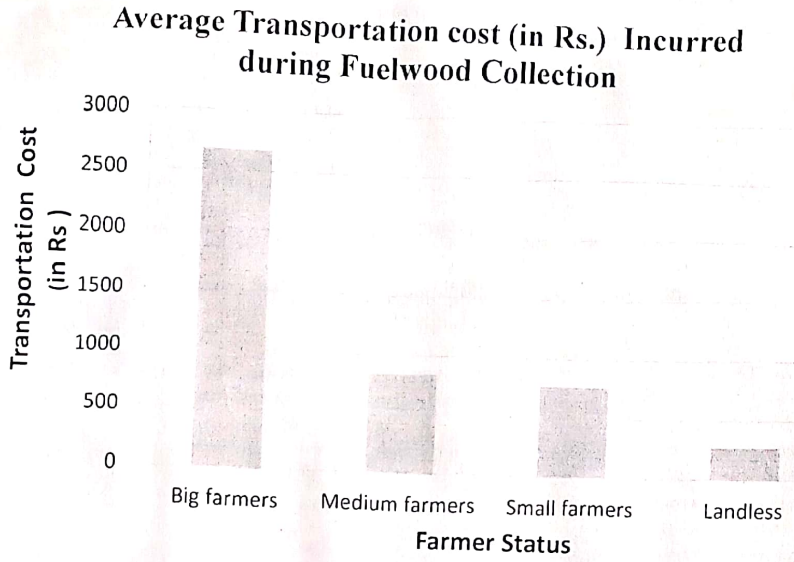

Fig:- Showing transportation cost during fuel wood collection.

← Farmer status →

Fig indicates the transport cost of fuelwood collection of land owners in the Kotoa village, where most big farmers and medium farmers spend more than 500 Rs. to collect fuelwood. While most small farmers and landless farmers use less than 500 Rs. to collect fuelwood. Several big farmers also use more than 1000 Rs. to collect fuelwood. This is high cost for the village.

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Conclusion from fuelwood survey:-

The conclusions from the fuelwood survey are the following:-

(A) The landless farmers spend more time and travel more distance to collect fuelwood, which causes subsequent socioeconomic problems associated with the household.

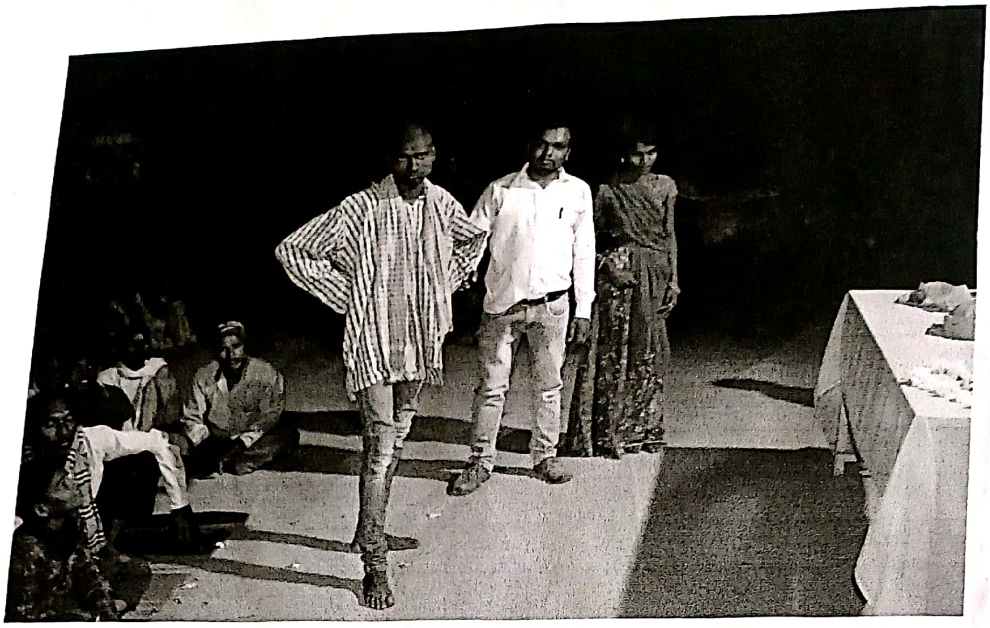
(B) All type of landowners (Big, medium and small) collect fuelwood from their own land, one exception is the landless and who collect it from the forests.

(C) Average required fuelwood is highest for big farmers, who require up to 33 quintals or 3 tonnes per year.

This exerts very high pressure on the surrounding ecosystem.

Picture:- 7:- Showing tribal cultural program in village ecosystem.

Picture:- 8:→ picture showing Live stock of the village ecosystem.



picture 9:- Showing an interaction with blind person at village level.

picture 10:- Showing an interaction with whole village (farmer and all).

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Discussion :-

The results of the field study conducted to assess the diversity, Biomass stock and carbon stocking ability of Agroforestry in village ecosystem area is discussed in this chapter in light of relevant and comparable studies conducted elsewhere.

Agro based agroforestry system is one of the most important land use systems that contribute immensely to carbon sequestration and thus help in mitigating global climate change. This is mainly because of the multiple cropping systems followed in crop cultivation in India.

The carbon sequestration that can occur in Plantation crops and agroforestry systems are not eligible for carbon trading as per the existing kyotoprotocol (IPCC 2001). However, post 2012 ~~the~~ with the completion of the first commitment period, there could be a change in the existing modalities. The idea of considering Plantation crops and agroforestry systems for carbon trading is already under discussion in various (COP) Conference of Parties (IPCC 2007), since these lands use systems have all the properties of mitigating the climate change which is considered to be possible Afforestation and Reforestation programme.

The arguments to consider perenial agroforestry crops will have strength only when there is an adequate scientific evidence to convince during the negotiations. it is also necessary to consider the existing sinks of carbon in carbon trading along with the new sinks that are created. If perenial Plantation crops and trees under agroforestry systems are considered for carbon trading, it will help in alleviating the poverty and improving the living standards of the farmers and also maintaining biodiversity.

Biomass in Agroforestry system

The present worldwide extents of planted forests worldwide are, exceeding in million hectares. There is significant increase in extent of planting in both tropical and temperate regions every year.

It is prescribed that a greater proportion of industrial wood will soon be tapped from plantations than the exploitation of natural forests and agroforestry.

Hence Agroforestry has became a dominant form of forest development in future.

Trees are also one of the most significant elements of any landscape, both due to biomass and diversity.

Therefore, under the present land use systems existing in this region, village based agroforestry system is one of the best land use systems from the point of sustainable use of natural resources and livelihood earning.

Farmers can get a sustained incomes from alternative sources of incomes available in wheat and paddy based agroforestry land use system.

In addition to livelihood earning there are various ecosystem services are provided which help in keeping our environment clean by sequestering atmospheric carbon in the form of biomass as well as in soil and sustaining biodiversity. Such a system of landuse help in utilizing the natural resources such as land, soil, air and water in sustainable manner.

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Picture 11:→ Data collection from field study area.

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Conclusion:-

From this study we can conclude that the planting of multipurpose tree species in non-forest land categories serves a dual purpose, i.e. promotion of biodiversity and carbon sequestration.

A tree planting design with a combination of fast and slow growing species is useful for different rotation rates of the two species renders valuable wood that is economically beneficial, as well as wood for use as fuelwood and for construction purposes.

More number of individuals of same species implies more intra species diversity, biomass and carbon sequestration; in my field study Dalbergia is having more number of individuals it's having more diversity, biomass and carbon sequestration.

For Fuel wood collection by landless people has to travel long distance and have to spend more time in collecting fuelwood. however the consumption of fuelwood is more by large farmers. therefore, these peoples are directly or indirectly depend nearby forest area for fuelwood collection, alternatively forest biodiversity is under stress because of this deforestation by the local people hence carbon capture by the ecosystem will also be affected. thus it indicates deforestation will be progressively higher and ecosystem damage will increase with time.

Higher biomass of ecosystems is associated with higher diversity, and higher species diversity leads to greater carbon sequestration. The management of agricultural lands will play an important role in enhancing carbon sinks and in turn reducing emissions.

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Implications and suggestions:→

Practical implications of Results

- Agroforestry practice would enhance diversity in the cultivation landscape of the hilly zone in [redacted] Kotra village. similar to the hilly zone, agroforestry with all its benefits could be practiced in all cultivation landscape of Udaipur district.

it would not only help conservation of species but it would benefit the farmers with additional income.

- From the present investigation and study it is understood that carbon sequestration potential is also very high in agroforestry farms.

In addition to forest lands agroforestry also harbour a large assemblage of trees.

Future line of work:-

* Biomass and carbon content of Agro based plantations of both the species need to be quantified to get a complete picture of the carbon sequestration occuring in the crop based agroforestry land use system.

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Picture 12:→ First meeting with Jhadol Block seva mandir's representative to entering in the field and interaction with the local staff.

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Picture 13:→ A picture showing interaction with team members.

picture 14:- Showing crop pattern of village ecosystem.

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Appendix 1:

Household survey for Kotra village.

Natural Resource management Division
Seva Mandir
Udaipur - 313001

Date:-
Hamlet name:-

1. HH Name :
   Type of house (Roof):-

2. Farmer status
   (a) marginal farmer (0-0.5 hac)
   (b) Medium farmer (0.5- 1.5 hac)
   (c) Large farmer (> 1.5 ha)

3. Family size (Number)
   total:
   Adult male:-
   Adult female:
   children < 14 years.

4. Fuel wood Sources

   Do you use cut wood, crop residue, dung cake) gather fuelwood or purchase fuelwood?

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Appendix 3:-

List of Acronyms

Cm	→	Centimeter
M	→	Meter
T	→	Tons
Mt	→	metric tons
Mg	→	mega grams
Gig	→	Giega grams
Tg	→	Tera grams
Pg	→	Peta grams
Ha	→	Hector
m·ha	→	million hector
Yr.	→	Year
C	→	carbon
Gt	→	Giega tons

Checked & Approved

Excellent work performed

12.04.2023

MOHANLAL SUKHADIA UNIVERSITY
UDAIPUR

FIELD PRACTICUM REPORT

Master of Social Work

20 21 - 20 22

Name of Student **SUNAYANA JAIN** Year 2022

Agency Name & Address Namubhai Educational Foundation Charitable & Welfare Trust

Department of Sociology
University College of Social Sciences And Humanities

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

TIME SHEET

[NEFCWT]

Student's Name	SUNAYANA JAIN	Field Work Agency	Nanubhai Educational Foundation Charitable & Welfare Trust
Faculty Supervisor	DR. PARUL TYAGI	Field Work Supervisor	[Dr. VIKRAM MALI]

Dates Covered by this Time Sheet

Beginning Month	Ending Month	Total Cumulative Hours Spent
January	April	Total Completed hrs-170

Date	Time in	Time out	Main Activities	Time Spent in the Field	Supervisory Conference	Time Spent in Report Writing	Total Hours Spent	Remark: Field Supervisor	Remark: Faculty Supervisor
28/01/22	10:00	6:00	Introduction	8 hrs			8 hrs	Dr. Vikram Mali	
29/01/22	10:30	5:30	Induction Program	7 hrs			7 hrs	Dr. Vikram Mali	
31/01/22	10:00	12:00	Supervisory Conf.		2 hrs	2 hrs	4 hrs		
04/02/22	10:00	6:00	Maintain Nano's Register	8 hrs.			8 hrs.	Dr. Vikram Mali	
05/02/22	10:00	6:30	Tracking Report	8.5 hrs			8.5 hrs	Dr. Vikram Mali	
07/02/22	10:00	12:00	Supervisory Conf.		2 hrs	2 hrs.	4 hrs.		
11/02/22	10:30	6:30	UDR + DNGIPR Pending document follow-up	8 hrs.			8 hrs.	Dr. Vikram Mali	
12/02/22	10:30	6:00	Jodhpur & RJMD pending document follow up	7.5 hrs.			7.5 hrs	Dr. Vikram Mali	
14/02/22	10:00	12:00	Supervisory Conf.		2 hrs.	2 hrs.	4 hrs.		

Signature of Student — Sunayana Jain — Date

Signature of Field Supervisor — Dr. Vikram Mali — Date

Signature of Faculty Supervisor — Parul — Date

Dr. RAJ KUMARI AHIR
Course Coordinator
Master of Social Work
MLSU, Udaipur

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

TIME SHEET

Student's Name	Sunayana Jain	Field Work Agency	NEFCWT
Faculty Supervisor	Dr. Parul Tyagi	Field Work Supervisor	Dr. Vikram Mali

Dates Covered by this Time Sheet

Beginning Month	Ending Month	Total Cumulative Hours Spent

Date	Time in	Time out	Main Activities	Time Spent in the Field	Supervisory Conference	Time Spent in Report Writing	Total Hours Spent	Remark: Field Supervisor	Remark: Faculty Supervisor
18/2/22	10:00	6:00	School visit Preparation – I	8 hrs.			8 hrs	Dr. Mali	
19/2/22	10:30	6:30	School visit Preparation-II	8 hrs.			8 hrs.	Dr. Mali	
21/22/22	10:00	12:00	supervisory Conf.		2 hrs.	2 hrs.	4 hrs.		
25/02/22	9:00	4:00	School visit - Day-I	7 hrs.			7 hrs	Dr. Mali	
26/02/22	9:00	4:00	School Visit Day-II	7 hrs.			7 hrs.	Dr. Mali	
28/02/22	10:00	12:00	supervisory Conf.		2 hrs.	2 hrs.	4 hrs.		
04/03/22	10:00	6:00	giving school visit Information	8 hrs.			8 hrs	Dr. Mali	
05/03/22	10:30	6:30	Drop-out - Girls	8 hrs.			8 hrs.	Dr. Mali	
07/03/22	10:00	12:00	supervisory Conf.		2 hrs.	2 hrs.	4 hrs.		
11/03/22	6:00	7:00	Case study Dungarpur	11 hrs.			11 hrs.	Dr. Mali	
12/03/22	8:00	4:00	Case Study Rajsamand	8 hrs.			8 hrs.	Dr. Mali	

Signature of Student Sunayanajain Date

Signature of Field Supervisor Dr. Mali Date

Signature of Faculty Supervisor Parul Date

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Signature of Faculty Supervisor Parul Date

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

TIME SHEET

Student's Name: Sunayana Jain | Field Work Agency: NEFCWT

Faculty Supervisor: Dr. Parul Tyagi | Field Work Supervisor: Dr. Vikram Mali

Dates Covered by this Time Sheet

Beginning Month	Ending Month	Total Cumulative Hours Spent

Date	Time in	Time out	Main Activities	Time Spent in the Field	Supervisory Conference	Time Spent in Report Writing	Total Hours Spent	Remark: Field Supervisor	Remark: Faculty Supervisor
14/03/22	10:00	12:00	Supervisory Conf.		2 hrs.	2 hrs.	4 hrs.		
25/03/22	10:00	6:00	case study vedio editing	8 hrs.			8 hrs.	V. Mali	
26/03/22	10:30	5:30	Filter Application Farm	7 hrs.			7 hrs.	V. Mali	
28/03/22	10:00	12:00	Supervisory Conf.		2 hrs.	2 hrs.	4 hrs.		
02/04/22	10:30	6:30	Girls Bank detatial entry	8 hrs.			8 hrs.	V. Mali	
05/04/22	10:00	12:00	Supervisory Conf.		2 hrs.	1 hrs.	3 hrs.		
							170 hrs		

Signature of Student: Sunayana Jain Date

Signature of Field Supervisor: V. Mali Date

Signature of Faculty Supervisor: Parul Date

NANUBHAI EDUCATIONAL FOUNDATION
CHARITABLE AND WELFARE TRUST

INSPIRE · EMPOWER · TRANSFORM

UDAIPUR (RAJASTHAN)

INTRODUCTION

[NEFCWT]

Report - I

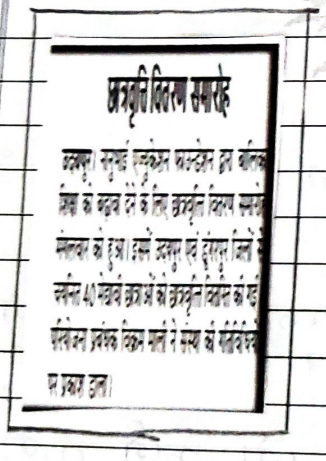
- Date :— 28 January 2022
- Timing :— 10:00 [a.m] to 5:00 [P.M.] Thr.
- Name of Agency :— Nanubhai Education Foundation Charitable & Welfare Trust
- Name of Field Work Supervisor :— Dr. Vikram Mali
- Faculty Supervisor :— Dr. Parul Tyagi

★ **Goal :—** नानूभाई एज्युकेशन फाउंडेशनल चेरीटेबल एंड वेल्फेयर ट्रस्ट [NEFCWT] में समाज कार्य की जानकारी प्राप्त करना।

★ **Objectives :—**

1) समाज कार्य के रूप में कार्यरत NEFCWT के कार्यों को समझना।
2) NEFCWT जो बालिका शिक्षा पर कार्यरत उसकी सम्पूर्ण जानकारी प्राप्त करना।
3) NEFCWT के माध्यम से NGO जो कार्य करते है उनकी जानकारी होना।

[Scholar's]



छात्रवृत्ति वितरण समारोह

उदयपुर। नानुभाई एजुकेशन फाउन्डेशन द्वारा बालिका शिक्षा को बढ़ावा देने के लिए छात्रवृत्ति वितरण समारोह मंगलवार को हुआ। इसमें उदयपुर एवं दुर्गापुर जिलों से चयनित 40 मेधावी छात्राओं को छात्रवृत्ति वितरित की गई परियोजना प्रबंधक विक्रम माली ने संस्था की गतिविधियों पर प्रकाश डाला।

• Activity Undertaken :-

1) आज नानूभाई एज्युकेशन फाउंडेशन का प्रथम दिन था। जिसमे NEFCWT के बारे मे हमारे फिल्ड सुपरवाईजर डॉ. विक्रम माली द्वारा परिचित करवाया गया। अथवा NE FCWT प्रिंस प्रोजेक्ट पर कार्य कर रहा है उसके बारे मे बताया गया।

वहाँ दूसरे विश्वविद्यालय से जो अध्यापी है उन्हे भी परिचित करवाया। एक ओरिएन्टेशन के रूप मे सभी का परिचय हुआ।

2) ओरिएन्टेशन का प्रोग्राम आगे चला, और अब NEFCWT के बारे मे बताया।

नानूभाई एज्युकेशन फाउंडेशनल चेरिटेबल एंड वेल्फेयर ट्रस्ट पिछले 5 वर्ष से बालिका शिक्षा पर कार्यरत है वह 12 वीं मे अध्ययनरत छात्राओं को स्नातकोत्तर (UG) के लिए छात्रवृत्ति प्रदान करता है।

जो छात्राएँ अध्ययन तो करना चाहती है परन्तु उनकी आर्थिक स्थिति अच्छी नही होने से अध्ययन नही सकती है उन्हे छात्रवृत्ति देकर उन्हे आगे अध्ययन करने के लिए प्रेरित करती है, व उनकी मदद करती है।

यह फाउंडेशन आर्थिक रूप से कमजोर वर्ग की छात्राएँ, आदिवासी क्षेत्र की हो या किसी भी अन्य क्षेत्र या वर्ग की हो, यह फाउंडेशन उन्हे अध्ययन के लिए आर्थिक रूप से मदद कर उन्हे आगे पढ़ने के लिए बढावा देती है

Note :- यह फाउंडेशन राजस्थान मे उदयपुर, डूंगरपुर, राजसमंद व जोधपुर मे कार्य करती है।

(2) यह गुजरात में भी कार्यरत है, अथवा यह U.P. के वाराणसी में भी कार्य करती है।

- **व्याख्या :-** Interpretation -
नानूभाई एज्युकेशनल फाउंडेशन चेरीटेबल एंड वेल्फेयर ट्रस्ट (NEFCWT) आर्थिक रूप से कमजोर ग्रामीण / आदिवासी छात्राओं का सकारात्मक प्रभाव बनाने के लिए सशक्त और सुस्थिर तरीके से काम कर रहा है, जिससे जो छात्राएं अध्ययन अपने परिवार की आर्थिक स्थिति कमजोर होने की वजह से नहीं कर सकती है वह अध्ययन कर अपने व अपने परिवार के सपनो को पूरा कर सकती हैं।

- **Self Evaluation :-** मैंने आज NEFCWT के ओरिएन्टेशन प्रोग्राम में यह जाना कि NEFCWT छात्राओं को छात्रवृत्ति प्रदान कर समाज में कैसे बालिका शिक्षा को बढ़ावा दे रही है।

- **Learning / outcomes :-** NEFCWT ने समाज में समाज कल्याण के लिए बालिकाओं की शिक्षा पर महत्व दिया है यह एक उत्तम समाज कार्य है, जिससे छात्राओं का भविष्य उज्जवल हो रहा है।

- **Future Plan :-** आगे NEFCWT के प्रोजेक्ट के बारे में विस्तारपूर्वक जानकारी प्राप्त करेंगे।

Report - 2
[NEFCWT]
Induction Programme.

DATE :-

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REPORT- 2

DATE :- 29 January 2022

TIMING :- 10:30 [AM] to 5:30 [PM]

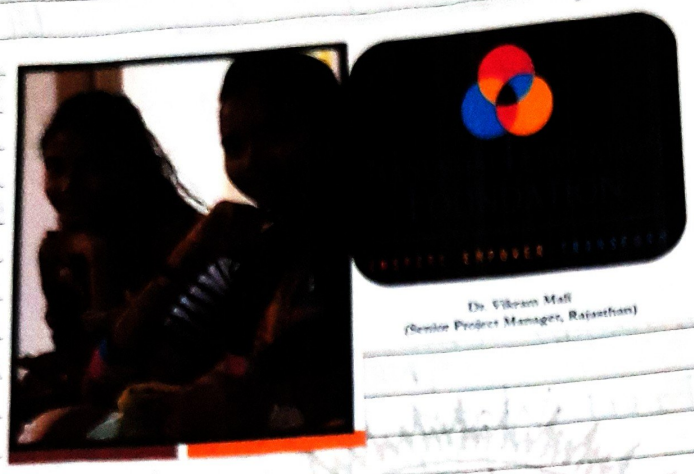
NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]

NAME OF FIELD-WORK SUPERVISOR :-
Dr. Vikram Mali
[Senior Project Manager]

NAME OF FACULTY SUPERVISOR :-
Dr. Parul Tyagi

- Goal :- NEFCWT के बारे मे विस्तारपूर्वक जानकारी प्राप्त करना व वह कब स्थापित हुआ उस बारे मे जानकारी होना।

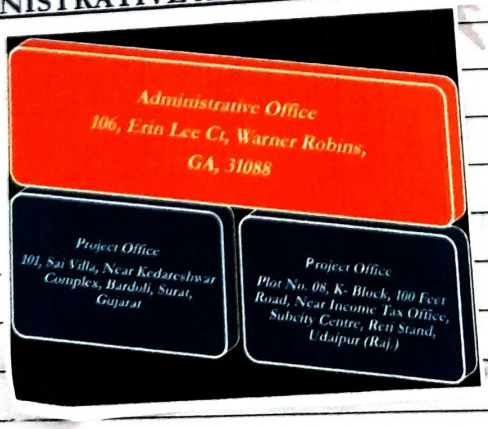
- Objective :-
- NEFCWT को शुरुआती दौर से समझना।
- संस्था कब से कार्य कर रही है उस बारे मे जानकारी प्राप्त करना।
- संस्था से बालिका शिक्षा पर जानकारी प्राप्त करना।



Dr. Vikram Mali
(Senior Project Manager, Rajasthan)

ABOUT NEF

ADMINISTRATIVE AND PROJECT OFFICE



- Activity Undertaken :-

About NEFCWT -

1.	Date of Registration	2004, USA
2.	Founder	Mr. Raj Shah
3.	Executive director	Mrs. Sarah Birge [ED]
4.	Advisory Board	Twelve members, based in New York City.
5	Indian Ground Team	Mr. Vikram Mali (Senior Project Manger, Rajasthan)
		Mr. Jaydeep Singh Mahida (Project Manager, Gujrat)
	Project	Gujrat :- Surat, Tapi, Dang and Vadodara, Dhabai & Narmada.
6	Implementation	Rajasthan :- Udaipur, Dungarpur, Rajsamand and [Jodhpur] [with Refugee People]
	Area's	Uttar Pradesh :- Varanasi, Mirzapur and Lucknow.

Good

MISSION & VALUE

- Mission And Value

नानूभाई एज्युकेशनल फाउंडेशन चेरीटेबल एंड वेल्फेयर ट्रस्ट आर्थिक रूप से कमजोर ग्रामीण छात्रो पर बडे पैमाने पर और अच्छे तरीके से सकारात्मक प्रभाव डालने के लिए काम करता है। पिछले एक दशक से NEFCWT ने गुजरात और राजस्थान मे ग्रामीण समुदायो के साथ मिलकर काम किया है।

NEFCWT के मूल्यो मे शामिल है -

1. उत्कृष्टता
2. पारदर्शिता
3. सांस्कृतिक संवेदनशीलता
4. प्रभाव और मापनीयता
5. स्थिरता और मापनियता

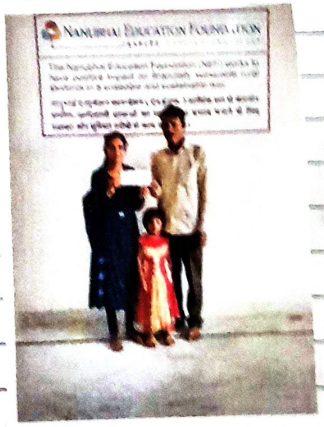
- Project Goal :-

गुजरात और राजस्थान के ग्रामीण आदिवासी जिलो की युवा महिलाएँ कालेज शिक्षा प्राप्त करेंगी और वित्तीय सहायता के माध्यम से उच्च शिक्षा मे वृद्धि करेंगी।

- Project Objective :-

- उच्च शिक्षा मे लडकियों की भागीदारी मे सुधार करना
- ड्राप - आउट दर को रोकने के लिए।
- उन्हे अपनी शिक्षा पूरी करने मे सक्षम बनाने के लिए एक मंच प्रदान करना।
- शिक्षा और अन्य सहायता के माध्यम से आदिवासी लड़ की जीवन स्थिति को बदलने के लिए।

NANUBHAI SCHOLARS PROJECT BACKGROUND



- वंचित वर्गों से उच्च शिक्षा प्राप्त करने के लिए सकारात्मक माहौल बनाना।
- समुदाय के साथ ग्राम शिक्षा समिति (वीईसी) की भूमिका को बढ़ाने के लिए

Targeted Beneficiaries :-

आर्थिक रूप से कमजोर 12 वीं कक्षाएं 17 से 20 वर्ष के स्कूली आयु वर्ग में अलग-अलग ड्रेस में पढ़ रही हैं और कॉलेज / उच्च शिक्षा में भाग लेना चाहती हैं

Expected Outcomes :-

The long term Out-Put-

- लड़कियों की समग्र शैक्षिक स्थिति में सुधार होगा।
- ड्रॉप आउट अनुपात कम हो जाएगा।
- उच्च शिक्षा में लड़कियों की भागीदारी में सुधार।
- विद्यार्थियों के लिए नौकरी मिलने की संभावना बढ़

Short term Out-Put :-

- 100 से अधिक लड़कियों को हर साल शिक्षा में सह
- समाज के लोगों में शिक्षा के प्रति जागरूकता का स्तर और लड़कियों का समर्थन करने के लिए बढ़
- साथी छात्राओं को चयनित में उच्च शिक्षा प्राप्त करने के लिए प्रेरित किया जाएगा विद्वान।

Project Duration :-

- चयनित लाभार्थियों को तीन वर्षीय पूर्णकालिक छात्रवृत्ति मिलेगी।
- (स्नातक तक) NEFCWT हर साल साझेदार से विद्वानों का चयन करेगा।

- जरूरतमंद जिलो मे उच्च शिक्षा प्राप्त करने के लिए सकारात्मक माहौल बनाना।
- समुदाय के साथ-2 ग्राम शिक्षा समीति (वीईसी) की भूमिका को बढाने के लिए

Targeted Beneficiaries :-

आर्थिक रूप से कमजोर 12 वीं छात्राएं 17 से 20 वर्ष के स्कूली आयु वर्ग मे अलग-2 स्ट्रीम मे पढ रही है और कालेज / उच्च शिक्षा मे भाग लेना चाहती है

Expected Outcomes :-

The long term Out-Put -

- ✓ लड़कियों की समग्र शैक्षिक स्थिति मे सुधार होगा।
- ✓ ड्रॉप आउट अनुपात कम हो जाएगा।
- ✓ उच्च शिक्षा मे लड़कियो की भागीदारी मे सुधार।
- ✓ विद्यार्थियो के लिए नौकरी मिलने की संभावना बढ़ेगी।

Short term Out-Put :-

- 100 से अधिक लड़कियो को हर साल शिक्षा मे सहयोग।
- समाज के लोगो मे शिक्षा के प्रति जागरूकता का स्तर और लड़कियो का समर्थन करने के लिए बढ़ोतरी।
- साथी छात्राओं को चयनित मे उच्च शिक्षा प्राप्त करने के लिए प्रेरित किया जाएगा विद्वान।

Project Duration :-

- चयनित लाभार्थियो को तीन वर्षीय पूर्णकालिक छात्रवृत्ति मिलेगी।
- (स्नातक तक) NEFCWT हर साल साझेदार स्कूलो से विद्वानो का चयन करेगा।

छात्राओं को छात्रवृत्ति का चेक व उत्कृष्टता पुरस्कार दिए

उदयपुर। नानू भाई एजुकेशन फाउंडेशन का प्रथम वार्षिक समारोह राजकीय कन्या उच्चाधि में हुआ। संस्थान की छात्रवृत्ति परियोजना से जुड़ी उदयपुर, डूंगरपुर, राजसमंद जिलों के ग्रामीण एवं आदिवासी क्षेत्रों की लगभग 200 छात्राएं अपने माता-पिता उपस्थित हुईं। अतिथियों ने बालिका शिक्षा को बढ़ावा देने हेतु प्रेरित किया। अतिथियों ने छात्राओं को छात्रवृत्ति का चेक वितरित किया। प्रतिभाशाली छात्राओं को उत्कृष्टता पुरस्कार भी दिए गए। इस वर्ष की नानूभाई छात्रवृत्ति आवेदन प्रपत्र का विमोचन भी किया गया। मुख्य अतिथि संयुक्त निदेशक माध्यमिक शिक्षा विभाग भारत कुमार बेहता, विशिष्ट अतिथि शारीरिक शिक्षा विभाग पोलिटेक्निक कॉलेज के डॉ. डॉ. [illegible] शंकर व्यास, अकादमिक विभाग पोलिटेक्निक कॉलेज के डायरेक्टर डॉ. कृष्ण कान्त देव, बैनी संघन संस्थान निदेशक मोनिका बेलाल, नानूभाई एजुकेशन फाउण्डेशन गुजरात के ट्रस्टी विक्रम सिंह मौजूद थे। इस चेक पर उदयपुर स्कूल ऑफ सोशल वर्क की सहायक प्रोफेसर डॉ. अनुकीर्ति राव, समर्थ सेवा संस्थान निदेशक विवेक अग्रवाल उदयपुर और राष्ट्रभाषि रेजीडेन्सी प्रधानाचार्य उर्मिला त्रिवेदी उपस्थित थे।

37 को छात्रवृत्ति दी

उदयपुर | नानू भाई एजुकेशन फाउंडेशन का नानू भाई छात्रवृत्ति एवं हस्ताक्षर कार्यक्रम शनिवार को हुआ। इसमें ग्रामीण व आदिवासी क्षेत्रों के स्कूलों से चयनित 37 प्रतिभावान छात्रों को छात्रवृत्ति देकर प्रोत्साहित किया गया।

• SCHOLARSHIP BENEFITS :-

1) प्रत्येक छात्रवृत्ति की राशि आवेदक को कॉलेज सीट के लिए ली जाने वाली कुल फीस (ट्यूशन, छात्रावास शुल्क, कमरे का किराया, कॉलेज का खर्च, भोजन, पाठ्यपुस्तकें आदि) पर निर्भर है - लेकिन रुपये से अधिक नही होगी [30,000] प्रति आवेदक।

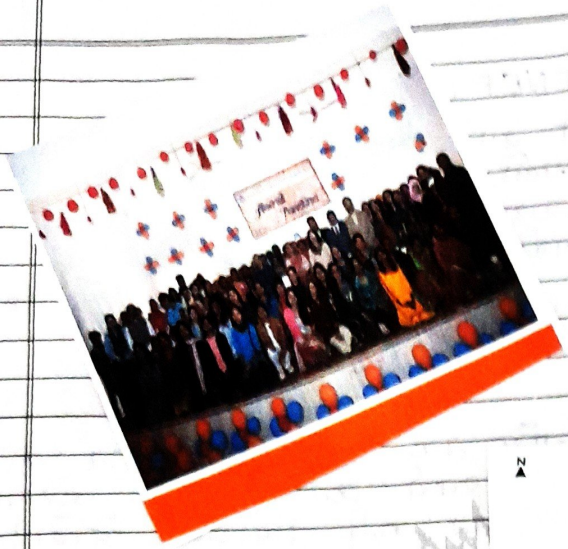
2) NEFCWT 33,000 रुपये तक की कुल लागत का 90% तक कॉलेज के खर्च का भुगतान करेगा। शेष लागतों के लिए प्राप्त कर्ता जिम्मेदार होंगे।

• Interpretation :-

हम NEFCWT के इंडक्शन प्रोग्राम से उनके मिशन और वैल्यू के जानकारी प्राप्त कर चुके है, कि किस प्रकार NEFCWT आर्थिक रूप से कमजोर वर्ग की छात्राओं को छात्रवृत्ति प्रदान कर उन्हे आगे बढ़ने के लिए प्रेरित कर रहा है। NEFCWT उन्हे एक मंच प्रदान कर छात्राओं को प्रेरित करता है और अपनी पढ़ाई को पूरी करने के लिए पूर्ण रूप से सहयोग करता है।

• Self Evaluation :-

किस प्रकार से एक संस्था बिना किसी स्वार्थ या निःस्वार्थ भाव बालिकाओ की शिक्षा पर कार्य कर रही है और उन्हे सक्षम बनाने का पूर्ण रूप से प्रयास कर रही है और कैसे ग्रामीण क्षेत्र की छात्राओ को प्रोत्साहित करती है जिससे अध्ययन कर वह अपने व अपने परिवार को सहायता कर सकें।



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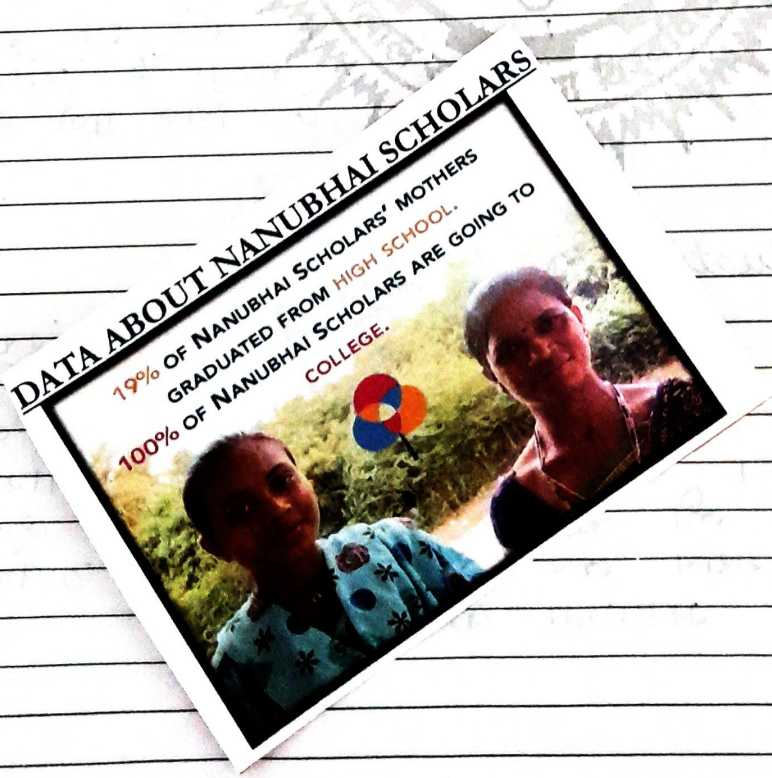
DATA ABOUT NANUBHAI SCHOLARS
19% OF NANUBHAI SCHOLARS' MOTHERS GRADUATED FROM HIGH SCHOOL.
100% OF NANUBHAI SCHOLARS ARE GOING TO COLLEGE.

- Learning / Outcomes :-

बालिका शिक्षा पर महत्व देकर यह संस्था समाज के लिए एक उदाहरण बन कर आयी है।

- Future Plan :-

अब आगे इस संस्था के ~~a~~ प्रोजेक्ट एवं कैसे छात्राओं का डाटा विश्लेषण करते है उसके बारे में कार्य करेंगे।

REPORT- 3
[NEFCWT]

Maintain NGO's

Register.

REPORT - 3

DATE :- 4 February 2022

TIMING :- 10:00 [AM] to 6:00 [PM]

NAME OF AGENCY :- NanuBhai Educational Foundation charitable and welfare Trust [NEFCWT]

NAME OF FACULTY SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]

NAME OF FIELD-Work SUPERVISOR :- Dr. Parul Tyagi

- Goal :- NEFCWT संस्था मे ~~छ~~ रजिस्टर कैसे मेनटेन किये जाते है उसकी जानकारी प्राप्त करना।

- Objective :-
  - संस्था के रजिस्टर को निर्धारित करना।
  - रजिस्टर के माध्यम से संस्था के बारे मे कैसे जानकारी रजिस्टर मे रखते है उसे समझना।
  - कैसे पुराने लेटर को रजिस्टर मे एकत्र करते है वह समझना।

- Activity Undertaken :-

संस्था मे आप प्रैक्टिकल रूप से कार्यरत है जिसमे फिल्ड सुपरवाईजर द्वारा बताया गया कि जब संस्था मे कोई लेटर आता है तो उसे कैसे रजिस्टर मे निर्धारित किया जाता है

1) जब संस्था मे कोई लेटर आकता या जाता है तो उसे 'इनवर्ट' व 'आउटवर्ट' रजिस्टर मे डिस्पेच किया जाता है।

2) जब संस्था मे दूसरे कॉलेज या भ्रू दूसरी संस्था से लेटर आता है तो उसे 'इनवर्ट' रजिस्टर मे डिस्पेच किया जाता है,

3) जब संस्था से लेटर कही ओर जाता है, तो उसे 'आउटवर्ट' रजिस्टर मे डिस्पेच किया जाता है।

'इनवर्ट व आटवर्ट' दोनो रजिस्टर मे डिस्पेच करने के लिए लेटर के ऊपर लेफ्ट साइड मे एक डिस्पेच नं. होता है उससे उस लेटर को रजिस्टर मे डिस्पेच किया जाता है। जिससे एक रिकार्ड मेनटेन रहता है।

- Interpretation :-

डिस्पेच रजिस्टर से संस्था मे लेटर कहां से आया है व संस्था से कितने लेटर कहां भेजे गये है उसका डाटा संग्रह रहता है तथा जिससे डिस्पेच नं. देखकर ही पता चलू जाता है कि यह लेटर कब और किसके यहां से आया है और रजिस्टर मे एंट्री रहती है और कार्यो मे एक अच्छी लय बनी रहती है।

- **Self Evaluation :-**

आज यह डिस्पेच रजिस्टर कार्य करके संस्था मे Receive डाटा को कैसे रखा जाता है उसके बारे मे सिखा। जिससे पता चलता है कि लैटर कितने व कहा से आए है।

- **Learning / Outcomes :-**

कैसे समाज कार्य मे कार्यरत संस्था मे रजिस्टर (इनवर्ड व आउटवर्ड) को डिस्पेच करते है वह सिखने को मिला।

- **Future Plan :-**

आगे हम देखेंगे कि जब फील्ड पर काम करते है, तो कैसे उसे सभी ट्रेक किया जाता है।

Report - 4
[NEFCWT]
Tracking
Report.

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Report - 4

Nanubhai Educational Foundation Charitable & Welfare Trust ★ Rajasthan

- DATE :- 5 February 2022
- TIMING :- 10:00 (am) to 6:30 [PM]
- NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD-WORK SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]
- NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

- Goal :- संस्था मे जब फील्ड पर काम होता है तो उसकी ट्रेकिंग रिपोर्ट बनाना।

- Objective :-
  - फील्ड मे काम करने के बाद एक ट्रावेल या ट्रेकिंग रिपोर्ट बनाना।
  - फील्ड मे क्या-क्या काम किया व कितने लोग थे उसकी रिपोर्ट बनाना।
  - ट्रेकिंग रिपोर्ट को फार्मेट मे लिखना।

Field Visit Tracking Report 2019-20

[Udaipur / Dungarpur / Rajsamand / Jodhpur

1) Total no of school visited

[UDR - 36 / DNGPR - 23 / RJMD - 18 / JODH - 1]

= 78

2) Total km. Travel

[UDR - 1452 / DNGPR - 1070 / RJMD - 1382 / JODH - 900]

= 5044

3) Duration of field visited

= 1 month U/D/R/J

4) Total covered block & village -

[UDR - 36 / DNGPR - 23 / RJMD - 18 / Jodh - 4]

= 81

5) Visited Deo & Joint director Off

(1 time)

) Community Outreach -

[UDR - 200 / DNGPR - 350 / RJMD - 250 / JODH - 100] = 900

Field Visit Tracking Report - 2018-19

[Udaipur / Dungarpur / Rajsamand]

1) Total no of school visited

[UDR - 40 / DNGPR - 27 / RJMD - 16]

= 83

2) Total km. Travel

[UDR - 1448 / DNGPR - 1170 / RJMD - 567] -

= 3145

3) Total Duration of field Work

[UDR / DNGPR / RJMD]

= 1.5 month

4) Total Covered block & village

[UDR - 40 / DNGPR - 27 / RJMD - 19]

= 82

Visited Deo & Joint director Off

= 1 time

Community Outreach

[UDR - 261 / DNGPR - 200 / RJMD - 100]

= 561

...d Visit Tracking Report - 2018 (Rajsamand)

Tracking

...hool Visited (Rajsamand) - 16

...km Travel - 567 km.

...ation of field visit - 1 month

...al Covered block & village (no) - 15

Visited Deo & Joint director Off - (1 time)

Community outreach - 100 People. (Included school Principal & staff & local community people

) (Rajsamand) - 1 + deo of.

Mohi - 1

Dhoinda - 1

Kankroli - 2

Khamnor - 2

Malela - 1

Sema - 2

Delwada - 1

Kotharia - 1

Nuthdwara - 1

Charbhuja - 1

Kelwada - 1

- Activity Undertaken :-

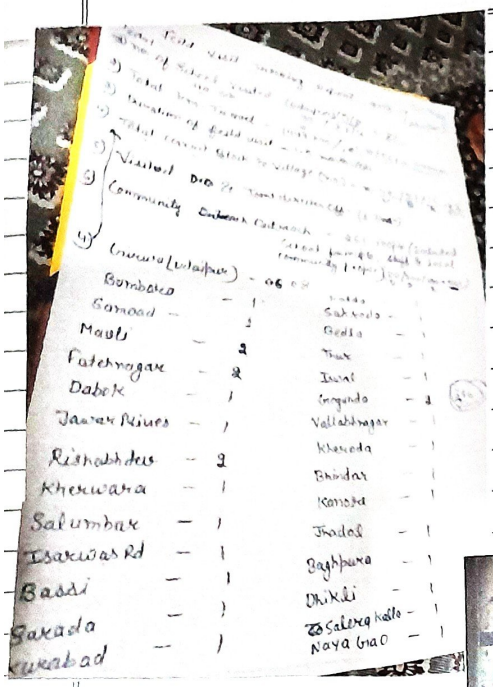
आज NEFCWT जिस फील्ड एरिया मे काम करता है उसकी फील्ड विज़िट की ट्रेकिंग रिपोर्ट बनाना।

1) फिल्ड मे काम करते समय ट्रेक करना। NEFCWT ने डूंगरपुर, राजसमंद, उदयपुर व जोधपुर मे जो भी पिछले 5 वर्षो मे फील्ड विज़िट की है, उसकी रिपोर्ट तैयार करना।

2) उस रिपोर्ट मे कितने स्पूल विज़िट किये?, कितने Km. ट्रेवल किया, उस जगह जाने मे कितना समय लगा, कितने गांव व ब्लॉक मे काम किया या विज़िट किये, जाईट डायरेक्टर से कितनी बार मिटिंग की, व कितने लोगो के बीच मे काम किया। यह सभी उस ट्रेकिंग रिपोर्ट मे मेनशन किया जाता है।

उस रिपोर्ट इस फॉरमेट मे 2 तरीके से किया जाता है पहले उसको Excel मे कैसे करते है फिर उसे Word मे करना। तथा यह सब सिखने के बाद आखिरी मे कम्प्यूटर के Excel मे Format बनाकर डाटा चढ़ाना। तथा उसका Pie-chart तैयार करना। और 5 साल के ट्रेकिंग को Record मे रखना।

- Interpretation :- ट्रेकिंग रिपोर्ट जो कि फील्ड विज़िट के बाद बनायी जाती है उससे पिछले 5 वर्ष मे संस्था द्वारा जिस भी Area मे काम किया गया है उसका Record तैयार हो जाता है। और उससे यह पता चलता है कि कितने समय मे कितने Km. ट्रेवल किया कितने गॉवो मे कार्य किया, तथा कितने लोगो से मिले। यदि इसका डाटा होता है



Field visit running report

1) No. of School visited (Rajsamand) - 16

2) Total km travel - 1564 km

3) Duration of field visit - 1 month

4) Total covered block & village (no) - 15

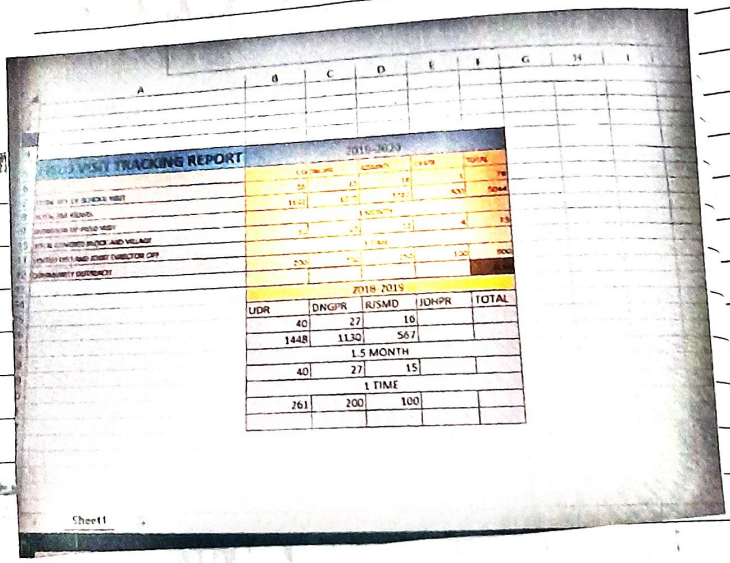
5) Visited Deo & Joint director off - (2 times)

6) Community Outreach - 100 people (included school & local community)

4) Gurwa (Udaipur) - 06 08

Bombaro - 1
Samoad - 1
Mauli - 2
Fatehnagar - 2
Dabok - 1
Jawar Mines - 1
Rishabhdev - 2
Kherwara - 1
Salumbar - 1
Isarwas Rd - 1
Bassi - 1
Sarada - 1
Kurabad - 1

Kalda
Sahrada - 1
Bedla - 1
Thur - 1
Iswal - 1
Gogunda - 2
Vallabhnagar - 1
Kheroda - 1
Bhindar - 1
Kanora - 1
Jhadol - 1
Baghpura - 1
Dhikli - 1
Salera Kalla - 1
Naya Gao - 1



FIELD VISIT TRACKING REPORT

2019-2020

	1 OCTOBER	1 JANUARY	1 MAY	TOTAL	
[illegible]	[illegible]	[illegible]	16	1	79
[illegible]	1130	[illegible]	[illegible]	630	5044
	1.5 MONTH				
[illegible]	[illegible]	[illegible]	15	4	15
	1 TIME				
[illegible]	200	100	200	100	500

2018-2019

UDR	DNGPR	R/SMD	JDHPR	TOTAL
40	27	16		
1448	1130	567		
1.5 MONTH				
40	27	15		
1 TIME				
261	200	100		

Sheet1

Field visit running report

1) No. of School visited (Rajsamand) - 16

2) Total km travel - 1564 km

3) Duration of field visit - 1 month

4) Total covered block & village (no) - 15

1) No. 5) Visited Deo & Joint director off - (2 times)

2) 6) Community Outreach - 100 people (included school & local community)

3) 4) (Rajsamand) - 1 + dec of

4)
Mohi - 1
5) Dnoinda - 1
Kankreli - 2
6) Khamnor - 2
Malela - 1
4) Sema - 2
Delwada - 1
Kathania - 1
Nuthdwara - 1
Charbhuja - 1
Kelwada - 1

तो आगे कभी भी संस्था के Record में जाकर देखा जा सकता है कि पिछले 5 वर्ष में कितना कार्य किया गया।

- **Self Evaluation :-**

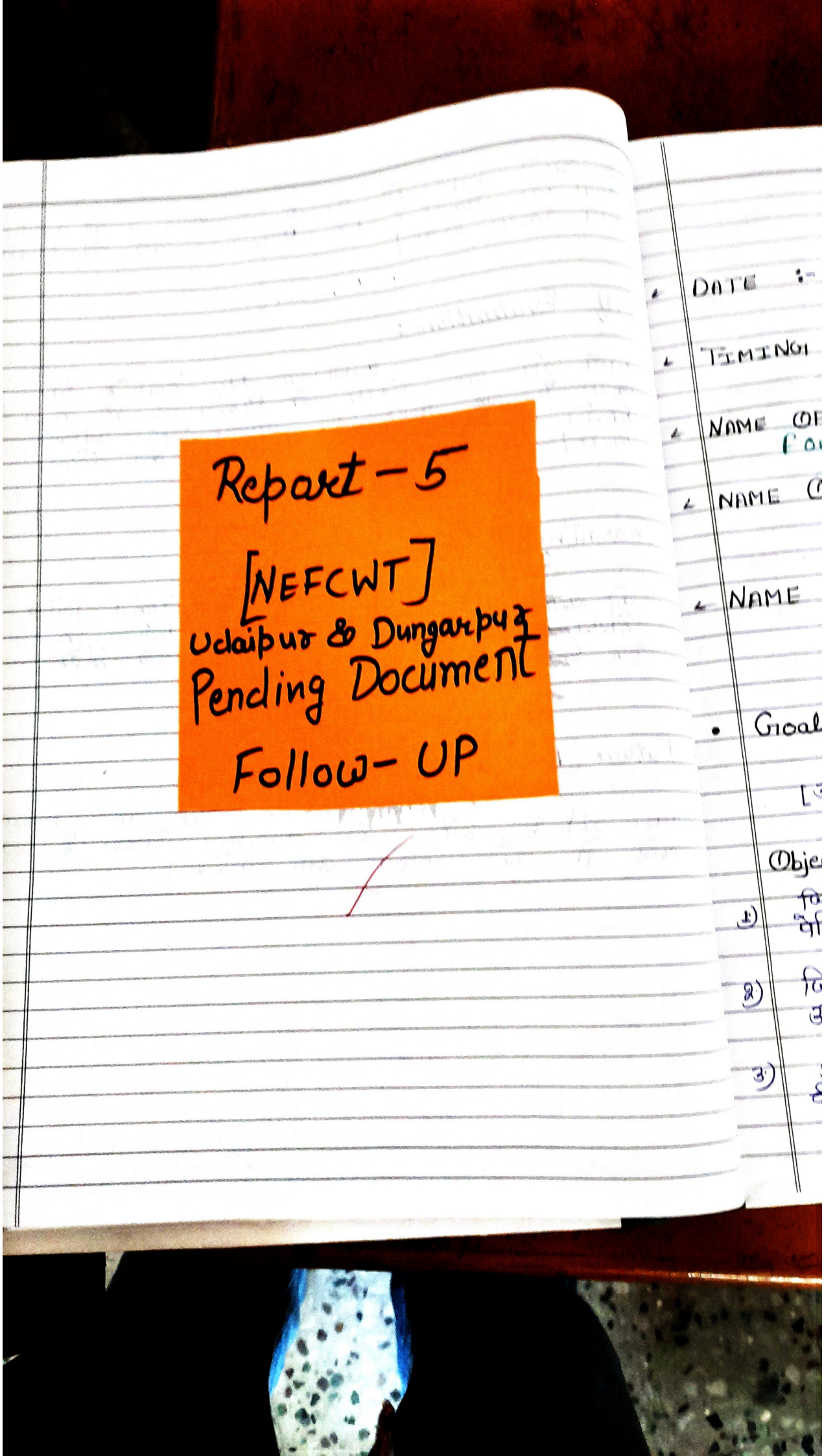
इससे यह सिद्ध होता है कि जहां भी यह संस्था ने पिछले 5 वर्ष में कार्य किया है वह कहां तक सफल रहा और कितने लोगों तक इस संस्था का संदेश गया।

- **Learning / Outcomes :-**

कैसे किसी ट्रेकिंग रिपोर्ट को बनाया जाता है और जब फील्ड विज़िट के दौरान जब ट्रवेल किया जाता है तो उसे कैसे ट्रैक किया जाता है।

Future Plan :-

आगे हम जिन छात्राओं को छात्रवृत्ति मिल रही है, और उनके डाक्यूमेन्ट पेंडिंग है उस बारे में उन्हें फोलो-अप करेंगे।


Report - 5
[NEFCWT]
Udaipur & Dungarpur
Pending Document
Follow- UP
DATE :-
TIMING
NAME OF
NAME
NAME
Goal
Obje

Report - 5

Nanubhai Educational Foundation Charitable & Welfare Trust Rajasthan

- DATE :- 11 February 2022
- TIMING :- 10:30 (AM) to 6:30 (PM)
- NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD-WORK SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]
- NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

• Goal :- जिन छात्राओं के डाक्यूमेन्ट पेंडिग है उन्हे फोलो - अप करके उनसे डाक्यूमेन्ट मंगवाना। [उदयपुर व डूंगरपुर की छात्राओं को फोलो -अप करना]

Objective :-

1) जिन छात्राओ की मार्कशीट या और कोई डाक्यूमेन्ट पेंडिग उनसे डाक्यूमेन्ट मंगवाना।

2) जिन छात्राओ के आय प्रमाण पत्र, पहचान पत्र या आधार कार्ड नही है उनको फोलो अप करना।

3) उदयपुर व डूंगरपुर की छात्राओं जिन्हे छात्रवृत्ति दी जा रही है उनका फोलो - अप।

- **Activity Undertaken :-**

NEFCWT मे जिन छात्राओं को उदयपुर व डूंगरपुर मे छात्रवृत्ति मिल रही है उन छात्राओं को फोलो- अप किया। करीब [50] छात्राओं का फोलो अप।

1) उदयपुर मे जिन छात्राओं को छात्रवृत्ति दी जा रही है उन्हे फोन करके उनसे उनके डाक्यूमेन्ट मंगवाने का कार्य किया। उनकी सभी छात्राओं की फाइल को एक-एक करके उनका विश्लेषण किया जिससे पता चला कि सभी की फाइल मे कुछ-ना कुछ डाक्यूमेन्ट पेंडिंग है।

2) डूंगरपुर मे भी अलग-2 गॉव की छात्राएं है जो अलग-2 गॉव मे रहती है और NEFCWT जिन्हे छात्रवृत्ति देता है। उन्हे भी फोलो-अप किया।

[Document Required]

- 10वीं, 11वीं व 12वीं की मार्कशीट
- राशन कार्ड
- आय प्रमाण पत्र
- पहचान पत्र
- कॉलेज या सेमेस्टर है तो उसकी मार्कशीट
- आधार कार्ड
- जन आधार-कार्ड इत्यादि।

फोलो-अप मे यह सभी डाक्यूमेन्ट के बारे मे, उनसे बात-चीत कर उनसे उनके पेंडिंग डाक्यूमेन्ट मगवाए गए।

- **Interpretation :-**

जिन उदयपुर व डूंगरपुर की छात्राओं को फोलो-अप किया। उनके जो पेंडिंग डाक्यूमेन्ट है उसके लिए उनके साथ कम्यूनिकेट किया गया वो छात्राएं छात्रवृत्ति के लिए आवेदन कर चुकी है

और अब उनका फोलो-अप लिया। जिससे यह पता चल सके कि किन छात्राओं के कौन-2 से डाक्युमेन्ट पेंडिंग है, और उन्हे कब तक भेजने है वह भी बताया, जिससे उनकी फाइल मे उनके नए डाक्युमेन्ट अटेच कर दिए जाएं, और उन्हे जिससे समय पर छात्रवृत्ति मिल जाएं।

← Self Evaluation :-

संस्था मे यदि किसी छात्रा की फाइल मे कोई डाक्युमेन्ट पेंडिंग है तो उसे आगे छात्रवृत्ति भेजने मे संस्था में बहुत परेशानी होती है

← Learning / Outcomes :-

इससे यह निष्कर्ष निकलता है कि फोलो-अप से वो आगे अब छात्रवृत्ति से कितना अध्ययन कर पा रही है और कर लिया है उसकी पानकारी संस्था के पास रहती है।

← Future Plan :-

आगे हम जोधपुर व राजसमंद की छात्राओं का फोलो-अप करेंगे।

Report - 6

- DATE :- 12 February 2022
- TIMING :- 10:30 [AM] to 6:00 [PM]
- NAME OF AGENCY :- Nanubhai Education foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]
- NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

- **Goal :-**

जोधपुर व राजसमंद मे पिन छात्राओं के डोक्यूमेन्ट पेन्डिंग है उनका फोलो - अप लेना।

- **Objective :-**

जोधपुर व राजसमंद मे पिन छात्राओं को छात्रवृत्ति दी जा रही है उनका फोलो - अप लेना।

उनसे फोलो - अप करके उनके पेंडिंग डोक्यूमेन्ट मंगवाना।

पिनकी मार्कशीट नही आयी है उन्हे कम्यूनिकेट करना।

- Activity Undertaken :-

राजसमंद व जोधपुर मे जिन छात्राओं को छात्रवृत्ति मिल रही है उन 50 छात्राओं को फोलो अप किया।

1) जोधपुर मे NEFCNT रिफ्यूजी लोगों के साथ काम करता है वह जोधपुर मे जिन छात्राओं को छात्रवृत्ति दी जा रही है, उन्हे फोन करके उनको फोलो अप किया। उन सभी की छात्राओं की फाइल को एक-२ करके चेक किया, जिसमे सभी छात्राओं के कुछ न कुछ डाक्युमेन्ट पेंडिंग है फिर उनसे फोलो अप लेकर उनके डाक्युमेन्ट मंगवाने का कार्य किया।

2) राजसमंद मे इसी तरह से एक-२ करके सभी छात्राओं को फोलो- अप किया। और उनके पेंडिंग डॉक्युमेन्ट उन्हे भेजने के लिए कहा।

[Document Required]

- 10वीं, 11वीं व 12वीं मार्कशीट।
- सेमेस्टर या साल की मार्कशीट।
- आधार कार्ड।
- जनक आधार कार्ड।
- राशन कार्ड।
- आय प्रमाण पत्र।
- जोधपुर मे रिफ्यूजी है तो उनका पासपोर्ट भी।

फोलो-अप मे इन सभी डाक्युमेन्ट के बारे मे बात-चीत कर उनसे उनके पेंडिंग डाक्युमेन्ट के लिए कहा जाता है।

- **Interpretation :-** विन प्रोयपुर व राघवसमंद की छात्राओं को फोलो- अप किया। उनसे उनके डाक्युमेंट मंगवाए गए। उन छात्राओं को पहले से ही छात्रवृत्ति मिल रही है। अब उनका फोलो अप लिया। जिससे उनके पेंडिंग डॉक्युमेन्ट संस्था के पास आ जाए और वे समय पर उन्हें आगे की छात्रवृत्ति दे सकें।

- **Self Evaluation :-**

यदि संस्था में किसी छात्रा के डॉक्युमेन्ट कम्पलीट नहीं होते है तो उन्हें अध्ययन करने के लिए आगे की छात्रवृत्ति देना संस्था के लिए मुश्किल हो जाता है।

- **Learning / Outcomes :-**

फोलो अप लेने से उनसे कम्युनिकेशन बना रहता है और वो आगे क्या अध्ययन कर रही है उसका भी पता संस्था को रहता है।

- **Future Plan :-**

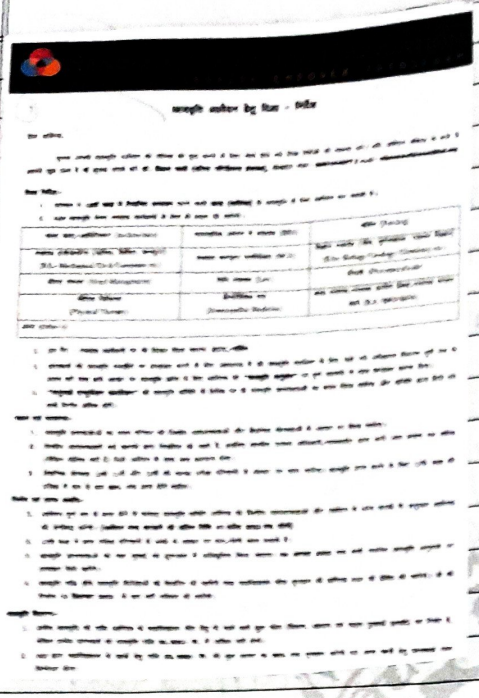
आगे हम NEFCWT की फील्ड पर जाने की तैयारी करेंगे।

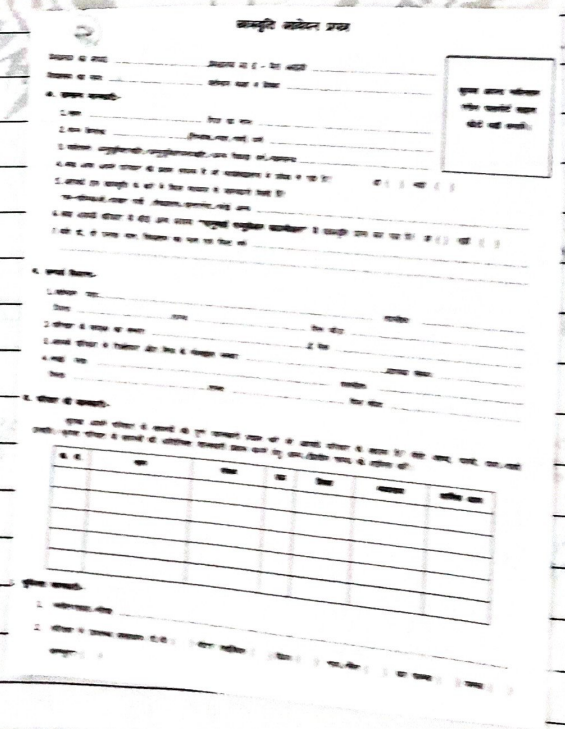
Report - 7

- DATE :- 18 February 2022
- TIMING :- 10:00 [AM] to 6:00 [PM]
- NAME OF AGENCY :- Nanu Bhai Educational Foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD-WORK SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]
- NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

- Goal :- आज NEFCWT की फील्ड पर जाने की तैयारी करेंगे।
- Objective :-

1) NEFCWT फील्ड मे कैसे काम करना है उसकी तैयारी करना।
2) फील्ड मे क्या ले कर जाना है उसके बारे मे बताया।
3) किस तरीके से फील्ड मे जाया जाता है उसके बारे मे जानकारी प्राप्त करना।





- **Activity Undertaken :-** फील्ड विज़िट करने से पहले जिन भी वस्तुओं की जरूरत पड़ने वाली है उसकी जानकारी दी गई।

1) फील्ड मे जाते वक्त सभी को फार्मल ड्रेस - अप लेना होता है, अभी यह स्कूल फील्ड विज़िट पर जाने की तैयारी है, इसमें बताया गया कि स्कूल मे जाने के बाद कैसे और क्या करना है।

2) फील्ड सुपरवाईजर द्वारा बताया गया कि स्कूल का समय 8 से 4 बजे तक होता है जिसमे हमे इसी बीच स्कूल विज़िट करनी है। और स्कूल मे जाने के बाद छात्रवृत्ति के बारे मे स्कूल की प्रिंसिपल से मिलना है, उन्हे NEFCWT की छात्रवृत्ति योजना के बारे मे बताना है।

3) उन्हे सबसे पहले रिक्वेस्ट लेटर और एप्लीकेशन फॉर्म देने है जो 12वीं की छात्रा जो आर्थिक रूप से कमजोर उनकी एप्लीकेशन फॉर्म भेजने को बताया गया।

सर ने बताया प्रिंसिपल से या क्लास टिचर या यदि सीधा बच्चो से मिलने का मौका मिलता है तो कैसे उनसे बात की जाती है उस बारे मे बताया गया।

- **Interpretation :-** स्कूल विज़िट करते समय हमे बहुत शांत रहना है। यदि स्कूल के प्रिंसिपल नही मिलते है तो क्लास टिचर को एप्लीकेशन फॉर्म देकर आना है, बिल्कुल भी उनके सामने हँसना या किसी भी प्रकार की हलचल नही करनी है, और फॉर्मल होकर जाना है यह बताया गया।

क. तैकिनिक स्नातक कार्यक्रम: कृपया नीचे दिये गये स्नातक कार्यक्रमों में से चयनानुसार रद्दीकित करायें जिसमें आप अपनी अभिरुचि द्वारा स्नातक कार्यक्रम में भाग लेना चाहेंगे।

वास्तु कला/आर्किटेक्चर (Architecture)	व्यवसायिक प्रबंधन में स्नातक (BBA)	नर्सिंग (Nursing)
स्नातक इंजीनीयरिंग (यांत्रिक, सिविल, कम्प्यूटर) (B.E.- Mechanical/Civil/Computer etc.)	स्नातक कम्प्यूटर एप्लीकेशन (BCA)	विज्ञान स्नातक (जीव, भूगर्भशास्त्र, रसायन विज्ञान) (B.Sc- Biology/Geology/Chemistry etc.)
होटल प्रबंधन (Hotel Management)	विधि स्नातक (Law)	औषधी (Pharmaceuticals)
भौतिक चिकित्सा (Physical Therapy)	होम्योपैथिक वैद्या (Homeopathic Medicine)	कला स्नातक/स्नातक शारीरिक शिक्षा/स्नातक समाज कार्य (B.A./BPE/BSW)
अन्य (Other's):		

घोषणा

मैं ..... तो की उपरोक्त सूचना मेरे द्वारा लिखी गई है यह पूर्णतया सत्य है। यदि अगर यह सूचना असत्य या गलत प्रमाणित होती है तो कृपया कर मेरे द्वारा प्राप्त की जा रही छात्रवृति को **"नानुभाई एज्यूकेशन फाउन्डेशन"** द्वारा विधिवत कानूनी कार्यवाही कर पूर्णतया निरस्त किया जा सकता है और मैं इसके लिए पूर्ण रूप से राजमत हूँ।

हस्ताक्षर विद्यार्थी

दिनांक:

हस्ताक्षर माता-पिता

दिनांक:

स्थान:

कृपया इस छात्रवृति आवेदन प्रपत्र के साथ निम्नलिखित दस्तावेजों की **(प्रतिलिपी)** को संलग्न करें और कृपया अपने प्रत्येक दस्तावेजो के पीछे अपना नाम अंकित करें।

- प्रमाण/प्रगति - पत्र 10 वीं 11 वीं एवं 12 वीं हस्ताक्षरमय संस्था प्रधान, विद्यालय द्वारा प्रमाणित। ( )
- आय प्रमाण - पत्र (अधिकारिक प्रति) ( )
- राशन कार्ड ( )
- 01 नवीनतम रंगीन पासपोर्ट साइज फोटो ( )
- अनापत्ति प्रमाण पत्र (NOC) विद्यालय द्वारा प्रमाणित/प्रेषित ( )
- आधार कार्ड ( )
- राजस्थान जनआधार कार्ड ( )

छात्रवृति आवेदन पत्र को भरकर नीचे दिये गये पते पर भेजें/सम्पर्क करें:-

डॉ. विक्रम नाली (वरिष्ठ परियोजना प्रबंधक) नानुभाई एज्यूकेशन फाउन्डेशन, 08- के- ब्लॉक, 100 फीट रोड, आयकर कार्यालय के पास, सर्वसिटी सेन्टर, रेती स्टेण्ड, जिला- उदयपुर, राज्य- राजस्थान, पिन कोड- 313001 **(मोबाईल नं. 9887444677)**

Self Evaluation :- कही पर भी प्रोफेशनल काम से जाना है तो फॉर्मल और शांत स्वभाव से जाना चाहिए।

Learning Outcomes :-

स्कूल विज़िट के समय प्रिंसिपल और टिचर व बच्चो के साथ कैसे कम्यूनिकेट करना है वो सिखा।

Future Plan :-

आगे भी स्कूल विज़िट की करते समय जो भी और बातें है जिनका ध्यान रखा जाएं उस बारे मे बताया गया।

Report - 8

- DATE :- 19 February 2022
- TIME :- 10:30 [AM] to 6:30 [PM]
- NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD-WORK SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]
- NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

Goal :- कौनसी टीम बनेगी ? कैसे और कब जाएगी, आज वह बताया।

Objective :-

1) हम ~~कर~~ 5 लोग थे, उन मे से कौन कहां जाएगा।
2) किसके साथ कौन कब और कैसे जाएगा।
3) कितने स्कूल विजिट करना है वो भी।

Report - 8
[NEFCWT]

School Visit
Preparation
Part-2

← DATE

← TIME

← NAME

← NAM

← NAM

Go

1.)

2.)

3.)

① Udaipur

① Residency :-			
1) Rita Chandla	2017	B.COM	Govt. Meera Girls Clg
2) Lakshita Nandwana	2017	B.COM	Govt. Meera G. Clg
3) Tahira Rano	2017	B.SC	Govt. Meera girls Clg
4) Maya Dheel	2020	B.A	Guru Nanak girls
5) Gunjan Kumawat Jhala	2019	B.SC	Pg College
6) Bhawana Kumari Dhamala	2017	Nursing	University College of Science

② Mahilal Mandal.

1) Vijay Laxmi Surgavanshi	2017	B.Pharma	University Clg of Sc
2) Girja Meghwal	2019	B.SC	"

③ Gyan Mandir

1) Kirti Shrimali	2017	B.SC	University Clg of Sci
2) Twinkle Kumawat	2017	B.A	Guru Nanak girls
3) Neelam Mali	2017	B.COM	G.Meera G. Clg
4) Aryali Vasita	2017	B.Com	G. Meera G. Cl

U/S-R

→ Mavli:-

① Dabok

② Mavli (if on Road S.V.)

S.S. G.S.S.

③ Fathanagar

S.S. G.S.S.

④ Sanwar

G.S./S.S.

Note:- Most Visit Govt. G.S.S./S.S.S.

1) NEP Application - Qty-2

2) Official letter

3)

S-U

- Residecy School
- RMV
- Mahila Mandal
- Gyan Mandir
- Govt. Gr. S.S.
- Aayad
- Sukher (New)
- Savina
- Jagdish/Ambanat
- Ranpur, Sisarma
- Badgaon
- Bedlamata
- Thor

- Activity Undertaken :- आप्स फिल्ड सुपरवाईजर द्वारा यह बताया गया कि स्कूल विज़िट करने के लिए पहले team बांट दी गई। 5 लोग थे, 2-2 मे टीम बंटी। और 1 को दो जगह जाना था।

1) 4 लोग उदयपुर के स्कूल विज़िट करेंगे। NEF CMT सरकारी स्कूलों मे ही छात्रवृत्ति देता है। और जो उदयपुर के स्कूल विज़िट करेगा वो एक दिन मे कम से कम 7-10 स्कूल विज़िट करने है।

2) 2 लोग राजसमंद को कवर करेंगे, वो भी वहां पर गांव मे जाकर सरकारी स्कूल मे जाकर छात्रवृत्ति के लिए समझाएंगे।

3) 1 को फिर से किसी एक के साथ रिपिट कर कतहनगार और मावली के स्कूल को विज़िट करना है। व जो छात्राएं पहले से छात्रवृत्ति ले रही उनका नाम निकालकर प्रिंसिपल को बताना।

4) सभी को साथ मे स्कूल की लिस्ट, सिग्नेचर शीट फ्लू एप्लीकेशन फार्म, रिक्वेस्ट लेटर व रजिस्टर साथ मे लेकर जाने है और अच्छे से स्कूल टू-व्हीलर या जो सुविधा उपलब्ध हो उसमे स्कूल विज़िट करनी थी।

- Interpretation :- यह एक चैलेंज के रूप मे था। कम समय मे एक-दिन 7-10 स्कूल विज़िट और जो भी दिशा-निर्देश दिये गये है उस पालन करना। नियमबद्ध होकर कार्य करना संस्था को छात्रवृत्ति देती है उसके बारे अच्छे से जानकारी प्राप्त कर उन्हे सही जानकारी देना।

- **Self Evaluation :-** स्कूल विज़िट के दौरान टीम बाँटने से सभी को मौका मिलता है, और काम भी जल्दी हो जाता है।

- **Learning / Outcomes :-** स्कूल विज़िट करते समय यदि पहले से ही स्कूल के बारे में या उस स्कूल से यदि किसी को छात्रवृत्ति मिल रही है उसके बारे में पता चल जाए तो वह बहुत मददगार होता है।

- **Future Plan :-** आगे स्कूल विज़िट करेंगे। जिसमे ~~मि~~ हम उदयपुर के स्कूलों को विज़िट करेंगे।

Report - 9
[NEFCWT]

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Report - 9

DATE :- 25 February 2022

TIMING :- 9:00 [AM] to 4:00 [PM]

NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]

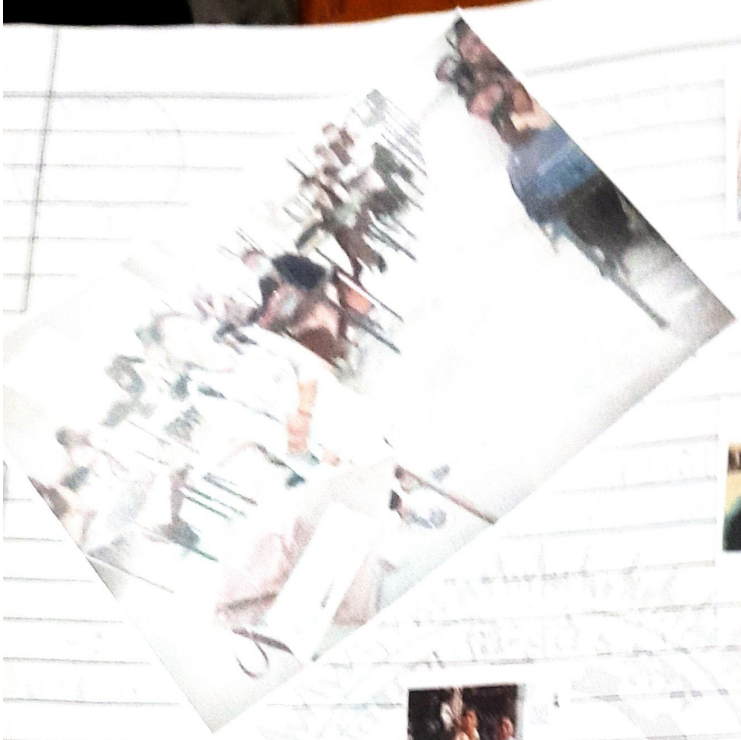
NAME OF FIELD-WORK SUPERVISOR :- Dr. Vikram Mali [NEFCWT]

NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

- Goal :- उदयपुर के स्कूल को विज़िट करना। व प्रिंसिपल से मिलकर ज्यादा-से ज्यादा बच्चों को छात्रवृत्ति के बारे मे बताना।

- Objective :-

1) ज्यादा से ज्यादा स्कूल विज़िट करना।
2) प्रिंसिपल व स्कूल मे बच्चो को छात्रवृत्ति की पूरी जानकारी देना।
3) समय पर व अच्छे से स्कूल विज़िट करना।



• Activity

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• Activity Undertaken :-

आज का पहला दिन था। उदयपुर के स्कूल विज़िट का जिसमे मेरे साथ मेरी सहपाठी 'सुरभि वर्मा' थीं। हमने मिलकर यह स्कूल विज़िट का कार्य किया। जिसमे हमारे पास उदयपुर के सिटी के सरकारी स्कूल का कार्य करने या विज़िट करने का दिन था।

1) सर्वप्रथम हमने आयड़ स्कूल विज़िट किया। वहां की प्रिंसिपल 'पार्वती मेम' से हमारी बात-चीत हुई उन्हे हमने पूरा बताया कि NEFCWT छात्राओं को छात्रवृत्ति देने का कार्य करता है तथा आयड के स्कूल का पूरा नाम 'राजकीय बालिका उच्च माध्यमिक विद्यालय, आयड़' है। तथा वहां की अध्यापिका ने हमे सिधा छात्राओं से मिलने का मौका दिया।

2) छात्राओं से मिलने के बाद हमने उन्हे छात्रवृत्ति के बारे मे पूरी जानकारी दी।

3) उन्हे बताया कि NEFCWT बालिकाओं की शिक्षा पर कार्य करता है वह 12वीं बाद ग्रेजुएशन के लिए छात्रवृत्ति प्रदान करता है।

4) उसके लिए आपके 12वीं मे मिनमम 60% होना जरूरी है तथा जिसकी आर्थिक स्थिति बिल्कुल अच्छी नही है वह उन्हे आगे अध्ययन कराने के लिए छात्रवृत्ति देता है।

5) फिर हमने उनकी अध्यापिका को बताया कि यह फॉर्म आप बालिकाओं मे बाँट दिजिएगा और समयावधि के अनुसार दिए हुए पते पर या E-mail या वाट्सअप पर मेज दिजिएगा।

6) फिर उन्होने हमेस अच्छे से बात-चीत करके सब समझ लिया, और हमने हमारी सिग्नेचर शीट पर

उनके सिग्नेचर लिये और हम दूसरे स्कूल की तरफ चले गये।

इसी तरह से कार्य सभी स्कूलो मे अप हमने किया गया था। तथा उस 1st दिन मे हमने 8 स्कूल विजिट किये। और 8 स्कूल के प्रिंसिपल व अध्यापको व छात्राओं को छात्रवृत्ति के लिए प्रेरित किया। तथा छात्रवृत्ति की सम्पूर्ण जानकारी उनको दी। जितने स्कूल विजिट किये उसकी लिस्ट इस प्रकार है।

- List Of School Visit in Udaipur.
[1st day.]

Sr.no	Name Of Principal	Name of School	Address
1)	PARVARSHI MAM	AYAD, Govt. Sr. Sec. School.	AYAD
2)	Mr. Deepak Gaud	Adarsh School	Thur
3)	Mrs. Nirmala Ashiya	GGHS.School.	Bedla
4)	Mr. Sharad Parikh	G.S.S.S, Sukher	Sukher
5)		Mahatma Gandhi S.S. School	Badgao
6)	Mrs. Ranjana Mishra	Residency school	chetak
7)	Mrs. Leela Paliwal	Gyan Mandir school	Sec. 4
8)	Mrs. Sapna Bhargav	G.S.S. School	Savina

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- Interpretation :- आज की स्कूल विज़िट अच्छे से करके व सभी स्कूलों मे छात्रवृत्ति की जानकारी दीं। जिससे अधिक से अधिक छात्राएँ यह फॉर्म भरें एवं उन्हे यह संस्था छात्रवृत्ति दे सकें। कितने स्कूलों मे बच्चों से मिलने का भी अवसर प्राप्त हुआ। तथा जिससे हम सिधा बालिकाओं को ही इस छात्रवृत्ति के बारे बता पाएं। अथवा प्रिंसिपल ने भी हमारा अच्छे से अभिवादन किया और उन्हे भी इस छात्रवृत्ति के बारे मे विस्तारपूर्वक बताया।

- Self Evaluation :- कम से कम समय मे हम 8 स्कूल विज़िट कर पाएं तथा जिससे 8 स्कूलों मे NEFCWT की छात्रवृत्ति के बारे मे अच्छे से उन्हे अवगत करा सकें।

- Learning / Outcomes :- कैसे एक स्कूल मे प्रिंसिपल से प्रोफेशनली बात-चीत की जाती है फिल्ड मे कैसे बच्चो के साथ काम किया जाता है। वह सिखा।

- Future Plan :- आगे के दिन भी स्कूल विज़िट का कार्य जारी रहेगा।

Reboxt -10
[NEFCWT]

School Visit

Day - 2

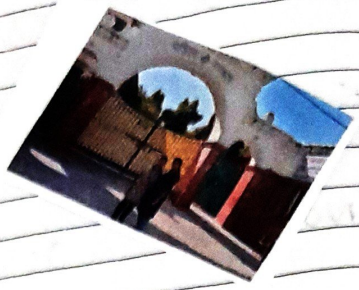
Report - 10

- DATE :- 26 February 2022
- TIMING :- 9:00 [AM] to 4:00 [PM]
- NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD-WORK SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]
- NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

- Goal :- आज भी उदयपुर के स्कूल को विज़िट करना, और छात्राओं को छात्रवृत्ति के लिए प्रोत्साहित करना।

- Objective :-

1) स्कूल विज़िट कर ज्यादा से ज्यादा छात्राओं को छात्रवृत्ति के लिए प्रेरित करना।
2) जितने स्कूल ~~में~~ विज़िट करने है वह समय पर हो जाएं।
3) प्रिंसिपल व अध्यापकों को भी संस्था के बारे में अवगत कराना।



राजकीय बालिका उच्च माध्यमिक विद्यालय
अरनिया, उदयपुर

- Activity Undertaken :-

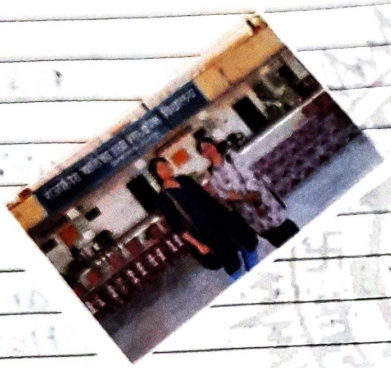
~~दिन~~ दिन था। आज भी मैंने व मेरी सहपाठी सुश्री सुरभि वर्मा ने साथ मे ही कार्य किया। आज हमने कुल 6 स्कूल विज़िट किये। वह स्कूल लिस्ट इस प्रकार हैं।

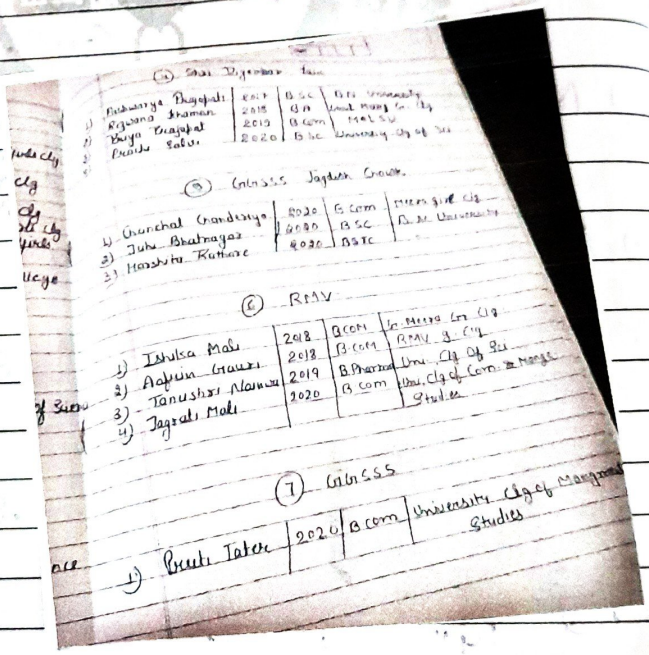
- List of School Visit in Udaipur

[II nd day]

S.no	Name of Principal	Name of School	Address
1)	Dr. Arti Sharma	Mahila Mandal School	Mukhrji Chowk.
2)	Mrs. Kalakaran Puri	Shri Digambar Jain Gr.S. School	Kanji Ka Hata.
3)	Mr. Vikas Singhe	R.M.V. S.S. School	Amal Ka Kanta
4)	Nazima Tabassum	GrGr.S.S. School	Amba Mata
5)	Mrs. Ruchi Parikh	Gr.Gr.S.S. School	Jagdish Chowk
6)	Lokesh Bharti	Gr.Gr.S.S. School	Sisarma

II nd दिन मे हमने 6 स्कूल उदयपुर सिटी के विज़िट किये।





(4) Shri Digambar Jain

1) Aishwarya Prajapati	2017	B.Sc	B.N. University
2) Rajwana Shaman	2018	B.A	Lead Mang Co. Clg
3) Priya Prajapat	2019	B.Com	Mal SU
4) Prachi Salvi	2020	B.Sc	University Clg of Sci

(5) GGSSS Jagdish Chowk.

1) Gunchal Gandariya	2020	B.Com	Meera Girl Clg
2) Juhi Bhatnagar	2020	B.Sc	B.N. University
3) Harshita Rathore	2020	B.Sc	

(6) RMV

1) Ishika Mali	2018	B.Com	G. Meera Co. Clg
2) Aafrin Gauri	2018	B.Com	RMV G. Clg
3) Tanushri Namwa	2019	B.Pharma	Univ. Clg of Sci
4) Jagrati Mali	2020	B.Com	Univ. Clg of Com & Mangt Studies

(7) GGSSS

1) Preeti Tater	2020	B.Com	University Clg of Mangment Studies

1) सबसे पहले आज के दिन हम 'महिला मंडल' स्कूल गये। फिर 'दिगम्बर जैन स्कूल', फिर 'RMV' स्कूल फिर अम्बामाता स्कूल, जगदीश चौक स्कूल व आखिरी सीसारमा का स्कूल रहा।

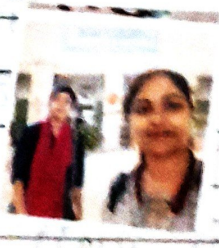
2) श्री दिगम्बर जैन बालिका उच्च माध्यमिक विद्यालय जाने का भी अवसर हुआ। यहां पहुँचने के बाद हम यहां की प्रिंसिपल 'Mrs. Kalaivanan Puvi' जी मेम से मिले। हमने उन्हे नमस्ते कह कर अपनी बात रखी।

3) हमने उन्हे अपनी संस्था का रिक्वेस्ट लेटर व एप्लीकेशन फॉर्म देते हुए कहा कि हम 'नानूभाई एज्युकेशनल फाउंडेशन चेरीटेबल एंड वेल्फेयर ट्रस्ट' से आये हैं।

4) फिर हमने रिक्वेस्ट लेटर को देते हुए कहा कि मेम हमारी संस्था बालिकाओं की शिक्षा पर कार्य करती है और पहले भी हमने आपके यहां से छात्राओं को छात्रवृत्ति के लिए सलेक्ट किया है और उन छात्राओं को अभी छात्रवृत्ति समय पर मिल रही है और वह 'स्नातक' को पूरा कर रही हैं।

5) अब सब कुछ छात्रवृत्ति के बारे मे बताने के बाद उनसे यही बात कही की आप हमे ज्यादा से ज्यादा जरुरतमंद बच्चियों का फॉर्म भेजे। और अगर वह सलेक्शन प्रोसेस पूर कर लेती है तो हमे उन्हे छात्रवृत्ति के लिए उनका चयन कर सकें।

सभी विद्यालयों मे इसी प्रकार से सभी से कार्य हुआ था। कुछ विद्यालयों मे छात्राओं की कक्षा जाकर उनसे बात करने का भी मौका मिल हमने उन्हे यह भी बताया कि आप फार्म भरके समय पर हमें भेज देवें। आप email, whatsa या कुरियर के माध्यम से भी भेज सकते हैं।



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- **Interpretation :-** आज स्कूल विजिट का IInd दिन था। सभी स्कूलो मे छात्रवृत्ति की जानकारी आज भी दी। उन्हे फॉर्म भरने के लिए कहा। तथा जिससे अधिक संख्या मे एप्लीकेशन संस्था के पास आएं। और वह छात्रवृत्ति के बारे मे अवगत हो सके, इसलिए यह स्कूल विजिट की। प्रिंसिपल व अध्यापको को छात्रवृत्ति के बारे मे बताया। NEFCWT के प्रोजेक्ट के बारे मे बताया।

- **Self Evaluation :-** संस्था के इस प्रोजेक्ट के बारे मे ज्यादा से ज्यादा स्कूलों को पता चलें। प्रिंसिपल व अध्यापको व स्कूल के बच्चो को रूबरू होकर छात्रवृत्ति की जानकारी दी।

- **Learning / outcomes :-** NEFCWT किस प्रकार से स्कूल विजिट करता है तथा प्रोफेशनली प्रिंसिपल से कैसे बात-चीत की जाती है वह सिखने को मिला।

- **Future Plan :-** जो स्कूल विजिट दो दिन की उसकी सम्पूर्ण जानकारी व रिपोर्ट संस्था मे फिल्ड सुपरवाईजर को बताना।

Report - 11
[NEFCWT]

After school
Visit
giving Infarmation
Supervisor

Report - II

- DATE :- 4 April 2022
- TIMING :- 10:00 [AM] to 6:00 [PM]
- NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD-WORK SUPERVISOR :- Dr. Vikram Mali [Senior Project Manager]

NAME OF FACULTY SUPERVISOR :- Dr. Parul Tyagi

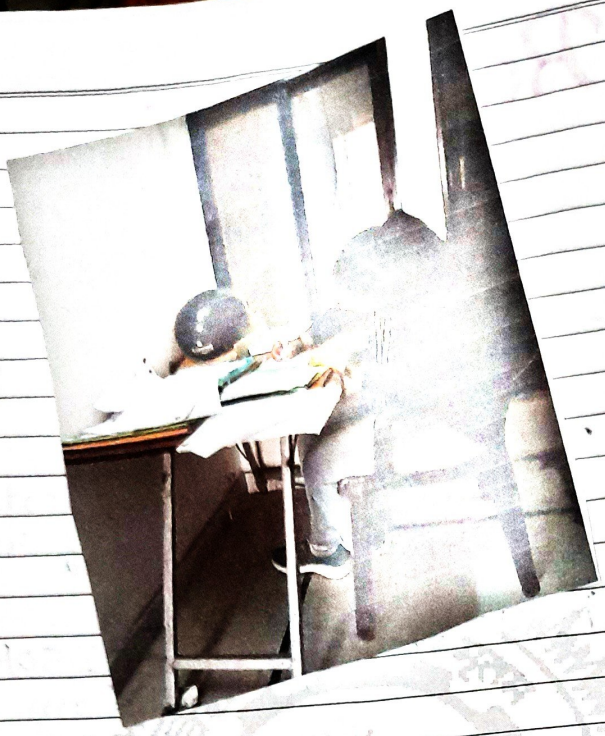
- Goal :- जो स्कूल विज़िट की उसकी जानकारी फिल्ड सुपरवाईजर को देना।

- Objective :-

(1) जिस प्रकार स्कूल विज़िट की उसकी जानकारी

(2) स्कूल विज़िट का Experience साझा करना।

(3) स्कूल विज़िट के दौरान [illegible] सभी कार्यों से अवगत कराना।



Activity

• सम्पूर्ण

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- Activity Undertaker :- स्कूल विज़िट की उसकी सम्पूर्ण जानकारी फिल्ड सुपरवाईजर को देना।

1) उन्हे बताया कि हमने 1st दिन 8 दिन स्कूल विज़िट पो सिटी के थोडे आउट-साउड वाले एरिया के थे। जिसे हमने 2-व्हीलर पर जाकर पूरा किया। हमने प्रिंसिपल से बात-चीत की तथा मौका मिलने पर हमने विद्यालय के बच्चों के साथ भी बात-चीत की।

2) हमने फिर उन्हे 2nd दिन का भी बताया। कि 2nd दिन हमने 6 स्कूल विज़िट जो उदयपुर सिटी मार्केट एरिया के स्कूल थे। यहां भी हमने छात्रवृत्ति के बारे मे विद्यालय मे सम्पूर्ण जानकारी दी।

3) दोनो दिन मे कार्य करके जो सिखने को मिला वो भी सर के साथ साझा किया। तथा फिर जो स्कूल विज़िट की उसकी सिग्नेचर लिस्ट दी, जिसे देखकर उन्हे पता चल गया कि हमने कितने स्कूलो को विज़िट किया है।

- Interpretation :-

1st और 2nd दिन स्कूल विज़िट का काफी अच्छा रहा। प्रिंसिपल मिलने का मौका मिला। NGO मे कैसे फील्ड मे कार्य किया जाता है वह सिखने को मिला। 14 स्कूल विज़िट करके, बच्चो से मिलकर, छात्रवृत्ति के लिए प्रेरित करके बहुत कुछ नया सिखने को मिला। प्रोफेशनली कार्य कैसे होता है उस बारे मे बहुत सिखने को मिला।

- **Self Evaluation :-** जो सिग्नेचर बिस्ट थी, उससे यह पता चल गया कि हमने कितने स्कूल कब विज़िट किये।

- **Learning / Outcomes :-** संस्था की फील्ड मे काम करने के बाद दोनो दिन को बताकर यह सिख्ने मिला कि कैसे कार्य करने के बाद उसकी रिपोर्ट दी जाती है।

- **Future Plan :-** आगे हम जो भिन बालिकाओं को छात्रवृत्ति मिल रही है पर वह drop-out हो गई है उनकी जानकारी प्राप्त करेंगे।

Report -12

[NEFCWT]

Drop-out

Girls

Report - 12

DATE :- 45 March 2022

TIMING :- 10:30 [AM] to 6:30 [PM]

NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]

NAME OF FIELD-WORK SUPERVISOR :-
Dr. Vikram Mali
[Senior Project Manager]

NAME OF FACULTY SUPERVISOR :-
Dr. Parul Tyagi

- Goal :- जो छात्राएं Drop-out हो गई है उनकी फाइल अलग कर उसकी excel entry करना।

- Objective :-

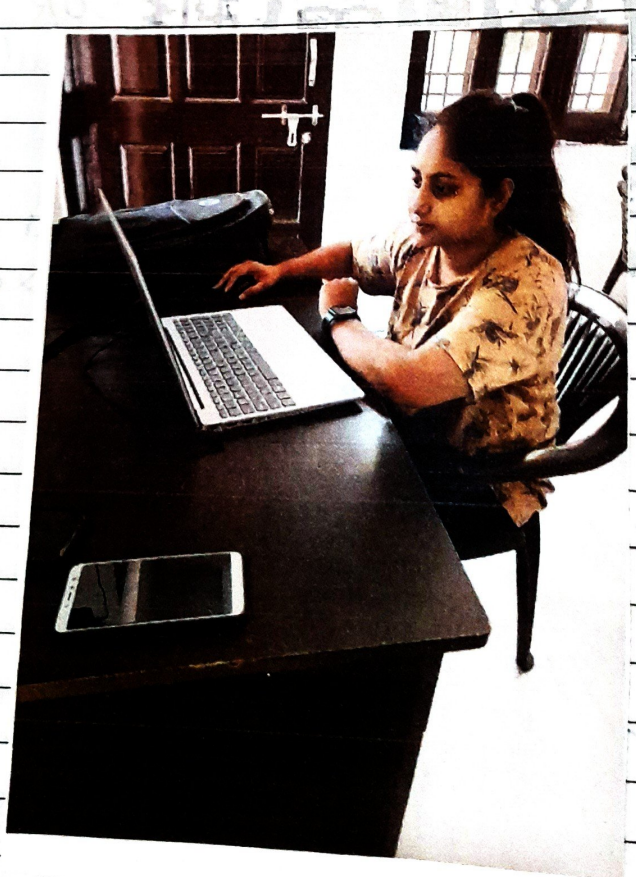
1) Drop-out छात्राओं को अलग करना।
2) उनकी फाइल को अलग निकाल देना।
3) उनकी छात्रवृत्ति कब तक गई व अब नही भेजनी है वो कार्य करना।

NANUBHAI EDUCATION FOUNDATION

INSPIRE

Nanubhai Education Foundation (NEF) works to
re positive impact on financially vulnerable rural
dents in a scaleable and sustainable way

भाई एजुकेशन फाउन्डेशन (एन ई एफ) आर्थिक रूप से कमजोर
ण/आदिवासी छात्राओं का सकारात्मक प्रभाव बनाने के लिए
ल और सुस्थिर तरीके से काम कर रहा है।



- Activity undertaken :- Drop-out छात्राओं को अलग करना।

1) जिन छात्राओं को छात्रवृत्ति मिल रही है परन्तु उन्होंने बीच में ही यदि पढ़ाई छोड़ दी है तो वह drop-out में आएगी। फिर तो उनकी फाइल का एनालिसीस कर उनकी फाइल को सभी की फाइल से अलग करना।

2) फिर हमने उन्हें फोलो-अप किया और जो drop-out थी उनकी छात्रवृत्ति वहीं बीच में ही रोक दी और उनकी फाइल को drop-out की फाइल में मिक्स कर दिया।

3) उसके बाद सभी drop-out छात्राओं का Excel में डाटा बनाया। और उसमें यह मेनडाटा किया कि उन्हें संस्था द्वारा कब से लेकर कब तक छात्रवृत्ति दी गई। और अब उन्हें आगे छात्रवृत्ति नहीं दी जाएगी।

- Interpretation :- Drop-out छात्राओं का डाटा चढ़ जाने से Record में रहता है कि अब उस साल की कितनी छात्राओं को छात्रवृत्ति भेजनी है। और उनको फोलो-अप करके उनकी drop-out की जानकारी मिलने से उनकी छात्रवृत्ति वहीं रोक दी जाती है। जिससे किसी और के साथ अन्याय न और जो अध्ययन करना चाहती है उन्हें ही छात्रवृत्ति प्राप्त हो। क्योंकि NEFCWT पढ़ने के लिए छात्रवृत्ति प्रदान करता है।

NANUBHAI EDUCATION FOUNDATION

- **Self Evaluation :-** Drop-out छात्राओं का पता चलना बहुत जरूरी है, क्योंकि उनके नहीं बताने पर उन्हें ऐसे ही पैसे मिलते रहते हैं तथा इन पैसो से किसी जरूरमंद की पढाई हो सकती है जो पढना चाहती हैं।

- **Learning / Outcomes :-** Drop-out की छात्रवृत्ति को रोकने से किसी आर्थिक रूप से कमजोर वर्ग की छात्रा को पढने में मदद मिल सकती है।

- **Future Plan :-** आगे हम डूंगरपुर मे छात्रा की केस-स्टडी के लिए जाएंगे।

Report-13
[NEFCWT]
Case-study in Dungarpur

Report - 13

DATE :- 11 March 2022
TIME :- 6:00 [AM] to 7:00 [PM]

NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]

NAME OF FIELD- WORK SUPEVISOR :-
Dr. Vikram Mali
[Senior Project Manager]

NAME OF FACULTY SUPERVISOR :-
Dr. Parul Tyagi

Goal :- झुंगरपुर मे छात्रा की केस - स्टडी करना।
[दिव्या भारती की]

Objective :-

छात्रा को छात्रवृत्ति मिल रही है वो कब और कैसे मिली उसकी जानकारी होना।

केस - स्टडी के माध्यम से उसका संस्था के प्रति दृष्टांत

छात्रवृत्ति से वो अब क्या कर रही है उसके अनुभव को स्टडी करना।

Divya Bharti

- Activity Undertaken :- आप हम NEFCWT की राजस्थान की टीम के साथ डूंगरपुर मे केस - स्टडी करने गये। जिसमे हमने आप डूंगरपुर मे 7 केस - स्टडी की। किसी 1 की केस स्टडी को मैं यहां विस्तारपूर्वक बताऊंगी क्योंकि सभी की केस - स्टडी इसी प्रकार की जाती है।

1) सबसे पहले जिन 7 लड़कियों की केस स्टडी की वह सभी डूंगरपुर के अलग - अलग गांवो से थीं, उन्हे NEFCWT छात्रवृत्ति प्रदान कर रहा है।

2) एक छात्रा उनमे से है दिव्या भारती' है वह और उसकी माँ डूंगरपुर के छोटे से गांव मे रहती है। उनका घर कच्चा है, उसके घर पर पक्की छत भी नही है दिव्या भारती की माता जी दूर-दूर जाकर फल बेचने का कार्य करती है उसी से उनका घर चलता है।

3) हमने फिर 'दिव्या भारती' से उसका नाम पुछ कर केस - स्टडी की जर्नी शुरू की। इस समय हमने उसके 'विडियो' व 'आडियो' रिकार्डिंग की, जिससे आगे उसकी केस - स्टडी बना सकें।

4) केस स्टडी के दौरान हमने 'दिव्या भारती' से कुछ प्रश्न किये थें। जो इस केस-स्टडी का महत्वपूर्ण हिस्सा थीं।

- प्रश्न :-

1) आपका नाम
2) आपके परिवार का नाम व कितने सदस्य
3) आपने स्कूली शिक्षा कहाँ से प्राप्त की?
4) आपका 11वी व 12वीं का सब्जेक्ट व प्रतिशत?
5) आप कौनसे कॉलेज से शिक्षा प्राप्त कर रहे है?
6) आप कौनसा गेप्युएशन मे कौनसा कोर्स कर रहे है?
7) आपको छात्रवृति मिल रही है उससे क्या मदद मिल रही है?
8) आपका अनुभव व आपकी माता जी के विचार?
9) U.S.A मे जो दान-दातार बैठे है जो आपको व

good

आप वैसी बहुत वैसी छात्राओं को जो छात्रवृत्ति दे रहे हैं, उनसे क्या कहना चाहेंगी?

इन सभी के प्रश्नों का उत्तर देते हुए उन्होंने हमारे साथ उनका एक्सपीरियन्स साझा किया। वो छात्रवृत्ति पाकर इतनी खुश हुई है, इस छात्रवृत्ति से उनको बहुत मदद मिली है, अपनी पढाई को आगे करने पूरी करने के लिए। उनकी माता जी भी बहुत खुश थीं। उनका कहना था यदि छात्रवृत्ति नहीं दी जाती तो शायद उनकी बेटी आगे अध्ययन नहीं कर पाती है।

उन्हें इस छात्रवृत्ति के बारे में उनके विद्यालय से पता चला उन्होंने यह भी बताया। वह NEFCW को धन्यवाद देना चाहती थी कि उनकी वैसी और भी छात्राओं को यह संस्था छात्रवृत्ति दें। और उनको अध्ययन करवाकर उनका भविष्य उज्ज्वल करें।

- Interpretation :— पढ़ लिख कर वह अपने व अपने परिवार का सपना पूरा कर सकें। दिव्या भारती "RS" बनना चाहती है, तथा ऐसी सभी छात्राओं की केस-स्टडी बनाई, जिसमें सभी ने संस्था को धन्यवाद अर्पित किया। बहुत सी छात्राएं है जो 'RS' 'IS', टिचर, व अन्य क्षेत्र में जाना चाहती है, और अपने सपनों को पूरा करना चाहती है उनके सपनों को पूरा करने में NEFCW अपना अमूल्य योगदान दे रहा है।

केस स्टडी करते समय ही हमने उनकी विडियो व आडियो बनाई। कुछ फोटो खिंचवाए। तथा उन्हें अलविदा ले कर हम ऐसे करते-2 सभी की केस-स्टडी बनाने में सफल हुए। और उस दिन हमने 7 केस-स्टडी की।

- **Self Evaluation :-** हमें केस-स्टडी करने से पता चला कि उनका और उनके परिवार का संस्था के प्रति क्या विचार है? वह और कैसे इस छात्रवृत्ति से उनको मदद मिल रही है?

- **Learning / Outcomes :-** यदि किसी कमजोर वर्ग या जिसकी आर्थिक स्थिति सही नही है और वह आगे किसी संस्था द्वारा अध्ययन करती है तो उसकी भविष्य और अच्छा हो जाता है। और वो अपने सपने पूरे कर पाती है।

- **Future Plan :-** आगे हम राजसमंद मे केस-स्टडी के लिए जाएंगे।

Report - 14
[NEFCWT]
Case - Study
in
Rajsamand

Report - 14

DATE :- 12 AMarch 2022

TIMING :- 8:00 [AM] to 4:00 [PM]

NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]

NAME OF FIELD-WORK SUPEVISOR :-
Dr. Vikram Mali
[Senior Project Manger]

NAME OF FACULTY SUPERVISOR :-
Dr. Parul Tyagi

- Goal :- राजसमंद में जिन छात्राओं को छात्रवृत्ति दी जा रही है उनकी केस स्टडी बनाना।
[निरमा कालबेलिया]

- Objective :-
- छात्रा को छात्रवृत्ति पाकर कैसा महसूस हो रहा है?
- इस छात्रवृत्ति से उसे कितनी मदद मिल रही है?
- उसके व उसके परिवार का क्या अनुभव है?

NIRMA KALBELIYA

• Activity Undertaker :- आज हम राजसमंद मे केस-स्टडी करेंगे। जिन्हे नानूभाई एज्यूकेशनल फाउंडेशन चेरीटेबल ट्रस्ट वेल्फेयर ट्रस्ट छात्रवृत्ति प्रदान कर रहा है उनकी केस - स्टडी बनाएंगे।

1) आज हमने 6 लड़कियो की केस-स्टडी कि। जो अलग-2 गांवो मे रहती है जिनमें से कुछ तो अभी राजसमंद मे बहार पढ़ाई कर रही हैं।

2) एक छात्रा उन में से 'निरमा कालबेलिया' है, जिनकी केस - स्टडी मे आपको बताऊंगी। 'निरमा कालबेलिया' राजसमंद के एक छोटे से गाँव मे रहती है। उसका घर कच्चा व उसके पास 1 ही छोटा सा कमरा है जिनमे वो और उसकी माँ रहती है, उनके घर मे पंखा, गैस स्टोव भी नही है उनकी माता जी लकडिया बेचती है तथा 'निरमा और उनका घर चलाती हैं।

3) निरमा उनके घर की व उनके गाँव की पहली लड़की है जो graduation कर रही है, वह पढने मे बहुत होशियार है, अभी वो B.A, B.Ed कर रही है और उसका अध्यापक बनने का सपना है उसको पूरा करने मे जुटी हुई हैं।

4) अब यहां हमने हमारी केस स्टडी शुरू कर दी। हमने 'निरमा कालबेलिया' व उनकी माता जी से कुछ प्रश्न किये? जो इस प्रकार हैं।

प्रश्न:-

1) आपका नाम
2) परिवार का नाम व कितने सदस्य
3) आपने स्कूली शिक्षा कहाँ से प्राप्त की?
4) आपके 11वीं व 12वीं मे विषय व प्रतिशत
5) आप कौनसे कॉलेज से शिक्षा प्राप्त कर रही हैं?
6) आप graduation मे कौनसा कोर्स कर रही हैं?
7) आपको जो छात्रवृत्ति मिल रही है, उससे क्या मदद मिल रही है?

8) आपका अनुभव व आपकी माता जी के विचार
9.) U.S.A मे जो दान- दातार है जो आपको व आप जैसी बहुत-सी छात्राओं को छात्रवृत्ति दे रहे है, उनसे क्या कहना चाहोगें?

5.) इन सभी प्रश्नों का उत्तर देते हुए उन्होने अपना अनुभव व अपनी मन की बात साझा कीं। उन्होने बताया कि यदि छात्रवृत्ति नही मिली होती तो वह आगे नही पढ पाती। इस छात्रवृति को पाकर उनके व उनके परिवार मे अलग ही खुशी दिखती हैं।

6) 'निरमा कालबेलिया' ने यह संदेश भी दिया कि NEFCWT जो निः स्वार्थ भाव से छात्रवृत्ति का कार्य कर रहा है वह ऐसे ही करता रहें, और उन सभी गरीब बच्चियों की मदद करें जो आगे अध्ययन तो करना चाहती है परन्तु अपनी आर्थिक स्थिति कमजोर होने की वजह से नही कर पा रही हैं।

7.) आखिरी मे उन्होने संस्था को धन्यवाद कहा और उनकी माता जी के तो धन्यवाद कहते-2 खुशी से आँखे नम हो गई। जो उनकी खुशी को बयाँ कर रही थीं। 'निरमा कालबेलिया' बहुत ही जज़्बा रखने वाली छात्रा हैं।

• Interpretation :- जो छात्राएं अध्ययन कर रही है, तथा जिन्हे NEFCWT छात्रवृत्ति प्रदान कर रही है, उनका अनुभव सभी को बताना तथा जो छात्राएँ 'RAS', IAS' व अध्यापक बनना चाहती है NEFCWT उन्हे छात्रवृत्ति देकर उनका सपना पूरा करने मे मदद करता हैं। जिससे वह अपने भविष्य को सुनहरा बना सकें।

- **Self Evaluation :-** हमे केस-स्टडी करके पता चला कि उनका संस्था के प्रति क्या विचार है? और कैसे इस छात्रवृत्ति से उनको अध्ययन करने मे मदद मिल रही है?

- **Learning / Outcomes :-** जब कोई संस्था किसी अध्ययन करने के लिए मदद करती है और बालिकाओं की शिक्षा पर ज़ोर देती है तो उससे बहुत कुछ सिखने को मिलती है इस केस-स्टडी से बहुत सिखने को मिला।

- **Future Plan :-** आगे हम जो केस स्टडी की उसकी विडियो एडीटिंग का कार्य करेंगे।

Report -15

[NEFCWT]

Case - Study

Vedio

Editing

Report - 15

TIME :- 25 April 2022

DATE :- 10:00 [AM] to 6:00 [PM]

NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]

NAME OF FIELD WORK SUPERVISOR :-
Dr. Vikram Mali
[Senior Project Manager]

NAME OF FACULTY SUPERVISOR :-
Dr. Parul Tyagi

Goal :- जो डूंगरपुर व राजसमंद मे केस - स्टडी की उसकी विडियो एडीटींग कर उसकी केस - स्टडी बनाना।

Objective :-
केस स्टडी को रिकार्ड मे रखने के लिए।
केस-स्टडी को सभी को दिखाकर प्रेरित करने के लिए।
छात्राओं को केस-स्टडी मे जो बताया उसे से दूसरो को प्रेरित करना।

- Activity Undertaken :- हमने जो इंगरपुर व राजसमंद मे केस स्टडी उसकी विडियो एडीटिंग करेंगे।

1) पिन बालिकाओं की केस-स्टडी की उनकी आप विडियो एडीटिंग करनी हैं। केस-स्टडी के समय जो भी फोटोस व विडियो या ऑडियो हमने बनाई उसे सेट करके एक अच्छी विडियो बनाना।

2) उस विडियो को इतना परफेक्ट बनाना कि जब कोई भी इस विडियो को देखे तो वह एक मेसेजेबल विडियो बनें।

3) विडियो एडीटिंग एक विडियो ऐप मे करी जाती है जिससे एक अच्छी विडियो बन सकें। विडियो एडीटिंग मैंने और मेरे फील्ड सुपरवाईजर द्वारा करी गई। जिसमे हमने पहले पोडे गॉव को दर्शाया, फिर उनके घर और उनके मेसेज को दिखाया।

4) विडियो एडीटिंग करते समय उसमे NGO का नाम जगह, तारीख सब बताई तथा 15 मिनट की एक विडियो बनाकर तैयार की। इससे मुझे किसी कि केस-स्टडी कैसे विडियो मे बनाई जाती है वह सिखा।

Interpretation :- विडियो एडिटिंग को Laptop मे करने का अवसर मिला। पिन छात्राओं की केस-स्टडी की थी। उनकी विडियो एडीटिंग करी। तथा विडियो एडीटिंग करके यह एक मेसेजेबल विडियो बन जाती है तथा उससे यह संस्था के Record मे Save हो जाती है और जब Annual Function होता है तब इस विडियो को दिखाकर अपने काम को दर्शाया जा सकता है।

- **Self Evaluation :-** जो केस-स्टडी हमने पूरी की उसको फिल्टर करके एक परफेक्ट विडियो बनाई जिससे Record मे डाटा सेव हो जाएं।

- **Learning / Outcomes :-** संस्था जब केस-स्टडी पर काम करती है तो उसे Process करने के लिए विडियो एडीटिंग का कार्य करती है तो के इससे केस-स्टडी की विडियो बनाना सिखा।

- **Future Plan :-** जो एप्लीकेशन फॉर्म स्कूल मे दिये थें अब वो फॉर्म भर कर स्कूल ने संस्था [NEFCWT] मे भेजे है उन्हे एक-जैसा करके फिल्टर करना।

Report - 16
[NEFCWT]

Filter - Application Form

Report - 16

DATE :- 26 March 2022

TIME :- 10:30 [AM] to 5:30 [PM]

NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]

NAME OF FACULTY SUPERVISOR :-
Dr. Parul Tyagi

NAME OF FIELD WORK SUPERVISOR :-
Dr. Vikram Mali
[Senior Project Manager]

Goal :- स्कूल विजिट के दौरान जो फार्म स्कूल मे दिये थें अब स्कूल ने वो एप्लीकेशन संख्या मे भेज दी, अब उन्हे फिल्टर कर अलग-२ सेट तैयार करना।

Objective :-
आई हुई एप्लीकेशन फॉर्म को डिस्ट्रिक्ट वाइज़ अलग करना।

जो एप्लीकेशन फॉर्म आए है उन्हे शहर के अनुसार अलग करना।

उ) उनमे डाक्यूमेन्ट सही करके एक लिस्ट तैयार करना। और उसकी Excel मे Entry करी।

- **Activity Undertaken :-** स्कूल विज़िट के दौरान जो एप्लीकेशन फॉर्म दिये गये, उन्हे फिल्टर करके एक लिस्ट तैयार करना।

ए) "यह एप्लीकेशन फॉर्म उदयपुर, डूंगरपुर, राजसमंद, जोधपुर व वाराणसी से आये थे।"

ब) सभी एप्लीकेशन फॉर्म को पहले डिस्ट्रीक्ट के हिसाब से अलग किया। फिर उसे शहर के हिसाब से फिर जिस शहर के है उसके स्कूल के हिसाब से अलग किया।

उ) अब हमने स्कूलों के अनुसार उन्हे अलग किया सभी स्कूल की अलग-2 लिस्ट बनाई, सभी फॉर्म को ट्रेकर नं. दिया। और उनके उस फॉर्म मे जो डाक्युमेंट थें उन्हे सिस्टमेटिक जमाया।

ए) किसी स्कूल से 10 फॉर्म, कही से 50, कही से 25 अलग-2 स्कूल से अलग-2 गिनती मे फार्म आएं, हमने 350-400 एप्लीकेशन फॉर्म पर कार्य किया।

ब) अब उसको ट्रेकर नं. देने के बाद उसकी Excel मे Entry करी, जिसमे उस० छात्रा का नाम, उसके पिता का नाम, उनकी आय स्कूल का नाम व जिला व ट्रेकर नं. डाला। जिसे एक रिकार्ड बना रहें। और जब सिलेक्शन का प्रोसेस हो तब ट्रेकर नं. से उस छात्रा को ट्रेक कर सके।

- Interpretation :- सभी फॉर्म को अलग-अलग करने से उनकी एंट्री मे आसानी होती है और Record मेनटेन रहता है। तथा, जिससे छात्राओं को उनके स्कूल व जिलो के आधार देखा जा सकता है। और एक Record रहने से पता रहता है हमने किसने मे कार्य किया, कितने स्कूल से फार्म हमारे पास आये। और अब आगे के प्रोसेस मे आसानी रहती है।

- Self evaluation :- इस मुल्यांकन यह हुआ कि हमारी स्कूल विजिट कितनी सफल रही।

- Learning / Outcomes :- जब एप्लीकेशन फॉर्म आते है तो उसे कैसे सेट करते है तथा उसकी फारमेटिंग के आधार पर कैसे Excel मे Entry करते है।

Future Plan :- आगे हम जिन्हे छात्रवृत्ति भेजनी है उसका कार्य कैसे होता है वह काम करेंगे।

Report-17
[NEFCWT]

Girls Bank details Entry in Excel

[DATA- Entry]

Report - 17

- Date :- 02 April 2022
- TIMING :- 10:30 [AM] to 6:30 [PM]
- NAME OF AGENCY :- Nanubhai Educational Foundation Charitable & Welfare Trust [NEFCWT]
- NAME OF FIELD WORK SUPERVISOR :-
  Dr. Vikram Mali
  [Senior Project Manager]
- NAME OF FACULTY SUPERVISOR :-
  Dr. Parul Tyagi

- **Goal :-** पिन छात्राओं का छात्रवृत्ति के लिए सलेक्शन होता है तो NEFCWT कैसे उन तक छात्रवृत्ति पहुँचाने का कार्य करता है वह सिखना।

- **Objective :-**
  1) छात्रवृत्ति भेजने का प्रोसेस समझना।
  2) उनकी Bank details पर कार्य करना।
  3) NEFCWT में छात्रवृत्ति भेजने का कार्य स्वयं करन

- Activity Undertaken :- इन छात्राओं को छात्रवृत्ति भेजनी है उनकी सही है या नही वह देखना।

1) जिन छात्राओं को छात्रवृत्ति भेजनी है उनकी फाइल को चेक करना कि पहले उन्हे किस समय पर कितनी छात्रवृत्ति दी जा चुकी है। अब उन्हे कितना अमाउंड का चेक भेजना है।

2) इसमे उनसे फोलो- अप करके उनके स्टेशनरी के बिल उनकी कॉलिज की रसीद मंगवायी जाती है फिर उन्हे फाइल मे अटेच किया जाता है। तथा फिर उनकी फाइल से Bank detail निकाली जाती है।

3) Bank detail कही चेंज तो नही की उसके लिए उसको फोलो - अप लिया जाता है जिससे उसे सही समय पर उसके पास चेक पहुँच जाए।

4) चेक के माध्यम से उन्हे छात्रवृत्ति दी जाती है। फिर उनका फोलो - अप लेने के Excel मे उनकी Entry की जाती है। फिर मैंने जो छः Batch की छात्राएं है उस के अनुसार उनकी Excel File तैयार की।

5) जिन छात्राओं के Bank बदल गया है उनसे उनके नए बैंक की जानकारी और उनका Bank का IFSC code लिया जिससे हम उन्हे सही चेक वितरीत कर पाएं।

6) Data Entry करने के बाद छात्राओं के Bank मे चेक का कार्य सुपरवाईजर द्वारा किया जाएगा।

- **Interpretation :-** मैंने Bank details को सही करके Excel मे Entry की जिससे डाटा सेव रहें। और बाद मे बार-2 उनकी फाइल ना देखनी पड़ें। ऐसा करने से जिसकी छात्रवृत्ति है वो उसे समय पर मिल जाएगी। और वह कॉलेज की फीस समय पर दे पाएगी। और यदि उसके Detail मे कोई त्रुटि होती है तो उसे सही करके भेजने की जिम्मेदारी छात्रा की स्वयं की होती है।

- **Self Evaluation :-** यदि बैंक की जानकारी सही होगी तो छात्रा को आसानी से समय पर छात्रवृत्ति मिल जाएगी।

- **Learning / Outcomes :-** हमने सिखा कि कैसे नानूभाई एज्युकेशनल फाउंडेशनल चेरिटेबल ट्रस्ट वेलफेयर ट्रस्ट निःस्वार्थ भाव छात्रवृत्ति का कार्य कारवर रही है। और किस प्रकार से छात्रवृत्ति की प्रक्रिया होती है और किसी छात्रा को छात्रवृत्ति भेजी जाती है। जिससे उसकी अध्ययन की प्रक्रिया अच्छे से चलती रहें।

KUMARI AHIR
Course Coordinator
Center of Social Work
MLSU, Udaipur

Dr. Vikram Mall
Senior Project Manager
Rajasthan

कोविड-19 का असंगठित क्षेत्र पर प्रभाव दक्षिण राजस्थान के उदयपुर जिले के गावली ब्लॉक के संदर्भ मे

मोहनलाल सुखाडिया विश्वविद्यालय, उदयपुर में समाजशास्त्र विभाग के समाज कार्य स्नातकोतर पाठ्यक्रम

के अंतर्गत प्रश्न पत्र M4SW410 की पूर्ति हेतु प्रस्तुत

लघुशोध प्रबंध

सत्र : 2021–2022

शोध पर्यवेक्षक
डॉ राजकुमारी अहीर
कोर्स - कोर्डिनेटर
समाज कार्य स्नातकोतर पाठ्यक्रम

शोधकर्ता
ललित सिंह राव
स्नातकोतर फाइनल
समाज कार्य स्नातकोतर पाठ्यक्रम

समाज कार्य स्नातकोतर पाठ्यक्रम

समाजशास्त्र विभाग

मोहनलाल सुखाडिया विश्वविद्यालय , उदयपुर, राजस्थान - 313001

समाज कार्य स्नातकोतर पाठ्यक्रम

समाजशास्त्र विभाग

मोहनलाल सुखाडिया विश्वविद्यालय, उदयपुर, राजस्थान

घोषणा - पत्र

मे यह घोषणा करता हूं, की यह लघुशोध स्वयम मेरे द्वारा किया गया हैं, तथा इसको मे किसी भी डिग्री, डिप्लोमा या फेलोशिप मे प्रस्तुत नहीं करूँगा|

Lalit Singh

ललित सिंह राव

स्नातकोतर फाइनल

समाज कार्य स्नातकोतर पाठ्यक्रम

समाज कार्य स्नातकोतर पाठ्यक्रम

समाजशास्त्र विभाग

मोहनलाल सुखाडिया विश्वविद्यालय, उदयपुर, राजस्थान

प्रमाण - पत्र

यह प्रमाणित किया जाता हैं की ललित सिंह राव ने अपना लघुशोध प्रबंध "कोविड-19 का असंगठित क्षेत्र पर प्रभाव दक्षिण राजस्थान के उदयपुर जिले के मावली ब्लॉक के संदर्भ मे" मेरे परामर्श व निर्देशन मे सम्पन्न किया हैं|

इस मौलिक कार्य को मे समाज कार्य स्नातकोतर पाठ्यक्रम स्नातकोतर फाइनल हेतु परिक्षार्थ करने की अनुमति प्रदान करती हु|

दिनांक - 03/01/2023

शोध पर्यवेक्षक

3/1/23

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कोर्स - कोर्डिनेटर

समाज कार्य स्नातकोतर पाठ्यक्रम

समाज कार्य स्नातकोतर पाठ्यक्रम

समाजशास्त्र विभाग

मोहनलाल सुखाडिया विश्वविद्यालय, उदयपुर, राजस्थान

प्राक्कथन

प्रस्तुत लघुशोध "कोविड-19 का असंगठित क्षेत्र पर प्रभाव दक्षिण राजस्थान के उदयपुर जिले के मावली ब्लॉक" से सम्बंधित हैं , इस विषय पर शोध लिखने का मुख्य कारण यह रहा की असंगठित क्षेत्र पर कोविड -19 का प्रभाव किस तरह पड़ा, इसके तहत असंगठित क्षेत्र से जुड़े कार्मिको एवं व्यवसायी वर्ग पर कोविड 19 के दौरान उन हुवे प्रभाव के बारे जानकारी प्राप्त की गई तथा उस पर विश्लेषण किया गया तथा सरकार तथा गैर सरकारी संगठनो के द्वारा असंगठित क्षेत्र मे की गई सहायता के बारे मे जानकारी प्राप्त की गई|

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आभार

यह लघु शोध "कोविड-19 का असंगठित क्षेत्र पर प्रभाव दक्षिण राजस्थान के उदयपुर जिले के मावली ब्लॉक" से सम्बंधित हैं, इस लघु शोध के तहत असंगठित क्षेत्र से जुड़े व्यवसाय तथा उनमे कार्य करने वाले कार्मिको पर कोविड के दौरान हुवे नुकसान के बारे मे तथ्य प्राप्त किये गए, तथा सरकार एवं गैर सरकारी संगठनों के द्वारा कोविड मे असंगठित क्षेत्र मे की गई मदद के बारे मे जानकारी प्राप्त की गई , उक्त विषय मे शोध पूर्ण करवाने हेतु लघुशोध पर्यवेक्षक एवं कोर्स - कोर्डिनेटर डॉ राजकुमारी अहीर मेम का मार्गदर्शन व सहयोग उपयोगी सिद्ध हुवा, लघुशोध पर्यवेक्षक एवं कोर्स - कोर्डिनेटर डॉ राजकुमारी अहीर मेम का आभारी रहूँगा|

लघुशोध के दौरान समाजशास्त्र के विभागाध्यक्ष प्रो पूरणमल यादव सर का मार्गदर्शन हमको मिला उनका आभारी रहूगा|

लघुशोध के दौरान समाजशास्त्र विभाग के समाज कार्य स्नातकोतर पाठ्यक्रम के अतिथि व्याख्याता राहुल दुबे सर का बहुत ही सहयोग व अनुसन्धान से जुड़े विश्लेषण व उसके विषयवस्तु को समझाने व अनुसन्धान मे अभूतपूर्व मार्गदर्शन मिला उनका आभार प्रकट करता हु|

लघुशोध के दौरान सहयोग करने के लिए समाजशास्त्र विभाग के समाज कार्य स्नातकोतर पाठ्यक्रम के अतिथि व्याख्याता डॉ पारुल त्यागी मेम, डॉ श्वेता डोडेजा मेम, डॉ धीरज मेघवाल सर, डॉ पूजा पालीवाल मेम के लिए आभार प्रकट करता हु|

धन्यवाद

ललित सिंह राव

स्नातकोतर फाइनल

समाज कार्य स्नातकोतर पाठ्यक्रम

अनुक्रमणिका

क्र.स.	अध्याय	पेज संख्या
1	परिचय	1
2	साहित्यिक समीक्षा	11
3	अनुसन्धान पद्धति	15
4	असंगठित क्षेत्र पर कोविड -19 का प्रभाव	23
5	निष्कर्ष	43
6	सुझाव	44
	अनुसूची एवं सन्दर्भ सूची	46

सारणी अनुक्रमणिका

क्र.स	सारणी	पेज संख्या
1	सारणी संख्या - 1	23
2	सारणी संख्या - 2	24
3	सारणी संख्या - 3	25
4	सारणी संख्या - 4	26
5	सारणी संख्या - 5	27
6	सारणी संख्या - 6	28
7	सारणी संख्या- 7	29
8	सारणी संख्या - 8	30
9	सारणी संख्या - 9	31
10	सारणी संख्या - 10	33
11	सारणी संख्या - 11	34
12	सारणी संख्या - 12	35
13	सारणी संख्या – 13	35
14	सारणी संख्या - 14	36
15	सारणी संख्या - 15	37
16	सारणी संख्या - 16	38
17	सारणी संख्या - 17	39
18	सारणी संख्या - 18	40
19	सारणी संख्या – 19	41

अध्याय 1. परिचय

कोविड -19 एवं कोविड-19 का असंगठित क्षेत्र पर प्रभाव दक्षिण राजस्थान के उदयपुर जिले के मावली ब्लोक के संदर्भ मे :

कोविड -19:- "कोरोना वायरस, जिसकी शुरुआत पिछले साल चीन के वुहान प्रांत के सीफ़ूड और पोल्ट्री बाजार मे हुई है, आज दुनिया भर के लिए एक गंभीर मामला बन गयी है | यह वायरस आज तक 70 देशों में फैलने के बाद, करीबन 3 हज़ारों कि मौत और 10 हज़ार से ज़्यादा लोगो के बीमारी कि वजह बन चुकि है | क्या है यह वायरस, इसकि शुरुवात कैसे हुई, कैसे बन गयी यह एक ग्लोबल हेल्थ इमरजेंसी, अपने आप और अपने परिवार वालो को कैसे बचा सकते है इस वायरस से, क्या इस वायरस का कोई इलाज है? यह सब प्रश्नो का जवाब और इस वायरस कि पूरी जानकारी जानने के लिए आगे पढ़ें | कोरोना वायरस के लक्षण एक मामूली ज़ुखाम से लेकर ज़्यादा गंभीर रोगों कि वजह हो सकती है जैसे कि मिडिल ईस्ट रेस्पिरेटरी सिंड्रोम (Middle East Respiratory Syndrome: MERS-CoV) और सीवियर एक्यूट रेस्पिरेटरी सिंड्रोम (Severe Acute Respiratory Syndrome: SARS-CoV) | कोरोना वायरस ज़ूनोटिक (zoonotic) है जिसका अर्थ है पशुजन्य रोग | यह वायरस से इंसान और जानवर दोनों भुगत सकते है | यह वायरस को अभी "SARS-CoV-2" का नाम रखा गया है और इसकि वजह से आने वाली बीमारी को "Corona Disease 2019" जिसका सक्षिप्त नाम "COVID-19" है |"

इस वायरस के बारे में सबसे पहले चीन के वुहान प्रांत में पता चला है जिसके बाद इसकि पहुंच करीब 70 देशों में पायी जा रही है | 23 जनवरी को, चीन कि गवर्नमेंट अधिकारियो ने बाकी देश और दुनिया से वुहान को, जिसकी जनता संख्या करीबन 1 करोड कि है, वहा इस पुरे शहर को बंद कर दिया और वहा से आने-जाने वाले सभी ट्रांसपोर्ट को बंद करवा दिया गया |

जापान, साउथ कोरिया, थाईलैंड, ताइवान, यूनाइटेड स्टेट्स कि देशों में यह वायरस का प्रवेश और संक्रमण 20 जनवरी के के बाद ज्यादा फेल गया था | जनवरी, 30, 2020 को विश्व स्वास्थ्य संगठन 'WHO' ने इस वायरस ऑउटब्रेक को सामाजिक स्वास्थ्य इमरजेंसी घोषित कर दिया, जो कि एक अंतरराष्ट्रीय महामारी की तरह एक बहुत बड़ा मुद्दा बना |

❖ क्या है कोरोना वायरस के लक्षण ?

कोरोना वायरस से पीडित जनो के लक्षण व इसका असर होने के 2 से 14 दिनो के बाद दिखाई देते हैं | यह लक्षण अधिकतर सामान्य होते है और सामान्य रूप मे इनकी उपेक्षा कि जाती है | कुछ लोग के संक्रमित होने के बावजूद, इनमे कोई लक्षण दिखाई नही देते है | कोई लक्षण ना दिखने पर भी ये संक्रमण हो सकते है। आपके शरीर की वायरल लोड (वायरस की संख्या) एक गंभीर लक्षण वाले बयक्ति के सामान हो सकते है। इसका मतलब है कि आप उतना ही संक्रमण के संकट में हैं जितना के COVID-19 के गंभीर ग्रसित मरीज हैं। 80 प्रतिशत लोग किसी विशेष इलाज के बिना भी ठीक हो जाते है। यदि आप हाल ही में COVID-19 कन्टेनमेंट ज़ोन से यात्रा करके लौटे हैं, तो आपके साथ साथ उन सभी लोगो को यह संक्रमण हो सकता हैं जो आपके या आपके परिवार के संपर्क में आएं है। ऐसे स्थिति में 14-21 दिन की सेल्फ-क्वारंटाइन (स्वयं संगरोध) करना आवश्यक है।

❖ कोरोना वायरस से पीड़ित लोगो के लक्षण कुछ इस तरह के होते है -

- बुखार
- थकान
- सुखी खासी
- नाक का बंध होना
- बेहति नाक
- गले कि खराश
- सांस लेने मे कठिनाई

❖ कैसे फैलता है कोरोना वायरस ?

पहले से इस बिमारी से पीडित लोगो से नज़दीकी बनाये रखने से यह वायरस फैलता है | जब इस बीमारी के मरीज़, के खांसने से या छींकने से आती बूंदों के गिरने के स्थान या वस्तु के साथ संपर्क करके, अपने आँखों को या नाक को या मुँह को छूने से यह वायरस शरीर मे प्रवेश करता है | इन बूंदों को सांस लेने से भी यह वायरस के शिकार बन सकते है | इस बिमारी से प्रभावित लोगो से 1 मीटर (3 feet) दूरी बनाई रखनी चाहिए |

❖ आपकी नाक और मुंह अतिसंवेदनशील हैं?

"2020 की एक रिपोर्ट में उल्लेख किया गया है कि यह कोरोना वायरस गले और शरीर के अन्य हिस्सों की तुलना में आपकी नाक और मुंह में ज़्यादा जाने की सम्भावना होती है। आपके आस-पास की हवा में छींकने, खांसने या सांस लेने की संभावना अधिक हो सकती है।यह तेजी से शरीर के माध्यम से यात्रा कर सकता हैयह कोरोना वायरस अन्य वायरस की तुलना में तेजी से शरीर के माध्यम से यात्रा कर सकता है। चीन के डेटा में पाया गया कि लक्षण शुरू होने के 1 दिन बाद ही COVID-19 वाले लोगों के नाक और गले में वायरस का संक्रमण मिला है।"

❖ भारत मे कोरोना वायरस की स्थिति ?

शुरुवात मे 2020 5 मार्च तक, भारत मे कोरोना वायरस के 30 पुष्ट किये हुए केसेस पायी गयी है: जयपुर मे 17, दिल्ली और NCR क्षेत्र मे 3, आगरा मे 6, तेलंगाना मे 1 और केरला मे 3. दर्ज किये गए मामलो को अस्पतालों मे अलगाव मे रखा गया है |

प्रधान मंत्री का कार्यालय, स्वास्थ्य विभाग एवं परिवार कल्याण मंत्रालय और कैबिनेट सचिव इस परिस्थिती मे कडी निगरानी रख रहे है |

कोरोना वायरस के इलाज के लिए सरकार के द्वारा 2 विशिष्ट वैक्सीन निर्माण किया है | इस को मुमकिन करने के लिए, नैदानिक परिक्षण, स्टडीज और रिसर्च चल रही है | WHO भी पूरी सतर्कता से इस वायरस के इलाज को खोजने मे लगा है |

❖ क्या मास्क पहनने आपको प्रभावित होने से बचा सकता है ?

कोरोना वायरस दुनिया कि सबसे तेज़ी से बढ़ने वाली वायरस बन चूका है | अपने आप को बचने के लिए आधी प्रतिशत जनता सर्जिकल मास्क पहनने मे उतर आ गयी है | सेंटर फॉर डिजीज कण्ट्रोल एंड प्रिवेंशन का यह मानना है कि मास्क्स पहनने से इन्फेक्शन का रिस्क कम करता है लेकिन इस तरीके से पूरी तरीके का सुरक्षा नही मिलता है | अपने आप को बचाने के लिए यही बेहतर है कि जब आप कोरोना वायरस से पीडित लोग से और जगहों दूर रहे |

❖ किन लोगो मे यह वायरस ज़्यादा खतरनाक है ?

बुज़ुर्ग लोग और हाई ब्लड प्रेशर, दिल कि समस्याएं और मधुमेह के रोगियों मे यह रोग और खतरनाक रूप ले सकता है | इसके अलावा, पहले से ही किसी रोग के मरीज़ या इम्युनिटी कम होने वाले लोगो पर यह वायरस का ज़्यादा आसानी से प्रभाव पड़ता है |4

❖ असंगठित क्षेत्र-एक परिचय

"वह सेक्टर जो सरकार के साथ पंजीकृत नहीं किया जाता है और जिसके रोजगार की शर्तें भी नहीं तय की जाती हैं, जिसे नियमित रूप से असंगठित क्षेत्र मान लिया जाता है। यह एक ऐसा सेक्टर होता है, जिसमें किसी भी सरकारी नियमकानून का पालन नहीं - किया जाता है। ऐसे क्षेत्र में प्रवेश करना बहुत ही आसान काम होता है, क्योंकि इसके लिए किसी संबद्धता या पंजीकरण की जरूरत नहीं पड़ती है। वही, सरकार असंगठित क्षेत्र को विनियमित नहीं करती है, और इसलिए इसपर कर नहीं लगाया जाता है। इस क्षेत्र में

प्रमुख रूप से उन छोटे आकार के उद्यम, कार्यशालाएं शामिल किया जाता हैं जहां कम कौशल और अनुत्पादक रोजगार पाया जाता है |

अनौपचारिक या असंगठित क्षेत्र से जुड़े रोजगारों का एक विशाल बहुमत भारतीय अर्थव्यवस्था की एक विशेषता है। आर्थिक सर्वेक्षण 2007-08 के अनुसार भारत में कार्यरत 93% स्वरोजगारी और रोजगाररत कर्मचारियों की संख्या असंगठित क्षेत्र में जुड़ी थी। भारत सरकार के श्रम मंत्रालय को असंगठित श्रम बल के अनुसार- व्यवसाय, रोजगार की प्रकृति, विशेष रूप से व्यथित श्रेणियों और सेवा श्रेणियों के मामले में चार समूहों के तहत वर्गीकृत किया गया है।" 1

- ❖ व्यवसाय के संदर्भ में:

श्रमिको को उनके काम के आधार पर वर्गीकृत किया जाता है, व असंगठित श्रमिक)Unorganized workers) एक परिभाषा है जिससे श्रमिक को वर्गीकृत किया जाता है | सामाजिक सुरक्षा अधिनियम, 2008 के आधार पर ऐसे श्रमिक जो असंगठित क्षेत्र में कार्य कर रहे है उन्हें असंगठित श्रमिक)Unorganized workers) कहाँ गया है | ऐसे श्रमिको के लिए भारत सरकार ने ई श्रम पोर्टल का निर्माण किया है जिससे देश में सभी असंगठित श्रमिक)Unorganized workers) का डेटाबेस सरकार के पास जमा रहे |

छोटे और सीमांत किसान, भूमिहीन खेतिहर मजदूर, हिस्सा साझा करने वाले, मछुआरे, पशुपालक, बीड़ी रोलिंग करनेवाले, ईंट भट्टों और पत्थर खदानों में लेबलिंग और पैकिंग करनेवाले, निर्माण और आधारभूत संरचनाओं में कार्यरत श्रमिक, चमड़े के कारीगर, बुनकर, कारीगर, नमक मजदूर, तेल मिलों आदि में कार्यरत श्रमिकों इस श्रेणी के अंतर्गत माना गया है ।

- रोजगार की प्रकृति के संदर्भ में:

संलग्न खेतिहर मजदूर, बंधुआ मजदूर, प्रवासी मजदूर, अनुबंधी और दैनिक मजदूर इस श्रेणी के अंतर्गत आते हैं।

- विशेष व्यथित श्रेणियों के संदर्भ में :

ताड़ी बनाने वाले, सफाईकर्मी, सिर पर भार ढ़ोने वाले, पशु चालित वाहन वाले श्रमिक इस श्रेणी के अंतर्गत आते हैं।

- सेवा श्रेणियों के संदर्भ में:

घरेलू कामगार, मछुआरे और महिलाएं, नाई, सब्जी और फल विक्रेता, न्यूज पेपर विक्रेता आदि इस श्रेणी के अंतर्गत आते हैं।

- असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग (नेशनल कमीशन फॉर एंटरप्राइजेज इन द ऑर्गेनाइज्ड सेक्टर/एनसीईयूएस) के अनुसार, असंगठित क्षेत्र में 10 से कम श्रमिकों वाली सभी अनिगमित निजी संस्थाएं सम्मिलित हैं जो वस्तु तथा सेवाओं के विक्रय अथवा उत्पादन में संलग्न हैं!
- भारत में, लगभग 80% श्रम शक्ति अनौपचारिक/असंगठित क्षेत्र में कार्यरत है तथा सकल घरेलू उत्पाद का लगभग 50% इस क्षेत्र द्वारा योगदान दिया जाता हैं!

❖ असंगठित क्षेत्र की विशेषता

- निम्न संगठनात्मक स्तर: आकार में छोटा, आमतौर पर 10 से कम कर्मचारी एवं अधिकांशतः परिवार के निकटतम सदस्यों से;
- कार्यों में विषमता;
- औपचारिक क्षेत्र की तुलना में प्रवेश तथा निकास सरल;
- सीमित पूंजी निवेश;
- प्रायः श्रमगहन रोजगार-, निम्न स्तर के कौशल की आवश्यकता होती है; जैसा कि कार्यकर्ता कार्य के दौरान सीखते हैं, आमतौर पर कोई औपचारिक प्रशिक्षण नहीं होता है;

- औपचारिक अनुबंधों के विपरीत श्रम समझौते आकस्मिक कार्य एवंया सामाजिक संबंधों / पर अधिक ध्यान केंद्रित करते हैं; कभीकभी-, नियोक्ता एवं कर्मचारी के मध्य संबंध अलिखित तथा अनौपचारिक होते हैं जिनमें बहुत कम या कोई अधिकार नहीं होते हैं!

❖ असंगठित क्षेत्र के मुद्दे

- अपर्याप्त सुरक्षा एवं स्वास्थ्य मानक: अधिकांश उद्योगों, विशेष रूप से खनन में, अपर्याप्त सुरक्षा तथा स्वास्थ्य मानक देखे जाते हैं। अनौपचारिक क्षेत्र में पर्यावरणीय खतरे सामान्य हैं;
- न्यूनतम मजदूरी में अनियमितताएं: श्रमिकों के वेतन स्तर तथा आय की जांच करने वाले अधिकांश अध्ययनों ने यह अभिनिर्धारित किया है कि दैनिक मजदूरी मजदूरी की न्यूनतम दर से कम है;
- कार्य के दीर्घ घंटे: असंगठित क्षेत्र में लंबे समय तक कार्य करना भारत में आम है, जो श्रम एवं नियामक मानदंडों से परे है;
- निर्धनता एवं ऋणग्रस्तता: असंगठित क्षेत्र के श्रमिकों में संगठित क्षेत्र में उनके समकक्षों की तुलना में अत्यधिक निर्धनता पाई जाती है;
- सामाजिक सुरक्षा उपायों की अनुप्रयोज्यता: ऐसे समय होते हैं जब एक कर्मकार आर्थिक रूप से सक्रिय नहीं हो सकता है। उदाहरण के लिए, रोग अथवा वृद्धावस्था इत्यादि के कारण। असंगठित क्षेत्र के श्रमिकों को जोखिम कवरेज प्रदान करने एवं बेरोजगारी या स्वास्थ्य के मुद्दों जैसे संकट के समय मूलभूत जीवन स्तर के अनुरक्षण को सुनिश्चित करने हेतु शायद ही कोई सामाजिक सुरक्षा उपाय हैं;
- उचित भौतिक वातावरण का अभाव: स्वच्छता सुविधाओं का अभाव श्रमिकों के स्वास्थ्य को प्रभावित करता है। काम पर धुलाई, मूत्रालय तथा शौचालय जैसी सुविधाएं निम्न स्तर की पाई गई हैं;

❖ भारत में असंगठित क्षेत्र मे सरकार द्वारा उठाए गए कदम

- **असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग:** भारत अनौपचारिक अर्थव्यवस्था के समक्ष उपस्थित होने वाली समस्याओं एवं चुनौतियों का अध्ययन करने के लिए 2004 में असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग नेशनल)कमीशन फॉर एंटरप्राइजेज

- औपचारिक अनुबंधों के विपरीत श्रम समझौते आकस्मिक कार्य एवंया सामाजिक संबंधों / पर अधिक ध्यान केंद्रित करते हैं; कभीकभी-, नियोक्ता एवं कर्मचारी के मध्य संबंध अलिखित तथा अनौपचारिक होते हैं जिनमें बहुत कम या कोई अधिकार नहीं होते हैं।

❖ असंगठित क्षेत्र के मुद्दे

- अपर्याप्त सुरक्षा एवं स्वास्थ्य मानक: अधिकांश उद्योगों, विशेष रूप से खनन में, अपर्याप्त सुरक्षा तथा स्वास्थ्य मानक देखे जाते हैं। अनौपचारिक क्षेत्र में पर्यावरणीय खतरे सामान्य हैं;
- न्यूनतम मजदूरी में अनियमितताएं: श्रमिकों के वेतन स्तर तथा आय की जांच करने वाले अधिकांश अध्ययनों ने यह अभिनिर्धारित किया है कि दैनिक मजदूरी मजदूरी की न्यूनतम दर से कम है;
- कार्य के दीर्घ घंटे: असंगठित क्षेत्र में लंबे समय तक कार्य करना भारत में आम है, जो श्रम एवं नियामक मानदंडों से परे है;
- निर्धनता एवं ऋणग्रस्तता: असंगठित क्षेत्र के श्रमिकों में संगठित क्षेत्र में उनके समकक्षों की तुलना में अत्यधिक निर्धनता पाई जाती है;
- सामाजिक सुरक्षा उपायों की अनुप्रयोज्यता: ऐसे समय होते हैं जब एक कर्मकार आर्थिक रूप से सक्रिय नहीं हो सकता है। उदाहरण के लिए, रोग अथवा वृद्धावस्था इत्यादि के कारण। असंगठित क्षेत्र के श्रमिकों को जोखिम कवरेज प्रदान करने एवं बेरोजगारी या स्वास्थ्य के मुद्दों जैसे संकट के समय मूलभूत जीवन स्तर के अनुरक्षण को सुनिश्चित करने हेतु शायद ही कोई सामाजिक सुरक्षा उपाय हैं;
- उचित भौतिक वातावरण का अभाव: स्वच्छता सुविधाओं का अभाव श्रमिकों के स्वास्थ्य को प्रभावित करता है। काम पर धुलाई, मूत्रालय तथा शौचालय जैसी सुविधाएं निम्न स्तर की पाई गई हैं;

❖ भारत में असंगठित क्षेत्र मे सरकार द्वारा उठाए गए कदम

- **असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग:** भारत अनौपचारिक अर्थव्यवस्था के समक्ष उपस्थित होने वाली समस्याओं एवं चुनौतियों का अध्ययन करने के लिए 2004 में असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग नेशनल)कमीशन फॉर एंटरप्राइजेज

इन द अननामक एक आयोग की स्थापना करने वाले (एनसीईयूएस/ऑर्गेनाइज्ड सेक्टर- अग्रणी देशों में से एक है।

- **निर्धनता से संबंधित विकास योजनाएं:** नेहरू रोजगार योजना, मनरेगा एवं स्वर्ण जयंती शहरी रोजगार योजना जैसी निर्धनता उन्मूलन के लिए अनेक योजनाएं प्रारंभ की गई हैं।
- **सामाजिक सुरक्षा:** सामाजिक सुरक्षा लाभ प्रदान करने के लिए, संसद ने असंगठित श्रमिक सामाजिक सुरक्षा अधिनियम, 2008 अधिनियमित किया। अटल पेंशन योजना, प्रधान मंत्री सुरक्षा बीमा योजना, पीएमधन योजना-श्रम योगी मान -, पीएमस्वनिधि यना - जैसी योजनाओं का भी विमोचन किया गया;
- **कौशल विकास:** कौशल संवर्धन हेतु, सरकार ने कौशल भारत मिशन, प्रधान मंत्री कौशल विकास योजना, दीन दयाल उपाध्याय ग्रामीण कौशल योजना, पूर्व शिक्षा की मान्यता इत्यादि जैसे विभिन्न कार्यक्रम प्रारंभ किए हैं;
- **बीमा योजना:** प्रधानमंत्री जीवन ज्योति योजना;
- **विकलांगता कवर के लिए प्रधानमंत्री सुरक्षा योजना;**
- **अर्थव्यवस्था को औपचारिक बनाना:** जीएसटी, डिजिटलीकरण जैसे कदम अर्थव्यवस्था को औपचारिक बनाने की दिशा में कदम हैं।

❖ अनुसन्धान क्षेत्र

उदयपुर

मेवाड़ की राजधानी उदयपुर की स्थापना 1559 में महाराणा उदयसिंह ने की। किन्तु तिथि को लेकर इतिहासकारों के अलग-अलम मत हैं। कुछ इतिहासकार हिन्दू कैलेंडर के अनुसार उदयपुर की स्थापना आखातीज के दिन मानते हैं तो कुछ का कहना है कि उदयपुर की स्थापना पंद्रह अप्रैल 1553 में ही हो गई थी। जिसके प्रमाण उदयपुर(राजस्थान) के मोतीमहल में मिलते हैं। जिसे उदयपुर का पहला महल माना जाता है जो अब खंडहर में तब्दील हो चुका है, जिसकी सुरक्षा मोतीमगरी ट्रस्ट कर रहा है। महाराणा उदय सिंह द्वितीय, जो महाराणा प्रताप के पिता थे, चित्तौड़गढ़ दुर्ग से मेवाड़ का संचालन करते थे। उस समय चित्तौड़गढ़ निरन्तर मुगलों के आक्रमण से घिरा हुआ था। इसी दौरान महाराणा उदयसिंह अपने पौत्र अमरसिंह के जन्म के उपलक्ष्य में मेवाड़ के शासक भगवान एकलिंगजी के दर्शन करने कैलाशपुरी आए थे। उन्होंने यहां आयड़ नदी के किनारे शिकार के लिए डेरे डलवाए थे। तब उनके दिमाग में चित्तौड़गढ़ पर मुगल आतताइयों के आक्रमण को लेकर सुरक्षित जगह राजधानी बनाए जाने का मंथन चल रहा था।

इसी दौरान उन्होंने एक शाम अपने सामंतों के समक्ष उदयपुर नगर बसाने का विचार रखा। जिसका सभी सामंत तथा मंत्रियों ने समर्थन किया। उदयपुर की स्थापना के लिए वह जगह तलाशने पहुंचे तब उन्होंने यहां पहला महल बनवाया, जिसका नाम मोती महल दिया, जो वर्तमान मोती मगरी पर खंडहर के रूप में मौजूद है। जिसको लेकर कई इतिहासकारों का मानना है कि मोतीमहल उदयपुर का पहला महल है और एक तरह से इस के निर्माण के साथ ही उदयपुर नगर की स्थापना शुरू हुई। स्थापना का दिन पंद्रह अप्रेल 1553 था और उस दिन आखातीज थी।

बाकी इतिहासकार भी यह मानते हैं कि उदयपुर की स्थापना आखातीज के दिन हुई है, लेकिन यह तिथि पंद्रह अप्रैल 1553 है इसको लेकर कोई शिलालेख या प्रमाण मौजूद नहीं हैं।

इतिहासकारों की मानें तो एक बार महाराणा उदयसिंह मोतीमहल में निवास कर रहे थे, तभी वह शिकार की भावना से खरगोश का पीछा करते हुए उस जगह पहुंचे जहां राजमहल मौजूद हैं। तब उदयुपर में फतहसागर नहीं था और वह एक सहायक नदी के रूप में था। वहां एक योगी साधु धूणी रमाए बैठे थे। साधु जगतगिरी से उनकी मुलाकात हुई और महाराणा के दिल का हाल

जानकार साधु ने धूणी की जगह पर राज्य बसाने का सुझाव दिया, जिसे महाराणा ने मान लिया।

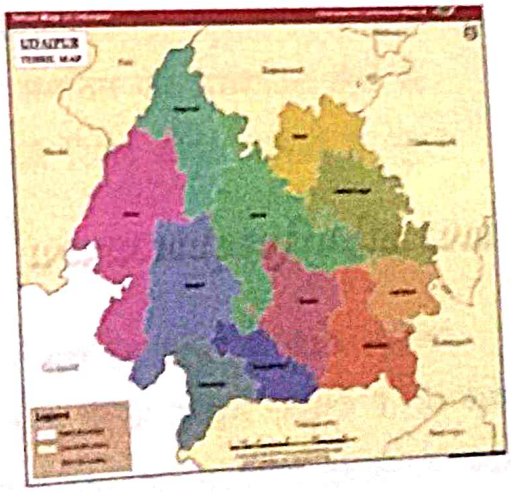
"यह बात सन 1559 की थी। जिस पहाड़ी की चोटी पर महल का निर्माण कराया गया, वह समूचे शहर से दिखाई देता है। जहां अलग-अलग काल में महाराणाओं ने राजमहल का निर्माण कराया। बाद में सरदार, राव, उमराव और ठिकानों के लोग भी राजमहल के पास बसाए गए। जिनकी हवेलियां भी राजमहल के इर्द-गिर्द मौजूद हैं। इतिहासकार जोगेंद्र राजपुरोहित बताते हैं कि पंद्रह अप्रेल को इस तरह उदयपुर शहर की स्थापना हुई।"

वर्तमान मे उदयपुर की कुल जनसंख्या 3,445,342 जिसमे कुल पुरुष 1,566,801 एवं महिला 1,501,619 हैं, जिसमे कुल साक्षर 1,582,629 हैं जिसमे से पुरुष साक्षर व महिला साक्षर हैं, तथा उदयपुर का लिंगानुपात 958 महिला 1000 पुरुष पर है. उदयपुर मे कुल 11 तहसील हैं जिनकी जनसंख्या इस प्रकार हैं3

मावली

मावली एक तहसील हे जो दक्षिणी राजस्थान के उदयपुर जिले मे स्थित हे ये जिला मुख्यालय से 45 किमी दूर हे तथा यहा की आबादी 5 लाख हे. तथा ये अनुसन्धान यहा के असंगठित क्षेत्र से जुड़े व्यवसायों से किया गया हैं.जिसमे व्यवसायियो ओर उनके कर्मचारी से बात करके अनुसधान किया गया.

Tehsils	Population 2011	Male	Female	Households
Mavli	253,344	128,830	124,514	51,890
Gogunda	214,948	109,673	105,275	44,340
Kotra	230,532	116,764	113,768	41,790
Jhadol	249,297	126,124	123,173	51,655
Girwa	898,133	462,688	435,445	186,254
Vallabhnagar	271,679	138,834	132,845	56,959
Lasadiya	91,229	46,364	44,865	18,884
Salumbar	248,337	125,974	122,363	50,813
Sarada	231,209	118,025	113,184	47,845
Rishabhdeo	172,935	88,216	84,719	32,771
Kherwara	206,777	105,309	101,468	40,350



अध्याय 2. साहित्यिक समीक्षा

वर्ष 2018 के आँकड़ों के अनुसार, भारतीय श्रमिकों में लगभग 81% असंगठित क्षेत्र से जुड़े हुए थे और इनमें से एक बड़ी आबादी उन अकुशल श्रमिकों की है जो दैनिक मज़दूरी पर काम करते हैं।

हालाँकि वर्तमान में भारत में COVID-19 की महामारी के प्रभाव पश्चिमी देशों की तुलना में काफी कम रहे हैं, परंतु देशभर में लागू लॉकडाउन के कारण सभी क्षेत्रों में कामगारों की आय प्रभावित हुई है।

देश में विभिन्न क्षेत्रों के उद्योगों का मुनाफा स्थानीय व्यवसाय के साथ अन्य देशों में होने वाले निर्यात पर निर्भर करता है परंतु वैश्विक अर्थव्यवस्था पर COVID-19 के प्रभाव के कारण बाज़ार में मांग की कमी से निर्यात पर आश्रित व्यवसायों को काफी क्षति हुई है।

COVID-19 के कारण शहरों में काम करने वाले प्रवासी मज़दूरों को रोज़गार न मिलने और यातायात तथा मंडियों के पूर्ण रूप से सक्रिय न रहने से ग्रामीण अर्थव्यवस्था को गंभीर क्षति होने का अनुमान है।1

स्टैंडिंग कमिटी की रिपोर्ट का सारांश

श्रम संबंधी स्टैंडिंग कमिटी (चेयर: भर्तृहरि महताब) ने 3 अगस्त, 2021 को 'बढ़ती बेरोजगारी पर कोविड-19 का प्रभाव और संगठित एवं असंगठित क्षेत्रों में नौकरियों/आजीविका का नुकसान' विषय पर अपनी रिपोर्ट सौंपी। कमिटी के मुख्य निष्कर्षों और सुझावों में निम्नलिखित शामिल हैं:

अनौपचारिक क्षेत्र में श्रमिक: कमिटी ने कहा कि भारत में 90% श्रमिक अनौपचारिक क्षेत्र में काम करते हैं। इन श्रमिकों में निम्नलिखित शामिल हैं: (i) प्रवासी श्रमिक, (ii) कॉन्ट्रैक्ट श्रमिक, (iii) निर्माण श्रमिक और (iv) फुटपाथी दुकानदार। कमिटी

ने कहा कि मौसमी रोजगार और असंगठित क्षेत्रों में नियोक्ता-कर्मचारी संबंधों की कमी के कारण महामारी में इन श्रमिकों पर सबसे बुरा असर हुआ। कमिटी ने केंद्र और राज्य सरकारों को निम्नलिखित उपाय करने का सुझाव दिया: (i) उद्यमिता के अवसरों को बढ़ावा देना, (ii) परंपरागत मैन्यूफैक्चरिंग क्षेत्रों में निवेश को आकर्षित करना और औद्योगिक क्लस्टर्स को विकसित करना, (iii) सामाजिक सुरक्षा उपायों को मजबूती देना, (iv) अनौपचारिक क्षेत्र में श्रमिकों का डेटाबेस बनाए रखना, और (v) व्यावसायिक प्रशिक्षण को बढ़ावा देना। उसने केंद्र सरकार को सुझाव दिया कि वह अनौपचारिक क्षेत्र में श्रमिकों के लाभ के लिए सेस फंड्स बनाने की संभावनाएं तलाशे।2

असंगठित क्षेत्र पर प्रभाव:

असंगठित क्षेत्र में 10 से कम कर्मचारियों वाले माल और सेवाओं के उत्पादन और बिक्री में व्यक्तियों और परिवारों के स्वामित्व वाले असंगठित उद्यम शामिल हैं। महामारी ने निम्नलिखित उद्योगों को गंभीर रूप से प्रभावित किया है:

प्रवासी श्रमिक और श्रम बल: महामारी के झटके ने श्रम शक्ति को असमान रूप से प्रभावित किया। संकट ने श्रम बाजार में पहले से मौजूद असमानता को बढ़ा दिया। मजदूरों का उनकी आय और सामाजिक सुरक्षा के आधार पर क्रमबद्ध क्रम निम्नानुसार है:

नियमित और औपचारिक रूप से नियोजित: नियमित और औपचारिक रूप से नियोजित सबसे कम प्रभावित हुए हैं। नौकरी के कार्यकाल, उच्च वेतन और सामाजिक सुरक्षा के कारण वे एक आरामदायक स्थिति में हैं।

नियमित और अनौपचारिक रूप से नियोजित

स्व-नियोजित: स्व-नियोजित भी प्रतिकूल रूप से प्रभावित हुए हैं, लेकिन उनके उद्योग के आधार पर, उन्हें खुद को बनाए रखने के लिए पर्याप्त पारिश्रमिक प्राप्त है।

सामान्य श्रमिक: ज्यादातर प्रवासी, सामान्य श्रमिक या दिहाड़ी मजदूर होते हैं। तालाबंदी लागू होने के कारण, कई बेरोजगार थे।

काम करने वाले कम पढ़े-लिखे आकस्मिक कर्मचारी सबसे अधिक प्रभावित होते हैं। भुखमरी, दुर्घटनाओं और समय पर चिकित्सा देखभाल प्राप्त नहीं होने जैसे विभिन्न कारणों से 300 से अधिक प्रवासी श्रमिकों की मृत्यु हो गई।3

दिल्ली में अधिकांश कामगार असंगठित रूप से काम करते हैं और नवीनतम अनुमानों के अनुसार दिल्ली में क़रीब 49.2 लाख असंगठित कामगार हैं. यह रिपोर्ट WIEGO के नेतृत्व में की गई 'कोविड-19 संकट और असंगठित क्षेत्र' स्टडी की दिल्ली शहर में हुई दूसरी दौर की जाँच - परिणामो को प्रस्तुत करती है. यह सर्वे मध्य-2021 में किया गया था ताकि यह आकलन किया जा सके कि कामगार कैसे COVID-19 संकट दोबारा सक्रिय होने और चालू आर्थिक तनाव का अनुभव कर रहे थे, और वे किस हद तक (यदि कोई) रिकवर कर पाए.

इसके प्रमुख निष्कर्षों में से हैं:

असंगठित कामगारों के लिए कोई रिकवरी नहीं: महामारी और संबंधित सरकारी उपायों से 2021 में असंगठित कामगारों की आजीविका पर नकारात्मक प्रभाव कम होने और उलटने के बजाय जारी है और गहरा हो रहा है. औसत काम के दिनों को देखें तो कचरा कामगार, घरेलू कामगारों, घर-खाता कामगारों और फुटपाथ विक्रेताओं के लिए रिकवरी असमान और बिखरी हुई रही है. कामगारों की कमाई सभी क्षेत्रों में पूर्व-कोविड-19 स्तर से नीचे बनी हुई है|

महिला कामगारों पर असमानुपातिक रूप से नकारात्मक प्रभाव देखा जा सकता है. आय गिर रही है जबकि कर्ज बढ़ रहा है. कामगार भोजन असुरक्षा का अनुभव कर रहे हैं. लगभग आधे (44%) लोगों ने भोजन सुरक्षा की बात की और बताया कि उनके परिवार को कई वक्त का भोजन छोड़ना पड़ा या भोजन की मात्रा कम करनी पड़ी|

संकट का सामना करने के लिए सरकारी मदद अपर्याप्त रही है. संकट का सामना करने के लिए कामगारों को अपनी स्वयं की बचत और सामाजिक नेटवर्क पर निर्भर रहना पड़ा. ये बिंदु और भी ज़्यादा महत्वपूर्ण हो जाता है क्योंकि इन कामगारों में से अधिकांश प्रवासी हैं|4

(Vijayakumar - 2020)

महामारी के कारण श्रम व्यवस्था तथा आर्थिक रूप से अर्थव्यवस्था पर बहुत ही गहरा प्रभाव पड़ता है|5

(A. Lee & Cho, 2016)

श्रम बाजार पर महामारी का प्रभाव;

कोरियाई श्रम बाजार के आधार पर महामारी को लेकर एक निश्कर्ष निकला की महामारी के कारण बेरोजगारी की स्थिति पर बड़ जाती हैं ,इस अध्ययन के निष्कर्षों में कहा गया है कि उच्च आयु वर्ग के पुराने कार्यकर्ता उच्च स्तर पर हैं को महामारी मे कम नुकसान होता हैं लेकिन कम आयु वर्ग के श्रमिकों को श्रम जोखिम जयादा होती हे इसलिए इनके चिकित्सा सुरक्षा को बढ़ाया जाना चाहिए|

श्रम बाजार में सुधार और बेरोजगारी को रोकने के लिए महामारी से पूर्व तेयारी करनी चाइये|6

(G. O. M. Lee & Warner, 2006)

महामारियो के कारण बाजार मे नोकरियो पर गहरा प्रभाव पड़ता हैं साथ ही अर्थव्यवस्था मे इसके असर को उतार के रूप मे देखनो को मिलता हैं|7

महामारी के कारण के कारण विभिन्न रूप से फेक्टरियो मे लोकडाउन के कारण श्रम व्यवस्था पर अधिक असर पड़ा, साथ इसके कारण निम्न वर्ग के मजदूरो को अपनी नोकरी से भी दूर होना पड़ा|8

अध्याय 3. अनुसन्धान पद्धति

1. अध्यनन का क्षेत्र

मावली एक तहसील हे जो दक्षिणी राजस्थान के उदयपुर जिले मे स्थित हे ये जिला मुख्यालय से 45 किमी दूर हे तथा यहा की आबादी 5 लाख हे. तथा ये अनुसन्धान यहा के असंगठित क्षेत्र से जुड़े व्यवसायों से किया गया हैं.जिसमे व्यवसायियो ओर उनके कर्मचारी से बात करके अनुसधान किया गया.

2 उदेश्य

1. कोविड के कारण असंगठित क्षेत्रो पर हुवे प्रभाव को जानना.
2. असंगठित क्षेत्रो के कमर्चारीयो के उपर कोविड के प्रभाव की जानकारी प्राप्त करना.
3. सरकार द्वारा असंगठित के व्यवसाय को दि गई आर्थिक सहायता के बारे मे जानना.
4. कोविड के कारण असंगठित क्षेत्र मे हुवे नुकसान को जानना.

3 परिकल्पना

- कोविड-19 के कारण अंसगठित क्षेत्रो में आर्थिक रूप से उसका निचला स्तर देखनो को मिला है|
- कोविड -19 के कारण असंगठित क्षेत्रो में ठहराव के कारण भारत की अर्थव्यवस्था में भी उतार देखा गया है|
- सरकार के द्वारा असंगठित क्षेत्र मेसे जुड़े लोगों की कोविड-19 के पश्चात आर्थिक रूप से एक अच्छी सहायता नही दी गई है|
- कोविड-19 के असंगठित क्षेत्र से जुड़े व्यवसाय के वस्तुओ के कीमतों. में भी उतार-चढाव देखनो को मिला है|

4 परिचय

कोविड -19 एवं कोविड-19 का असंगठित क्षेत्र पर प्रभाव दक्षिण राजस्थान के उदयपुर जिले के मावली ब्लोक के संदर्भ मे

कोविड -19:- "कोरोना वायरस, जिसकी शुरुआत पिछले साल चीन के वुहान प्रांत के सीफ़ूड और पोल्ट्री बाजार मे हुई है, आज दुनिया भर के लिए एक गंभीर मामला बन गयी है | यह वायरस आज तक 70 देशों में फैलने के बाद, करीबन 3 हज़ारों कि मौत और 10 हज़ार से ज़्यादा लोगो के बीमारी कि वजह बन चुकि है | क्या है यह वायरस, इसकि शुरुवात कैसे हुई, कैसे बन गयी यह एक ग्लोबल हेल्थ इमरजेंसी, अपने आप और अपने परिवार वालो को कैसे बचा सकते है इस वायरस से, क्या इस वायरस का कोई इलाज है? यह सब प्रश्नो का जवाब और इस वायरस कि पूरी जानकारी जानने के लिए आगे पढ़ें | कोरोना वायरस के लक्षण एक मामूली ज़ुखाम से लेकर ज़्यादा गंभीर रोगों कि वजह हो सकती है जैसे कि मिडिल ईस्ट रेस्पिरेटरी सिंड्रोम (Middle East Respiratory Syndrome: MERS-CoV) और सीवियर एक्यूट रेस्पिरेटरी सिंड्रोम (Severe Acute Respiratory Syndrome: SARS-CoV) | कोरोना वायरस ज़ूनोटिक (zoonotic) है जिसका अर्थ है पशुजन्य रोग | यह वायरस से इंसान और जानवर दोनों भुगत सकते है | यह वायरस को अभी "SARS-CoV-2" का नाम रखा गया है और इसकि वजह से आने वाली बीमारी को "Corona Disease 2019" जिसका सक्षिप्त नाम "COVID-19" है |"

- ❖ क्या है कोरोना वायरस के लक्षण ?

कोरोना वायरस से पीडित जनो के लक्षण व इसका असर होने के 2 से 14 दिनो के बाद दिखाई देते हैं | यह लक्षण अधिकतर सामान्य होते है और सामान्य रूप मे इनकी उपेक्षा कि जाती है | कुछ लोग के संक्रमित होने के बावजूद, इनमे कोई लक्षण दिखाई नही देते है | कोई लक्षण ना दिखने पर भी ये संक्रमण हो सकते है। आपके शरीर की वायरल लोड (वायरस की संख्या) एक गंभीर लक्षण वाले यक्ति के समान हो सकते है। इसका मतलब है कि आप उतना ही संक्रमण के संकट में हैं जितना

के COVID-19 के गंभीर ग्रसित मरीज हैं। 80 प्रतिशत लोग किसी विशेष इलाज के बिना भी ठीक हो जाते है। यदि आप हाल ही में COVID-19 कन्टेनमेंट ज़ोन से यात्रा करके लौटे हैं, तो आपके साथ साथ उन सभी लोगो को यह संक्रमण हो सकता हैं जो आपके या आपके परिवार के संपर्क में आएं है। ऐसे स्थिति में 14-21 दिन की सेल्फ-क्वारंटाइन (स्वयं संगरोध) करना आवश्यक है।

❖ असंगठित क्षेत्र-एक परिचय

"वह सेक्टर जो सरकार के साथ पंजीकृत नहीं किया जाता है और जिसके रोजगार की शर्तें भी नहीं तय की जाती हैं, जिसे नियमित रूप से असंगठित क्षेत्र मान लिया जाता है। यह एक ऐसा सेक्टर होता है, जिसमें किसी भी सरकारी नियमकानून का पालन नहीं - में प्रवेश करना बहुत ही आसान काम होता है किया जाता है। ऐसे क्षेत्र, क्योंकि इसके लिए किसी संबद्धता या पंजीकरण की जरूरत नहीं पड़ती है। वही, सरकार असंगठित क्षेत्र को विनियमित नहीं करती है, और इसलिए इस पर कर नहीं लगाया जाता है। इस क्षेत्र में प्रमुख रूप से उन छोटे आकार के उद्यम, कार्यशालाएं शामिल किया जाता हैं जहां कम कौशल और अनुत्पादक रोजगार पाया जाता है |
अनौपचारिक या असंगठित क्षेत्र से जुड़े रोजगारों का एक विशाल बहुमत भारतीय अर्थव्यवस्था की एक विशेषता है। आर्थिक सर्वेक्षण 2007-08 के अनुसार भारत में कार्यरत 93% स्वरोजगारी और रोजगाररत कर्मचारियों की संख्या असंगठित क्षेत्र में जुड़ी थी। भारत सरकार के श्रम मंत्रालय को असंगठित श्रम बल के अनुसार- व्यवसाय, रोजगार की प्रकृति, विशेष रूप से व्यथित श्रेणियों और सेवा श्रेणियों के मामले में चार समूहों के तहत वर्गीकृत किया गया है।" 1

❖ व्यवसाय के संदर्भ में:
श्रमिको को उनके काम के आधार पर वर्गीकृत किया जाता है, व असंगठित श्रमिक)Unorganized workers) एक परिभाषा है जिससे श्रमिक को वर्गीकृत किया जाता है | सामाजिक सुरक्षा अधिनियम, 2008 के आधार पर ऐसे श्रमिक जो असंगठित क्षेत्र में

कार्य कर रहे है उन्हें असंगठित श्रमिक)Unorganized workers) कहाँ गया है | ऐसे श्रमिको के लिए भारत सरकार ने ई श्रम पोर्टल का निर्माण किया है जिससे देश में सभी असंगठित श्रमिक)Unorganized workers) का डेटाबेस सरकार के पास जमा रहे |

छोटे और सीमांत किसान, भूमिहीन खेतिहर मजदूर, हिस्सा साझा करने वाले, मछुआरे, पशुपालक, बीड़ी रोलिंग करनेवाले, ईंट भट्टों और पत्थर खदानों में लेबलिंग और पैकिंग करनेवाले, निर्माण और आधारभूत संरचनाओं में कार्यरत श्रमिक, चमड़े के कारीगर, बुनकर, कारीगर, नमक मजदूर, तेल मिलों आदि में कार्यरत श्रमिकों इस श्रेणी के अंतर्गत माना गया है ।

- रोजगार की प्रकृति के संदर्भ में:

संलग्न खेतिहर मजदूर, बंधुआ मजदूर, प्रवासी मजदूर, अनुबंधी और दैनिक मजदूर इस श्रेणी के अंतर्गत आते हैं।

- विशेष व्यथित श्रेणियों के संदर्भ में :

ताड़ी बनाने वाले, सफाईकर्मी, सिर पर भार ढ़ोने वाले, पशु चालित वाहन वाले श्रमिक इस श्रेणी के अंतर्गत आते हैं।

- सेवा श्रेणियों के संदर्भ में:

घरेलू कामगार, मछुआरे और महिलाएं, नाई, सब्जी और फल विक्रेता, न्यूज पेपर विक्रेता आदि इस श्रेणी के अंतर्गत आते हैं।

- असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग (नेशनल कमीशन फॉर एंटरप्राइजेज इन द ऑर्गेनाइज्ड सेक्टर/एनसीईयूएस) के अनुसार, असंगठित क्षेत्र में 10 से कम श्रमिकों वाली सभी अनिगमित निजी संस्थाएं सम्मिलित हैं जो वस्तु तथा सेवाओं के विक्रय अथवा उत्पादन में संलग्न हैं!
- भारत में, लगभग 80% श्रम शक्ति अनौपचारिक/असंगठित क्षेत्र में कार्यरत है तथा सकल घरेलू उत्पाद का लगभग 50% इस क्षेत्र द्वारा योगदान दिया जाता हैं!

❖ असंगठित क्षेत्र की विशेषता

- निम्न संगठनात्मक स्तर: आकार में छोटा, आमतौर पर 10 से कम कर्मचारी एवं अधिकांशतः परिवार के निकटतम सदस्यों से;
- कार्यों में विषमता;
- औपचारिक क्षेत्र की तुलना में प्रवेश तथा निकास सरल;
- सीमित पूंजी निवेश;
- प्रायः श्रमगहन रोजगार-, निम्न स्तर के कौशल की आवश्यकता होती है; जैसा कि कार्यकर्ता कार्य के दौरान सीखते हैं, आमतौर पर कोई औपचारिक प्रशिक्षण नहीं होता है;
- औपचारिक अनुबंधों के विपरीत श्रम समझौते आकस्मिक कार्य एवंया सामाजिक संबंधों पर अधिक ध्यान केंद्रित करते हैं; कभीकभी-, नियोक्ता एवं कर्मचारी के मध्य संबंध अलिखित तथा अनौपचारिक होते हैं जिनमें बहुत कम या कोई अधिकार नहीं होते हैं।

❖ असंगठित क्षेत्र के मुद्दे

- अपर्याप्त सुरक्षा एवं स्वास्थ्य मानक: अधिकांश उद्योगों, विशेष रूप से खनन में, अपर्याप्त सुरक्षा तथा स्वास्थ्य मानक देखे जाते हैं। अनौपचारिक क्षेत्र में पर्यावरणीय खतरे सामान्य हैं;
- न्यूनतम मजदूरी में अनियमितताएं: श्रमिकों के वेतन स्तर तथा आय की जांच करने वाले अधिकांश अध्ययनों ने यह अभिनिर्धारित किया है कि दैनिक मजदूरी मजदूरी की न्यूनतम दर से कम है;
- कार्य के दीर्घ घंटे: असंगठित क्षेत्र में लंबे समय तक कार्य करना भारत में आम है, जो श्रम एवं नियामक मानदंडों से परे है;
- निर्धनता एवं ऋणग्रस्तता: असंगठित क्षेत्र के श्रमिकों में संगठित क्षेत्र में उनके समकक्षों की तुलना में अत्यधिक निर्धनता पाई जाती है;
- सामाजिक सुरक्षा उपायों की अनुप्रयोज्यता: ऐसे समय होते हैं जब एक कर्मकार आर्थिक रूप से सक्रिय नहीं हो सकता है। उदाहरण के लिए, रोग अथवा वृद्धावस्था इत्यादि के कारण। असंगठित क्षेत्र के श्रमिकों को जोखिम कवरेज प्रदान करने एवं बेरोजगारी या स्वास्थ्य के मुद्दों जैसे संकट के समय मूलभूत जीवन स्तर के अनुरक्षण को सुनिश्चित करने हेतु शायद ही कोई सामाजिक सुरक्षा उपाय हैं;

- उचित भौतिक वातावरण का अभाव: स्वच्छता सुविधाओं का अभाव श्रमिकों के स्वास्थ्य को प्रभावित करता है। काम पर धुलाई, मूत्रालय तथा शौचालय जैसी सुविधाएं निम्न स्तर की पाई गई हैं;

❖ भारत में असंगठित क्षेत्र मे सरकार द्वारा उठाए गए कदम

- **असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग:** भारत अनौपचारिक अर्थव्यवस्था के समक्ष उपस्थित होने वाली समस्याओं एवं चुनौतियों का अध्ययन करने के लिए 2004 में असंगठित क्षेत्र में उद्यम के लिए राष्ट्रीय आयोग नेशनल)कमीशन फॉर एंटरप्राइजेज इन द अननामक एक आयोग की स्थापना करने वाले (एनसीईयूएस/ऑर्गेनाइज्ड सेक्टर- एक है अग्रणी देशों में से!
- **निर्धनता से संबंधित विकास योजनाएं:** नेहरू रोजगार योजना, मनरेगा एवं स्वर्ण जयंती शहरी रोजगार योजना जैसी निर्धनता उन्मूलन के लिए अनेक योजनाएं प्रारंभ की गई हैं!
- **सामाजिक सुरक्षा:** सामाजिक सुरक्षा लाभ प्रदान करने के लिए, संसद ने असंगठित श्रमिक सामाजिक सुरक्षा अधिनियम, 2008 अधिनियमित किया। अटल पेंशन योजना, प्रधान मंत्री सुरक्षा बीमा योजना, पीएमधन योजना-श्रम योगी मान -, पीएमस्वनिधि यना - जैसी योजनाओं का भी विमोचन किया गया;
- **कौशल विकास:** कौशल संवर्धन हेतु, सरकार ने कौशल भारत मिशन, प्रधान मंत्री कौशल विकास योजना, दीन दयाल उपाध्याय ग्रामीण कौशल योजना, पूर्व शिक्षा की मान्यता इत्यादि जैसे विभिन्न कार्यक्रम प्रारंभ किए हैं;
- **बीमा योजना:** प्रधानमंत्री जीवन ज्योति योजना;
- **विकलांगता कवर के लिए प्रधानमंत्री सुरक्षा योजना;**
- **अर्थव्यवस्था को औपचारिक बनाना:** जीएसटी, डिजिटलीकरण जैसे कदम अर्थव्यवस्था को औपचारिक बनाने की दिशा में कदम हैं!

5 अनुसन्धान क्षेत्र

मावली एक तहसील हे जो दक्षिणी राजस्थान के उदयपुर जिले मे स्थित हे ये जिला मुख्यालय से 45 किमी दूर हे तथा यहा की आबादी 5 लाख हे. तथा ये अनुसन्धान यहा के असंगठित क्षेत्र से जुड़े व्यवसायों से किया गया हैं.जिसमे व्यवसायियो ओर उनके कर्मचारी से बात करके अनुसधान किया गया.

6 प्रतिचयन

असंगठित क्षेत्र से जुड़े हुवे विभिन्न व्यवसाय वर्ग जिसमे होटल , रेस्ट्रोरेन्ट , सेलून , कपडे से जुड़े व्यापार, ज्वेलर्स , फेक्ट्रीयो आदि से जुड़े व्यापारियों एवं कर्मचारियों से बात करके कोविड के कारण हुवे प्रभाव तथा उससे हुवे नुकसान के बारे मे जानकरी प्राप्त की गई ।

7 प्रतिचयन विधि

प्रतिचयन के लिए नमूना प्रतिचयन विधि का उपयोग किया गया, नमूनाकरण को शोधकर्ताओं द्वारा अपनाई गई एक विधि के रूप में परिभाषित किया गया है जहां वे उत्तरदाताओं के आसानी से उपलब्ध पूल से बाजार अनुसंधान डेटा एकत्र करते हैं। यह सबसे अधिक इस्तेमाल की जाने वाली सैंपलिंग तकनीक है क्योंकि यह अविश्वसनीय रूप से शीघ्र, सरल और किफायती है। कई मामलों में, सदस्य नमूने का हिस्सा बनने के लिए आसानी से पहुंच सकते हैं। शोधकर्ता उन स्थितियों में विभिन्न नमूनाकरण तकनीकों का उपयोग करते हैं जहाँ बड़ी आबादी होती है। ज्यादातर मामलों में, पूरे समुदाय का परीक्षण करना व्यावहारिक रूप से असंभव है क्योंकि उन तक पहुंचना आसान नहीं होता है। शोधकर्ता उन स्थितियों में सुविधाजनक नमूनाकरण का उपयोग करते हैं जहां प्रमुख अनुसंधान के लिए अतिरिक्त इनपुट आवश्यक नहीं होते हैं। इस नमूने का हिस्सा बनने के लिए किसी मानदंड की आवश्यकता नहीं है। इस प्रकार, इस नमूने में तत्वों को शामिल करना अविश्वसनीय रूप से सरल हो जाता है। जनसंख्या के सभी घटक पात्र हैं और नमूने में शामिल होने के लिए शोधकर्ता की निकटता पर निर्भर करते हैं शोधकर्ता केवल निकटता के आधार पर सदस्यों का चयन करता है और यह विचार नहीं करता कि वे पूरी आबादी का प्रतिनिधित्व करते हैं या नहीं। इस तकनीक का उपयोग करके, वे आदतों, विचारों और दृष्टिकोणों को सबसे आसान तरीके से देख सकते हैं।

8 डाटा कलेक्शन

डाटा के कलेक्ट करने के लिए दोनों विधियों का उपयोग किया

- प्राथमिक विधि - इसके तहत गुगल फॉर्म की सहायता लेते हुवे डाटा को कलेक्ट किया गया|
- द्वितीय विधि - इसके तहत डाटा के लिए विभिन्न वेबसाइट , पुस्तकें , पत्रों व न्यूज़ पेपर का उपयोग किया गया|

9 संदर्भ सूचि

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अध्याय 4. असंगठित क्षेत्र पर कोविड -19 का प्रभाव

व्यवसायी वर्ग पर अनुसन्धान

कोविड-19 का असंगठित क्षेत्र पर प्रभाव के तहत अनुसन्धान के दौरान विभिन्न असंगठित क्षेत्र से जुड़े हुवे व्यापारियों से बात करके अनुसन्धान किया गया

व्यवसायी वर्ग

व्यवसायी वर्ग	प्रतिशत
होटल & रेस्ट्रोरेन्ट	30%
सेलून	10%
कपडे का व्यवसाय	5%
इलेक्ट्रोनिक	30%
ज्वेलर्स	10%
हार्डवेयर वर्क	10%
अन्य व्यवसाय	5%

सारणी संख्या-1

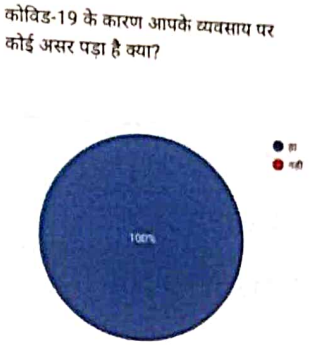
सारणी विश्लेषण

1. 30% उत्तरदाताओ ने बताया की वो होटल व रेस्ट्रोरेंट का व्यवसाय करते हैं|
2. 10% उत्तरदाताओ ने बताया की वो सेलून का व्यवसाय करते हैं|
3. 30% उत्तरदाताओ ने बताया की वो ईलेक्ट्रोनिक का व्यवसाय करते हैं|
4. 5% उत्तरदाताओ ने बताया की वो कपड़े का व्यवसाय करते हैं|
5. 10% उत्तरदाताओ ने बताया की वो हार्डवेयर का व्यवसाय का करते हैं|
6. 10% उत्तरदाताओ ने बताया की वो ज्वेलर्स का व्यवसाय करते हैं|
7. 5% उत्तरदाताओ ने बताया की वो अन्य (स्टेशनरी) व्यवसाय करते हैं|

व्याख्या

कोविड 19 के असंगठित क्षेत्र पर हुवे प्रभाव को जानने के लिए डाटा को सग्रहित किया गया , जिसके तहत असंगठित क्षेत्र से जुड़े हुवे विभिन्न व्यवसायी वर्ग जिसमे होटल से जुड़े हुवे सेलून की शॉप से जुड़े , कपडे का व्यवसाय करने वाले व्यापारियों , इलेक्ट्रोनिक व्यापारियों से संबंधित व्यापार प्रतिष्ठानों , ज्वेलर्स से जुड़े हुवे व्यवसाय वर्ग तथा अन्य असंगठित क्षेत्र से जुड़े हुवे डाटा का विश्लेष्ण किया जिसमे अनेक रूप से उनका आकडा प्राप्त हुवा|

1. कोविड 19 के कारण असंगठित क्षेत्र से जुड़े हुवे व्यवसाय मे प्रभावित स्तिथि



क्या आपका व्यवसाय कोविड 19 से प्रभावित हुवा ?	उत्तरदाता
हां	100%
नहीं	0%

सारणी संख्या-2

सारणी विश्लेषण

1.100% उत्तरदातोओ ने बताया कि कोविड के कारण उनके व्यवसाय पर प्रभाव पड़ा है|

2.0% उत्तरदातोओ ने बताया कि कोविड के कारण उनके व्यवसाय पर कोई प्रभाव नही पड़ा है|

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे व्यापारियो ने सभी ने बताया की कोविड 19 के कारण उनके व्यवसाय पर प्रभाव पड़ा हे तथा उसके कारण उनका बहुत नुकसान हुवा हैं।

2. कोविड से प्रभावित असंगठित क्षेत्र मे किस तरह का नुकसान ज्यादा हुवा

नुकसान के प्रभाव	उत्तरदाता
आर्थिक	90%
मानसिक	25%
मानवीय	35%
अन्य	10%

सारणी संख्या-3

सारणी विश्लेषण

1. 90% उत्तरदाताओ ने बताया की कोविड के कारण आर्थिक नुकसान हुवा है।
2. 25% उत्तरदाताओ ने बताया की कोविड के कारण मानसिक नुकसान हुवा है।
3. 35% उत्तरदाताओ ने बताया की कोविड के कारण मानवीय नुकसान हुवा है।
4. 10% उत्तरदाताओ ने बताया की कोविड के कारण अन्य नुकसान हुवा है।

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे व्यापारियो ने सभी ने बताया की कोविड 19 के कारण उनके व्यवसाय पर आर्थिक रूप से, मानसिक रूप, ओर मानवीय रूप प्रभाव अधिक पड़ा हे तथा इसके कारण उनके स्थिति मे परिवर्तन आया हैं।

3. कोविड 19 के दौरान असंगठित क्षेत्र मे सरकार द्वारा सहायता

सरकार द्वारा कोविड 19 के दौरान सहायता	उत्तरदाता
हां	25%
नही	75%

सारणी संख्या-4

सारणी विश्लेषण

1. 25% उत्तरदातोओ ने बताया कि कोविड के दौरान सरकार ने सहायता की हैं|

2. 75% उत्तरदातोओ ने बताया कि कोविड के दौरान सरकार ने कोई सहायता नही की हैं|

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे व्यवसाय वर्ग मेसे 75% व्यवसाय वर्ग ने बताया की सरकार की तरफ से बताया कोई सहायता नही मिली लेकिन 25% व्यवसाय वर्ग ने बताया सरकार ने कोविड के दौरान सरकार ने सहायता की जिसमे मेडिकल सुविधा , वेक्सीन मे सहयोग आदि किया गया असंगठित क्षेत्र से जुड़े हुवे व्यवसाय वर्ग ने बताया था, वह सरकार से चाहते थे कि सरकार को असंगठित क्षेत्र से जुड़े हुवे व्यवसाय व्यवस्था में आर्थिक सम्बल की पहल करनी चाहिए ,इस क्षेत्र से जुड़े हुए व्यापारियों के लिए आर्थिक पैकेज की घोषणा करनी चाहिए ,सरकार को होटल, रेस्ट्रोरेंट व अन्य असंगठित क्षेत्र से जुड़े हुए व्यवसाय के ऊपर लगने वाले सरकारी टेक्स में कमी लानी चाहिए तथा सरकार को बैंकों के माध्यम से ऋण उपलब्ध कराने के लिए नियमो में सरलता लानी चाहिए|

4. असंगठित क्षेत्र मे कोविड -19 के दौरान गैर सरकारी संगठनो के द्वारा सहायता

गैर सरकारी संगठनो के द्वारा सहायता	उत्तरदाता
हां	10%
नहीं	90%

सारणी संख्या-5

सारणी विश्लेषण

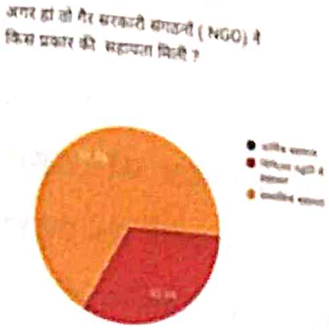
1.10% उत्तरदातोओ ने बताया कि कोविड के दौरान गैर सरकारी संगठनो ने सहायता की हैं|

2.90% उत्तरदातोओ ने बताया कि कोविड के दौरान गैर सरकारी संगठनो ने कोई सहायता नही की हैं|

व्याख्या

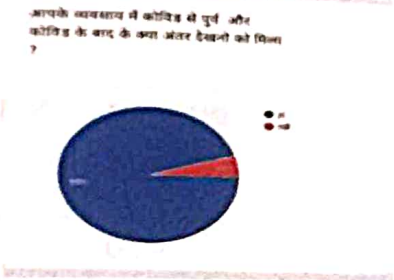
असंगठित क्षेत्र से जुड़े हुवे व्यवसायी वर्ग मेसे 90% प्रतिशत ने बताया कि कोविड-19 के दौरान गैर सरकारी संगठनों ने कोई भी मदद नही ,10% प्रतिशत व्यवसाय वर्ग ने बताया कि कोविड-19 के दौरान गैर सरकारी संगठनों ने मदद की, गैर सरकारी संगठनों ने मदद के तौर पर असंगठित क्षेत्र में चिकित्सा सुविधा एवम सामाजिक सरोकार के रूप में सहयोग किया |

5. असंगठित क्षेत्र मे कोविड -19 के दौरान गैर सरकारी संगठनो के द्वारा सहायता



गैर सरकारी संगठनों ने मदद के तौर पर असंगठित क्षेत्र में चिकित्सा सुविधा एवम सामाजिक सरोकार के रूप में सहयोग किया ,अनेक जगह सामाजिक समरता का अनुरूप लोगो नवाचार की पहल लाई|

6. कोविड के बाद आपके व्यवसाय मे कोई परिवर्तन देखनो को मिला क्या?



कोविड के बाद व्यवसाय परिवर्तन	उत्तरदाता
हां	95%
नहीं	5%

सारणी संख्या-6

सारणी विश्लेषण

1. 95% उत्तरदातोओ ने बताया कि कोविड के बाद व्यवसाय मे परिवर्तन हुवा हैं|

2. 5% उत्तरदातोओ ने बताया कि कोविड के बाद व्यवसाय मे परिवर्तन नही हुवा|

व्याख्या

असंगठित क्षेत्र से जुड़े हुए 95% व्यवसाय वर्ग ने बताया कि कोविड के बाद परिवर्तन देखनो को मिला है और 5% व्यवसाय वर्ग ने बताया कि कोविड-19 के बाद कोई भी परिवर्तन देखनो को नही मिला है , 95% व्यवसाय वर्ग ने बताया कि कोविड के कारण बाजार की गति में मंदी आ गई है , वस्तुओं की कीमतों में बढ़ाव देखनो को मिला है ,असंगठित क्षेत्र से जुड़े हुए कर्मचारियों के वेतन में कमी देखनो को मिली है अर्थव्यवस्था में उतार देखनो को मिला है ,अनेक व्यापारी वर्ग के द्वारा नुकसान के कारण कर्ज लेने से कर्ज में ढलने के आसार देखनो को मिले हैं और बाजार की व्यवस्था में ठहराव की स्थिति देखनो को मिली है, व्यवसाय परिवर्तन के रूप कीमतों मे बढोतरी एवं वस्तुओ की गुणवत्ता मे कमी आई हैं|

7. असंगठित क्षेत्र से जुडी वस्तुओं की कीमतों मे कोविड 19 के बाद उनकी दर मे बदलाव

वस्तुओं की कीमतों की दर मे बदलाव	उत्तरदाता
सस्ती दर	00%
महंगी दर	90%
ओसत	10%

सारणी संख्या-7

सारणी विश्लेषण

1.90% उत्तरदाताओ ने बताया कोविड के बाद वस्तुओ की दर महंगी हो गई हैं|

2. 10% उत्तरदाताओ ने बताया कोविड के बाद वस्तुओ की दर ओसत हो गई है|

व्याख्या

असंगठित क्षेत्र से जुड़े 90% व्यवसाय वर्ग ने बताया है कि कोविड के बाद वस्तुओं की कीमतों की दर महंगी हुई है तथा 10% व्यवसाय वर्ग ने बताया कि कोविड के बाद कीमतों में कोई भी परिवर्तन नही आया, क्योंकि कोविड-19 के लोकडाउन एवं बाजार के बंद होने के कारण से अर्थव्यवस्था मे एक बंद का रूप देखनो को मिला, जिसके कारण से वस्तुओ की जमाखोरी होने लगी तथा अर्थव्यवस्था मे वस्तुओ को कीमतों को लाकर उतार-चढाव के कारण व्यवसाय मे भी एक परिवर्तन आया हैं तथा व्यवसाय चलने की गति भी सामान्य चल रही हैं।

8. असंगठित क्षेत्र मे वर्तमान मे व्यवसाय की स्थिति

असंगठित क्षेत्र मे वर्तमान व्यवसाय की स्थिति	उत्तरदाता
अच्छा नही	75%
औसत	25%
पता नही	0%

सारणी संख्या-8

सारणी विश्लेषण

1.75% उत्तरदाताओ ने बताया कोविड के बाद व्यवसाय अच्छा नही चल रहा हैं।

2. 25% उत्तरदाताओ ने बताया कोविड के बाद व्यवसाय अच्छा नही चल रहा हैं।

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे 75% व्यवसाय वर्ग ने बताया कि कोविड 19 के बाद वर्तमान में व्यवसाय औसत रूप से चल रहा है एवम 25% व्यवसाय वर्ग ने बताया कि व्यवसाय अच्छा नही चल रहा है, क्योकि बाजार मे लोगो के पास पूर्व की तरह स्थिति आने मे समय लगेगा ओर अर्थव्यवस्था समय के साथ अब वापस एक अच्छे रूप मे आगे जा रही।

कर्मचारी वर्ग

कोविड-19 का असंगठित क्षेत्र पर प्रभाव के तहत अनुसन्धान के दौरान विभिन्न असंगठित क्षेत्र से जुड़े हुवे कर्मचारी वर्ग से बात करके अनुसन्धान किया गया

कर्मचारी वर्ग

व्यवसायी वर्ग	प्रतिशत
होटल & रेस्ट्रोरेन्ट	15%
इलेक्ट्रोनिक	10%
कपडे का मिल	5%
कपड़े व जूतों शोरुम	20%
ओघोगिक क्षेत्र	10%
ज्वेलर्स	10%
सिलाई , आर्ट एंड कल्चर	5%
इवेंट मैनेजमेंट एंड टेंट डेकोरेशन	10%
सेलून	10%
अन्य	5%

सारणी संख्या-9

सारणी विश्लेषण

1. 5% उत्तरदातोओ ने बताया की वो होटल व रेस्ट्रोरेंट के व्यवसाय में कार्य करते हैं|
2. 5% उत्तरदातोओ ने बताया की वो सेलून के व्यवसाय में कार्य करते हैं|

3.10% उत्तरदातोओ ने बताया की वो ईलेक्ट्रोनिक के व्यवसाय में कार्य करते हैं|

4.5% उत्तरदातोओ ने बताया की वो कपड़े के मिल के व्यवसाय में कार्य करते हैं|

5.20% उत्तरदातोओ ने बताया की वो कपड़े व जूतों के शोरूम के व्यवसाय में कार्य करते हैं|

6.10% उत्तरदातोओ ने बताया की वो औद्योगिक क्षेत्र के व्यवसाय में कार्य करते हैं|

7.10% उत्तरदातोओ ने बताया की वो ज्वेलर्स के व्यवसाय में कार्य करते हैं|

8. 5% उत्तरदातोओ ने बताया की वो सिलाई व आर्ट एंड कल्चर के व्यवसाय में कार्य करते हैं|

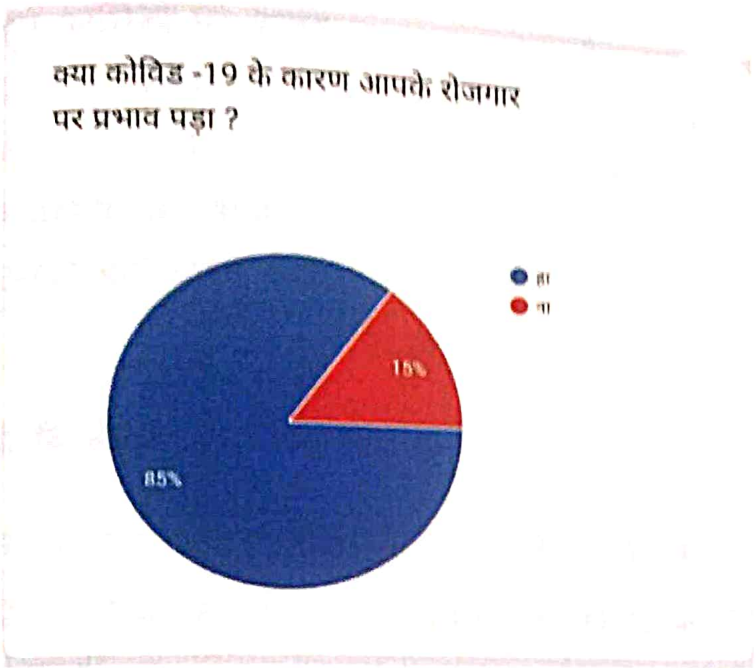
9.10% उत्तरदातोओ ने बताया की वो इवेंट मैनेजमेंट व टेंट डेकोरेशन के व्यवसाय में कार्य करते हैं|

10. 5% उत्तरदातोओ ने बताया की वो अन्य जैसे स्टेशनरी व्यवसाय में कार्य करते हैं|

व्याख्या

कोविड 19 के असंगठित क्षेत्र पर हुवे प्रभाव को जानने के लिए डाटा को सग्रहित किया गया , जिसके तहत असंगठित क्षेत्र से जुड़े हुवे विभिन्न कर्मचारी वर्ग जिसमे होटल से जुड़े हुवे सेलून की शॉप से जुड़े कर्मचारी , कपडे के मिल मे कार्य करने वाले कर्मचारी , इलेक्ट्रोनिक से संबंधित व्यापार प्रतिष्ठानों मे काम करने वाले कर्मचारी, ज्वेलर्स से जुड़े हुवे कर्मचारी वर्ग तथा अन्य असंगठित क्षेत्र से जुड़े हुवे डाटा का विश्लेष्ण किया जिसमे अनेक रूप से उनका आकडा प्राप्त हुवा|

10 कोविड के कारण उनके रोजगार पर प्रभाव



रोजगार पर प्रभाव	उत्तरदाता
हां	85%
नहीं	15%

सारणी संख्या-10

सारणी विश्लेषण

1.85% उत्तरदातोओ ने बताया कि कोविड के कारण उनके रोजगार पर प्रभाव पड़ा है|

2.15% उत्तरदातोओ ने बताया कि कोविड के कारण उनके रोजगार पर कोई प्रभाव नही पड़ा है|

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे कर्मचारी वर्ग ने बताया की कोविड 19 के कारण उनके रोजगार पर प्रभाव पड़ा हे तथा उसके कारण उनका बहुत नुकसान हुवा हैं! अनेक जनों की जॉब छुट गई थी|

3. कोविड के कारण असंगठित क्षेत्र से जुड़े हुवे कार्मिको पर प्रभाव

कोविड के कारण असंगठित क्षेत्र से जुड़े हुवे कार्मिको पर प्रभाव	उत्तरदाता
जॉब पर प्रभाव	11.8%
वेतन में कमी	47.1%
स्वास्थ्य पर प्रभाव	52.9%
उनकी पारिवारिक स्थिति प्रभावित	23.5%

सारणी संख्या-11

सारणी विश्लेषण

1. 11.8% उत्तरदाताओं ने बताया कि कोविड के दौरान उनकी जॉब छूट गई थी|
2. 47.1% उत्तरदाताओं ने बताया कि कोविड के दौरान उनके वेतन में कमी हो गई थी|
3. 52.9% उत्ततदाताओ ने बताया कि कोविड के दौरान उनके स्वास्थ्य पर प्रभाव पड़ा|
4. 23.5% उत्ततदाताओ ने बताया को कोविड के कारण उनकी पारिवारिक स्थिति प्रभावित हुई है|

व्याख्या

कोविड के दौरान असंगठित क्षेत्र में काम करने वाले लोगो को अनेक समस्याओं से जूझना पड़ा ,अनेक लोगो की कोविड के कारण जॉब भी छूट गई थी ,क्योंकि बड़े-बड़े शोरूम व शॉप पर काम करने वाले एवम टेंट डेकोरेशन व इवेंट जैसे वर्क से जुड़े हुवे कमर्चारीयो की जॉब कोविड के कारण लोकडाउन लगने से छूट गई थी ,तथा अनेक लोगो को कोविड के पोसिटिव होने से उनके स्वास्थ्य पर भी एक गहरा असर पड़ा था तथा इसके कारण उनकी पारिवारिक स्थिति में भी गहरा असर हुवा था तथा ज्वेलर्स, ईलेक्ट्रोनिक जैसे व्यवसाय से जुड़े हुवे लोगो के वेतन में कमी हो गई थी अनेक जगह लोगो को आधा वेतन ही दिया जाने लगा था जिससे उनकी आर्थिक रूप पारिवारिक स्थिति में परिवर्तन तथा उसपर प्रभाव पड़ा था|

4. कोविड के दौरान असंगठित क्षेत्र से जुड़े हुवे कार्मिको को उनके व्यवसाय प्रमुख से मदद

व्यवसाय प्रमुख से सहायता	उत्तरदाता
हां	85%
नहीं	15%

सारणी संख्या-12

सारणी विश्लेषण

1. 85% उत्तरदातोओ ने बताया कि कोविड के दौरान उनके मालिक के द्वारा उनको सहायता मिली थी|

2.15% उत्तरदातोओ ने बताया कि कोविड के दौरान उनके मालिक के द्वारा उनको सहायता नही मिली थी|

व्याख्या

कोविड के दौरान असंगठित क्षेत्र में व्यवस्था में परिवर्तन देखनो को मिला अनेक जगह लोगो को जॉब छूटने के कारण उनके व्यवसाय प्रमुख से सहायता नही मिल पाई थी लेकिन अनेक जगह ये भी देखनो को मिला कि व्यवसाय प्रमुख के द्वारा उनके यहा कार्य करने वाले कार्मिकों को आर्थिक रूप से व परिवहन के लिए भी उनको सहायता दी गई थी|

5. कोविड के दौरान असंगठित क्षेत्र से जुड़े हुवे कार्मिको को उनके व्यवसाय प्रमुख से मदद

व्यवसाय प्रमुख द्वारा सहायता	उत्तरदाता
आर्थिक सहायता	88.2%
परिवहन में सहायता	58.8%
मेडिकल सुविधा में सहायता	52.9%

सारणी संख्या-13

सारणी विश्लेषण

1.88.2% उत्तरदाताओ ने बताया कि कोविड के दौरान उनके व्यवसाय प्रमुख द्वारा आर्थिक सहायता मिली थी|

2. 58.8% उत्तरदाताओ ने बताया कि कोविड के दौरान उनके व्यवसाय प्रमुख द्वारा परिवहन में सहायता मिली थी|

3. 52.9% उत्तरदाताओ ने बताया कि कोविड के दौरान उनके व्यवसाय प्रमुख द्वारा मेडिकल सुविधा में सहायता मिली थी|

व्याख्या

कोविड के दौरान असंगठित क्षेत्र से जुड़े हुवे कर्मचारियों को उनके व्यवसाय प्रमुख के द्वारा सहायता प्रदान की गई थी, उनके द्वारा उनके कार्मिकों को आर्थिक रूप से सहयोग दिया गया था , उनके मेडिकल सुविधा में भी उनका सहयोग तथा उनके आने-जाने में भी उनके व्यवसाय प्रमुख के द्वारा सहयोग किया गया था|

6. कोविड 19 के दौरान असंगठित क्षेत्र मे सरकार द्वारा सहायता

सरकार द्वारा कोविड 19 के दौरान सहायता	उत्तरदाता
हां	85%
नही	15%

सारणी संख्या-14

सारणी विश्लेषण

1. 85% उत्तरदातोओ ने बताया कि कोविड के दौरान सरकार ने सहायता की हैं|

2. 25% उत्तरदातोओ ने बताया कि कोविड के दौरान सरकार ने कोई सहायता नही की हैं|

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे व्यवसाय वर्ग मेसे 15% कर्मचारी वर्ग ने बताया की सरकार की तरफ से बताया कोई सहायता नही मिली ,लेकिन 85% कर्मचारी वर्ग ने बताया सरकार ने कोविड के

दौरान सरकार ने सहायता की जिसमे मेडिकल सुविधा , परिवहन मे , स्वास्थ्य सुविधा तथा वेक्सीन मे सहयोग आदि किया गया असंगठित क्षेत्र से जुड़े हुवे कर्मचारी वर्ग ने बताया था, वह सरकार से चाहते थे कि सरकार को असंगठित क्षेत्र से जुड़े हुवे कर्मचारी व्यवस्था में और अधिक आर्थिक सम्बल की पहल करनी चाहिए|

7. सरकार द्वारा सहायता

सरकार द्वारा सहायता	उत्तरदाता
आर्थिक सहायता	0%
रोजगार मे सहायता	5.9%
परिवहन मे सहायता	35.3%
स्वास्थ्य सुविधा मे सहायता	100%

सारणी संख्या -15

सारणी विश्लेषण

1.0% उत्तरदाताओ ने बताया कि कोविड के दौरान सरकार द्वारा आर्थिक सहायता मिली थी|

2. 35.3% उत्तरदाताओ ने बताया कि कोविड के दौरान सरकार के द्वारा परिवहन में सहायता मिली थी|

3. 5.9% उत्तरदाताओ ने बताया कि कोविड के दौरान सरकार के द्वारा रोजगार मे सहायता मिली थी|

4.100% उत्तरदाताओ ने बताया कि कोविड के दौरान सरकार के द्वारा स्वास्थ्य सुविधा में सहायता मिली थी|

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे व्यवसाय वर्ग मेसे 15% कर्मचारी वर्ग ने बताया की सरकार की तरफ से बताया कोई सहायता नही मिली ,लेकिन 85% कर्मचारी वर्ग ने बताया सरकार ने कोविड के दौरान सरकार ने सहायता की जिसमे मेडिकल सुविधा , परिवहन मे , स्वास्थ्य सुविधा तथा वेक्सीन मे सहयोग आदि किया गया|

8. असंगठित क्षेत्र मे कोविड -19 के दौरान गैर सरकारी संगठनो के द्वारा सहायता

गैर सरकारी संगठनो के द्वारा सहायता	उत्तरदाता
हां	55%
नहीं	45%

सारणी संख्या-16

सारणी विश्लेषण

1.55% उत्तरदातोओ ने बताया कि कोविड के दौरान गैर सरकारी संगठनो ने सहायता की हैं|

2.45% उत्तरदातोओ ने बताया कि कोविड के दौरान गैर सरकारी संगठनो ने कोई सहायता नही की हैं|

व्याख्या

असंगठित क्षेत्र से जुड़े हुवे कर्मचारी वर्ग मेसे 45% प्रतिशत ने बताया कि कोविड-19 के दौरान गैर सरकारी संगठनों ने कोई भी मदद नही ,55% प्रतिशत व्यवसाय वर्ग ने बताया कि कोविड-19 के दौरान गैर सरकारी संगठनों ने मदद की , गैर सरकारी संगठनों ने मदद के तौर पर असंगठित क्षेत्र में चिकित्सा सुविधा एवम के रूप में सहयोग किया|

9. गैर सरकारी संगठनों के द्वारा कोविड के दौरान सहायता

गैर सरकारी संगठनों द्वारा सहायता	उत्तरदाता
मेडिकल	100%
रोजगार	0%
अन्य	0%

सारणी संख्या -17

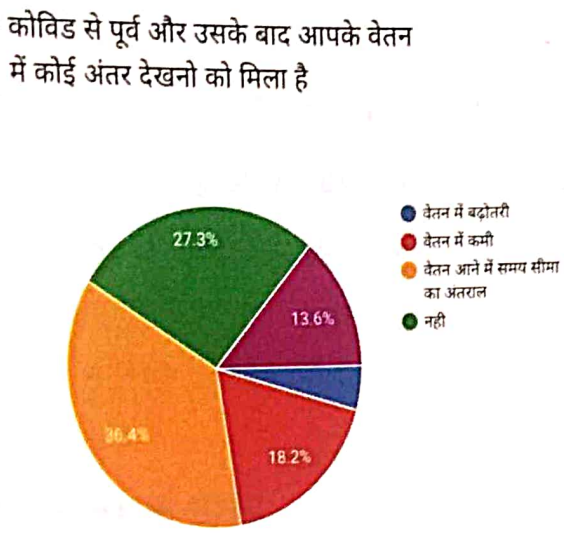
सारणी विश्लेषण

1. 100 % उत्तरदाताओ ने बताया गैर सरकारी संगठनो के द्वारा कोविड के दौरान मेडिकल मे सहायता प्रदान की गई|
2. 0 % उत्तरदाताओ ने बताया गैर सरकारी संगठनो के द्वारा कोविड के दौरान रोजगार मे सहायता प्रदान की गई|

व्याख्या

गैर सरकारी संगठनों ने मदद के तौर पर असंगठित क्षेत्र में चिकित्सा सुविधा एवम सामाजिक सरोकार के रूप में सहयोग किया ,अनेक जगह सामाजिक समरता का अनुरूप लोगो नवाचार की पहल लाई तथा लोगो मे जागरूकता फेलाने मे भी गैर सरकारी संगठनों के द्वारा सहायता की गई थी|

10. कोविड के पूर्व व उसके बाद वेतन मे अंतर



वेतन मे अंतर कोविड के पूर्व व बाद मे	उत्तरदाता
वेतन मे बढ़ोतरी	13.6%
वेतन मे कमी	18.2%
वेतन आने के समय सीमा मे अन्तराल	36.4%
नही	27.6%

सारणी संख्या-18

सारणी विश्लेषण

1. 13.6% उत्तरदाताओ ने बताया की कोविड से पूर्व व उसके बाद की स्थिति के अनुसार उनके वेतन मे बढोतरी हुई हैं।
2. 18.2% उत्तरदाताओ ने बताया की कोविड से पूर्व व उसके बाद की स्थिति के अनुसार उनके वेतन के आने मे समय सीमा बड़ी हैं।
3. 36.4% उत्तरदाताओ ने बताया की कोविड से पूर्व व उसके बाद की स्थिति के अनुसार उनके वेतन मे कमी हुई हैं।
4. 27.6% उत्तरदाताओ ने बताया की कोविड से पूर्व व उसके बाद की स्थिति के अनुसार उनके वेतन पूर्व की तरह ही हैं।

व्याख्या

असंगठित क्षेत्र से जुड़े कर्मचारी वर्ग ने बताया की कोविड के बाद उनके वेतन मे परिवर्तन देखनो को को मिला हैं, अनेक कर्मचारीयो ने बताया की कोविड के बाद उनके वेतन मे कमी हो गई थी एवं कुछ कर्मचारियों ने बताया की कोविड के कारण उनके वेतन आने मे बहुत समय लगने लगा हैं जिससे उनकी पारिवारिक स्तिथि मे समस्या भी आई हैं तथा उनके आय मे परिवर्तन आया हैं|

11.कोविड के बाद नये रोजगार मे प्रभाव

कोविड के बाद नये रोजगार मे प्रभाव	उत्तरदाता
नए रोजगार मे बढ़ोतरी	21.7%
रोजगार मे कमी	39.1%
पहले जेसी स्थिती	17.4%
पता नही	21.7%

सारणी संख्या - 19

सारणी विश्लेष्ण

1. 21.7% उत्तरदाताओ ने बताया कोविड के बाद वर्तमान मे असंगठित क्षेत्र मे नये रोजगार मे बढोतरी हुई हैं!
2. 21.7% उत्तरदाताओ ने बताया कोविड के बाद वर्तमान मे असंगठित क्षेत्र मे नये रोजगार मे कमी हुई हैं!
3. 21.7% उत्तरदाताओ ने बताया कोविड के बाद वर्तमान मे असंगठित क्षेत्र मे नये पहले जेसी स्थिती हुई हैं!
4. 21.7% उत्तरदाताओ ने बताया कोविड के बाद वर्तमान मे असंगठित क्षेत्र मे नये रोजगार के बारे मे पता नही हैं!

व्याख्या

कोविड महामारी के बाद असंगठित क्षेत्र मे नए रोजगार मे बढोतरी भी हुई हैं क्योकि अनेक समय लोकडाउन के रहने के कारण जब कार्य शुरू हुवे तो नए रोजगार मे भी परिवर्तन आया हैं कई जगह नये रोजगार भी बड़े हैं तो कही जहा छोटे क्षेत्र हे वहा पर रोजगार मे कमी भी आई हैं, साथ ही कुछ कर्मचारी वर्ग ने बताया की असंगठित क्षेत्र मे पूर्व की तरह ही रोजगार की स्थिति हैं , इससे कह सकते हैं कोविड के कारण रोजगार की स्थिति मे बड़ा परिवर्तन देखनो को मिला हैं!

अध्याय 5. निष्कर्ष

निष्कर्ष में, हम देख सकते हैं कि कोविड महामारी ने असंगठित क्षेत्र पर महत्वपूर्ण प्रभाव डाला है। जो की निम्न प्रभाव इस प्रकार हैं :-

1. कोविड महामारी के कारण असंगठित क्षेत्र मे अनेक नुकसान हुवा हैं|
2. कोविड के कारण जब लोकडाउन लगा तब अनेक समय तक अनेक असंगठित क्षेत्र से जुड़े हुवे व्यावसायिक इकाईया बंद रही जिसके कारण अनेक रूप से अर्थव्यवस्था मे प्रभाव पड़ा तथा आर्थिक रूप से व्यापार वर्ग मे नुकसान हुवा|
3. कोविड के कारण जब लोकडाउन लगा तब अनेक समय तक अनेक असंगठित क्षेत्र से जुड़े हुवे व्यावसायिक इकाईया बंद रही जिसके कारण इन क्षेत्रो मे कार्य करने वाले कार्मिको को अनेक समस्याओं से ग्रसित होना पड़ा तथा उनको आर्थिक नुकसान उठाना पड़ा|
4. असंगठित क्षेत्र से जुड़े व्यवसाय के लिए सरकार को ऋण सुविधा के लिये पहल करनी होगी|
5. कोविड जेसी महामारी के कारण अनेक रूप से असंगठित क्षेत्र से जुड़े हुवे रोजगार मे कमी आई हैं|
6. कोविड जेसी महामारी के कारण अनेक रूप से असंगठित क्षेत्र से जुड़े हुवे कार्मिको के वेतन मे कमी आई हैं|
7. कोविड जेसी महामारी के कारण अनेक रूप से असंगठित क्षेत्र से जुड़े हुवे कार्मिको के वेतन के आने मे समय सीमा का अन्तराल बड़ा हैं|
8. कोविड जेसी महामारी के कारण अनेक रूप से असंगठित क्षेत्र से जुड़े हुवे वस्तुओं के कीमत मे बदलाव आया है, इसके कारण इनकी दर महंगी हुई हैं|
9. कोविड के दौरान सरकार ने असंगठित क्षेत्र वैक्सीन व कार्मिको के परिवहन मे सहयोग किया हैं|
10. कोविड के दौरान गैर सरकारी संगठनो के द्वारा असंगठित क्षेत्र स्वास्थ्य सुविधा को लेकर सहायता की गई हैं|

अध्याय 6. सुझाव

असंगठित क्षेत्र से जुड़े विश्लेष्ण के दौरान निम्न सुझाव प्राप्त हुवे

1. सरकार को असंगठित से जुड़े व्यवसाय के लिए आर्थिक पैकेज की घोषणा करनी चाइये :-कोविड के दौरान अनेक समय तक व्यापार बंद रहा तथा लोकडाउन के कारण असंगठित क्षेत्र से जुडी इकाईयों मे अनेक समय बंद के कारण नुकसान हुवा, इस कारण से इस व्यवसाय को वापस उभरने मे समय लगेगा , सरकार को इनके व्यवसाय मे आर्थिक रूप से संबल के लिए आर्थिक पैकेज की घोषणा करनी चाइये|

2. असंगठित क्षेत्र से जुड़े हुवे कर्मचारी वर्ग के लिए आर्थिक सहायता के लिए आर्थिक संबल के लिए कार्य करना चाइये :- कोविड के दौरान अनेक समय तक व्यापार बंद रहा तथा लोकडाउन के कारण असंगठित क्षेत्र से जुडी इकाईयों मे अनेक समय बंद रहा, इस कारण से असंगठित क्षेत्र से जुड़े कार्मिको को अनेक रूप से आर्थिक समस्या से गुजरना पड़ा, सरकार को इन कार्मिको की पहचान करके एक राशि की घोषणा अनुदान के रूप मे करनी चाहिये|

3. असंगठित क्षेत्र से जुड़े गैर सरकारी संगठनों की जाच होनी चाइये की वह असंगठित क्षेत्र से जुड़े हुवे हर क्षेत्र तक उसकी पहुच हैं या नही :- अनेक जगह या क्षेत्रो देखा गया हैं असंगठित क्षेत्र से जुड़े इकाईयो मे गैर सरकारी संगठनों के द्वारा एक अच्छी मदद नही की गई, जहा मदद की गई वहा सिर्फ मेडिकल सहायता एवं वैक्सीन लगवाने मे सहयोग किया गया , सरकार को गैर सरकारी संगठनों की जमीनी स्तर पर जाच करके उनका परिणाम निकालना चाइये जिससे गैर सरकारी संगठनों को अपने कार्य के प्रति

इमानदारी से कार्य करना पड़े तथा जनता हित मे आने वाले अनुदान को सही तरीके से जनता के लिए जनता के द्वारा उपयोग किया जा सके|

4. भविष्य मे कोविड जैसी महामारी से निपटने के लिए तैयारी पहले से करनी चाइये:-कोविड जेसे बड़ी महामारी के कारण देश मे अर्थव्यवस्था मे एक बड़ी समस्या देखनो को मिली , अनेक जगह इसके कारण लोग स्वास्थ्य रूप से भी परेशान हुवे, साथ अनेक समस्याओ से लोगो को जूझना पड़ा, सरकार को इस तरह की महामारी को देखते हुवे भविष्य मे इसकी पहले से तेयारी करनी होगी जिससे अचानक आने वाली ऐसी महामारी से निपटा जा सके तथा उससे पूर्ण सुविधाओ के साथ उसको हराया जा सके तथा इससे अर्थव्यवस्था को नुकसान से बचाया जा सके|

5. सरकार को असंगठित क्षेत्र से जुड़े व्यवसाय के लिए आर्थिक तौर पर मदद के लिए ऋण के नियमो मे सरलता लानी चाइये :- सरकार असंगठित क्षेत्र से जुड़े हुवे व्यवसाय को फिर पूर्व की तरह अच्छी स्थिति मे लाने के लिए ऋण नियमो मे थोड़ी सरलता लानी होगी , जिससे असंगठित क्षेत्र से जुड़े व्यापारी वर्ग आसानी से ऋण को आर्थिक सहायता के रूप मे लेकर अपने व्यवसाय मे निवेश कर सके जिससे व्यवसाय मे एक अच्छी स्थिति आ सके तथा वह अपने व्यवसाय को अच्छे रूप मे कर सके|

6. असंगठित क्षेत्र से जुड़े हुवे व्यवसाय मे नए रोजगार को लाने के लिए कार्य करना;- सरकार असंगठित क्षेत्र के कोर्पोरेट व्यवस्था के साथ मिलकर बेरोजगार हो चुके लोगो के लिए नए रोजगार के लिए कार्य करना चाइये, जिससे लोगो को अच्छी मदद मिल सके तथा व बेरोजगार ना होकर किसी ना किसी व्यवसाय से जुड़कर अपने आर्थिक स्थिति को अच्छी कर सके|

अनुसूची

1. कोविड -19 का असंगठित क्षेत्र पर प्रभाव (व्यवसायी वर्ग)

1. आपका नाम ?
2. आप कौनसा व्यवसाय करते हैं ?
3. कोविड-19 के कारण आपके व्यवसाय पर कोई असर पड़ा है क्या?
4. कोविड -19 के दौरान आपको सरकार की तरफ से कोई सहायता मिली क्या?
5. अगर हा, सरकार ने किस प्रकार की सहायता आपको प्रदान की?
6. अगर नही, तो आप सरकार से किस प्रकार की सहायता और चाहते हैं ?
7. क्या आपको गैर सरकारी संगठनों "NGO" की तरफ से कोई सहायता मिली ?
8. आपके व्यवसाय में कोविड से पुर्व और कोविड के बाद के क्या अंतर देखनो को मिला ?
9. अगर हा , तो किस प्रकार से अंतर देखनो को मिला है ?
10. कोविड के बाद वस्तुओं के कीमतों में किस प्रकार का बदलाव देखनो को मिला है ?
11. वर्तमान में आपका व्यवसाय किस प्रकार चल रहा है ?
12. क्या आप सरकार एवम गैर सरकारी संगठनों को कोई सुझाव देना चाएँगे ?

2. कोविड 19 का असंगठित क्षेत्र पर प्रभाव (कर्मचारी वर्ग)

1. आपका नाम ?
2. आप कोनसे व्यवसाय में कार्य करते हैं ?
3. क्या कोविड -19 के कारण आपके रोजगार पर प्रभाव पड़ा ?
4. अगर हां तो किस प्रकार का प्रभाव पड़ा ?
5. कोविड -19 के दौरान आपको आपके मालिक से कोई सहायता मिली क्या ?
6. अगर हां तो किस प्रकार की सहायता मिली ?
7. क्या आपको कोविड -19 के दौरान सरकार के द्वारा सहायता मिली ?
8. अगर हां तो कौनसी सहायता मिली ?
9. क्या आपको कोविड -19 के दौरान गैर सरकारी संगठन "NGO" से कोई सहायता मिली?
10. अगर हां तो किस प्रकार की सहायता मिली ?
11. कोविड से पूर्व और उसके बाद आपके वेतन में कोई अंतर देखनो को मिला है ?
12. कोविड 19 के बाद नए रोजगार में क्या स्थिति हुई है ?
13. कोई सुझाव ?

सन्दर्भ सूची

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"उदयपुर की कच्ची बस्तियों का एक सामाजिक-आर्थिक विश्लेषण"

एम.ए. अर्थशास्त्र हेतु

प्रस्तुत लघु शोध प्रबंध

शोधकर्ता

प्रियंका तलरेजा

शोध निर्देशिका

डॉ. नेहा पालीवाल

सहायक आचार्य एवं प्रभारी

अर्थशास्त्र विभाग

सामाजिक विज्ञान संकाय

मोहनलाल सुखाड़िया विश्वविद्यालय, उदयपुर

2019

"उदयपुर की कच्ची बस्तियों का एक सामाजिक-आर्थिक विश्लेषण"

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प्रियंका तलरेजा

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अर्थशास्त्र विभाग

सामाजिक विज्ञान संकाय

मोहनलाल सुखाड़िया विश्वविद्यालय, उदयपुर

2019

अर्थशास्त्र विभाग

सामाजिक विज्ञान एवं मानविकी महाविद्यालय

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प्रमाण-पत्र

प्रमाणित किया जाता है कि प्रियंका तलरेजा ने यह लघु शोध प्रबंध **"उदयपुर की कच्ची बस्तियों का एक सामाजिक-आर्थिक विश्लेषण"** मेरे निर्देशन एवं पर्यवेक्षण में किया है| इस कार्य को मैं एम.ए. चतुर्थ सेमेस्टर के द्वितीय प्रश्न पत्र "Project Work- Dissertation" (**M4ECO02-CT-20**) के परीक्षार्थ प्रस्तुत करने की अनुमति प्रदान करती हूँ।

दिनांक : 1 October 2019

पर्यवेक्षक

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शपथ-पत्र

मैं शपथ पूर्वक घोषणा करती हूँ कि प्रस्तुत शोध **"उदयपुर की कच्ची बस्तियों का एक सामाजिक-आर्थिक विश्लेषण"** मेरे द्वारा किया गया मौलिक लघु शोध कार्य है, जो मैंने **डॉ. नेहा पालीवाल,** सह आचार्य एवं प्रभारी, अर्थशास्त्र विभाग के निर्देशन में अर्थशास्त्र में एम.ए. चतुर्थ सेमेस्टर के द्वितीय प्रश्न पत्र "Project Work- Dissertation" (**M4ECO02-CT-20**) के पाठ्यक्रम की पूर्ति हेतु निष्पादित किया है।

दिनांक : 1 Oct 2019

Priyanka

प्रियंका तलरेजा

(प्रस्तुतकर्ता)

प्राक्कथन

आर्थिक विकास, तीव्र औद्योगीकरण व शहरीकरण ने कच्ची बस्ती की समस्या को जन्म दिया है| विश्व के हर बड़े शहर तथा नगरों में कच्ची बस्तियों की संख्या बढ़ती ही जा रही है| गाँवों से शहरों की ओर लोग रोजगार की तलाश में आते हैं तथा उचित आवास की सुविधा न मिल पाने के कारण कच्ची बस्तियों का निर्माण करते हैं| ये कच्ची बस्तियाँ विश्व के हर शहर/कस्बे में पाई जाती हैं एवं समाज का महत्वपूर्ण हिस्सा है । यहाँ अनेक लोग निवास करते हैं| मुख्यतया इन कच्ची बस्तियों में निम्न आय स्तर वाले तथा श्रमिक निवास करते हैं| इन कच्ची बस्तियों में पेयजल, विजली, पक्के मकानों, सड़कों तथा अन्य मूलभूत सुविधाओं का भी अभाव पाया जाता है|

सम्पूर्ण देश का विकास करने के लिए इन कच्ची बस्तियों का विकास एक महति आवश्यकता है| | प्रत्येक क्षेत्र की कच्ची बस्ती की अपनी अलग विशेषताएँ एवं आवश्यकताएँ होती हैं जिनके आधार पर उनके विकास हेतु प्रयत्न किये जा सकते हैं | इसी कारण से लघु शोध के लिए इस विषय को चुना गया एवं उदयपुर की कच्ची बस्तियों पर शोध किया गया |

प्रस्तुत शोध प्रबन्ध में उदयपुर की कच्ची बस्तियों के सामाजिक-आर्थिक विश्लेषण को प्रस्तुत करने हेतु अनेक अध्यायों में इसका विभाजन किया गया है जिससे कच्ची बस्तियों के सामाजिक व आर्थिक स्तर को आसानी से समझा जा सके|

प्रथम अध्याय "परिचय" में कच्ची बस्ती के अर्थ, परिभाषा, उदय के कारण एवं विशेषताओं को बताया गया है|

इसी अध्याय में भारत व राजस्थान की कच्ची बस्तियों का वर्णन किया गया है तथा साथ ही इस अध्ययन के उद्देश्य व महत्व की भी व्याख्या की गयी है|

द्वितीय अध्ययन में साहित्य पुनरवलोकन तथा शोध प्रविधि का उल्लेख किया गया है|

तृतीय अध्याय "उदयपुर का सामान्य परिचय" है, जिसमें उदयपुर शहर की सामान्य जानकारी तथा उदयपुर की कच्ची बस्तियों की संख्या एवं जनंकिकी विशेषताओं का वर्णन किया गया है|

चतुर्थ अध्याय "उदयपुर की कच्ची बस्ती के निवासियों की सामाजिक-आर्थिक स्थिति" है| इस अध्याय में उदयपुर की कच्ची बस्तियों के निवासियों की आर्थिक, सामाजिक स्थिति का अध्ययन कर उनकी जाति, धर्म, पारिवारिक स्थिति, शिक्षा, रोजगार, आय, मकान व अन्य सुविधाओं के स्तर का पता लगाने का प्रयास किया गया है |

पंचम अध्याय "उदयपुर की कच्ची बस्तियों के निवासियों के जीवन स्तर का मूल्यांकन" है| इस अध्याय में उदयपुर की कच्ची बस्तियों में रहने वालों के जीवन स्तर का विश्लेषण किया है| जीवन स्तर का मूल्यांकन जीवन स्तर सूचकांक के माध्यम से किया गया है| इसी अध्याय में यह भी देखा गया है कि प्रतिदर्श द्वारा चुनी हुई कच्ची बस्तियों में रहने वाले निवासियों के जीवन स्तर में समानता पाई जाती है या नहीं| सामान्यतया ऐसा माना जाता है कि कच्ची बस्तियों में निवास करने वाले लोगों का जीवन स्तर निम्न होता है इस तथ्य का विश्लेषण करने के लिए कच्ची बस्ती में रहने वाले निवासियों के जीवन स्तर का अध्ययन किया गया है साथ ही यह भी देखा गया है कि जीवन स्तर पर किन तथ्यों का प्रभाव होता है |

षष्ठं अध्याय "निष्कर्ष, समस्याएँ एवं सुझाव" है| इस अध्याय के अंतर्गत इस शोध के परिणामों का निर्वचन संक्षिप्त रूप प्रस्तुत किया गया है | सर्वेक्षण के दौरान प्राप्त तथ्यों का सामाजिक, आर्थिक व जीवन स्तर के आधार पर विश्लेषण करने पर प्राप्त निष्कर्षों को इस अध्याय में बताया गया है| इस अध्याय में आर्थिक तथा सामाजिक स्तर पर विद्यमान कच्ची बस्ती की समस्याओं का विश्लेषण किया गया है तथा कच्ची बस्ती की समस्याओं के समाधान हेतु सुझावों का भी उल्लेख किया गया है|

Priyanka.

प्रियंका तलरेजा

(प्रस्तुतकर्ता)

आभार

प्रस्तुत शोध प्रबंध के सम्पूर्ण क्रियान्वयन में पर्यवेक्षिका डॉ. नेहा पालीवाल, सहायक आचार्य एवं प्रभारी, अर्थशास्त्र विभाग विश्व विद्यालय सामाजिक विज्ञान एवं मानविकी महाविद्यालय, उदयपुर का अमूल्य सहयोग और मार्गदर्शन मेरा प्रबल समर्थक था जिसके बिना कदाचित् यह कार्य इस रूप में कभी भी पूर्ण नहीं हो पाता। उनके अमूल्य दिशा-निर्देश नवीन एवं प्रेरक विचार व कार्य के प्रति समर्पण की भावना ने सदैव मुझे प्रेरित किया। मेरी क्षमताओं में विश्वास व्यक्त कर प्रत्येक कठिन परिस्थिति में सदैव मार्गदर्शन प्रदान करने वाली परम डॉ. नेहा पालीवाल की मैं आभारी हूँ जिन्होंने इस शोध कार्य को मूर्त रूप देने में समय-समय पर मुझे सहयोग प्रदान किया। साथ ही विभाग के विभागाध्यक्ष प्रो. संजय लोढ़ा एवं अन्य अध्यापकों का भी साधुवाद जिनका प्रत्यक्ष एवं अप्रत्यक्ष सहयोग मुझे प्राप्त हुआ|

अंत में, मैं इस शोध कार्य को मेरे दादा जी श्रीमान् प्रताप लाल जी, दादी श्रीमती मोहिनी देवी, माताजी श्रीमती मनीषा जी एवं पिताजी श्रीमान् अशोक जी, मेरे भाई प्रियांश तथा राहुल और परिवार के सभी सदस्यों के प्रत्यक्ष एवं परोक्ष रूप से सहयोग व आशीर्वाद का प्रतिफल मानती हुए उनके प्रति आभार प्रकट करती हूँ | साथ ही मेरी मित्र कनिष्का, डिम्पल, सोनाली का भी आभार मानती हूँ जिन्होंने समय-समय पर मुझे इस शोध कार्य को करने के लिए प्रेरित एवं प्रोत्साहित किया|

दिनांक: 1 Oct 2019

Priyanka.

स्थान: उदयपुर

(प्रियंका तलरेजा)

अनुक्रमणिका

क्रमांक	विषय वस्तु	पृष्ठ संख्या
1.	अध्ययन का परिचय	1-10
2.	साहित्य-पुनरावलोकन एवं शोध प्रविधि	11-23
3.	उदयपुर का सामान्य परिचय	24-31
4.	उदयपुर की कच्ची बस्तियों के निवासियों का सामाजिक-आर्थिक स्तर	32-58
5.	उदयपुर की कच्ची बस्ती के निवासियों के जीवन स्तर का मूल्यांकन	59-86
6.	निष्कर्ष, समस्याएँ एवं सुझाव	87-97
	संदर्भ ग्रन्थ सूची	98-100
	अनुसूची	-

सारणी सूची

संख्या	विषय वस्तु	पृ. सं.
3.1	उदयपुर की कच्ची बस्तियों की जनसंख्या	27
3.2	वार्ड के अनुसार उदयपुर की कच्ची बस्तियों का वर्गीकरण	29
3.3	कच्ची बस्तियों में निवास करने वाली जनसंख्या एवं उसकी विशेषताएँ	30
4.1	उदयपुर की कच्ची बस्तियों के निवासियों का धर्म	33
4.2	उदयपुर की कच्ची बस्तियों के निवासियों का लिंगानुसार वर्गीकरण	34
4.3	उदयपुर की कच्ची बस्तियों के निवासियों की जाति	35
4.4	उदयपुर की कच्ची बस्तियों के निवासियों का वैवाहिक स्तर	36
4.5	उदयपुर की कच्ची बस्तियों के निवासियों का शैक्षिक स्तर	37
4.6	उदयपुर की कच्ची बस्तियों में जातिवार शैक्षिक स्थिति	39
4.7	उदयपुर की कच्ची बस्तियों में आयुवार शैक्षिक स्तर	41
4.8	उदयपुर की कच्ची बस्तियों में लिंगानुसार शैक्षिक स्थिति	43
4.9	उदयपुर की कच्ची बस्तियों में परिवार के सदस्यों की संख्या	45
4.10	उदयपुर की कच्ची बस्तियों में बच्चों की संख्या	46
4.11	उदयपुर की कच्ची बस्तियों के निवासियों की निवास-अवधि	48
4.12	उदयपुर की कच्ची बस्तियों के निवासियों की मासिक आय	49
4.13	उदयपुर की कच्ची बस्तियों के निवासियों के रोजगार की प्रकृति	51
4.14	उदयपुर की कच्ची बस्ती के निवासियों के पुरुषों के रोजगार की प्रकृति	52
4.15	उदयपुर की कच्ची बस्तियों में महिलाओं के रोजगार की प्रकृति	53
4.16	उदयपुर की कच्ची बस्तियों में पुरुषों एवं महिलाओं के रोजगार की तुलना	55
5.1	उदयपुर की कच्ची बस्ती के निवासियों के मकान का स्वामित्व	60
5.2	उदयपुर की कच्ची बस्तियों के मकान की स्थिति	60
5.3	उदयपुर की कच्ची बस्तियों के निवासियों के मकान से संतुष्टि की स्थिति	61

5.4	उदयपुर की कच्ची बस्तियों के मकानों में शौचालयों की उपलब्धता	63
5.5	उदयपुर की कच्ची बस्तियों के मकानों में स्नानाघर की उपलब्धता	63
5.6	उदयपुर की कच्ची बस्तियों के मकानों में रसोईघर की उपलब्धता	64
5.7	उदयपुर की कच्ची बस्तियों में खाना पकाने के मुख्य स्त्रोत	65
5.8	उदयपुर की कच्ची बस्तियों में पानी का स्त्रोत	66
5.9	उदयपुर की कच्ची बस्तियों में बिजली कनेक्शन	66
5.10	उदयपुर की कच्ची बस्तियों में बिजली मीटर की उपलब्धता	67
5.11	उदयपुर की कच्ची बस्तियों में बिजली के भुगतान का स्त्रोत	67
5.12	उदयपुर की कच्ची बस्तियों में स्वच्छता	68
5.13	उदयपुर की कच्ची बस्तियों में बच्चों के विद्यालय का प्रकार	69
5.14	उदयपुर की कच्ची बस्तियों के निवासियों के रोगों के उपचार का तरीका	70
5.15	उदयपुर की कच्ची बस्तियों के निवासियों बैंक/ पोस्ट ऑफिस में खाता	71
5.16	उदयपुर की कच्ची बस्तियों के निवासियों के पास पाए जाने वाले दस्तावेजों की उपस्थिति	72
5.17	उदयपुर की कच्ची बस्तियों में निवासियों के द्वारा घरेलू उपकरणों व वाहनों का उपभोग	73
5.18	उदयपुर की कच्ची बस्तियों में सुरक्षा की स्थिति	76
5.19	उदयपुर की कच्ची बस्तियों में उपलब्ध सुविधाएँ	77
5.20	उदयपुर की कच्ची बस्तियों के निवासियों का जीवन स्तर सूचकांक मूल्यानुसार वर्णन	79
5.21	प्रतिदर्श द्वारा चयनित कच्ची बस्तियों का जीवन स्तर सूचकांक के आधार पर तुलना व जीवन स्तर	80
5.22	उदयपुर की कच्ची बस्तियों के जीवन स्तर का विभिन्न श्रेणियों में वर्गीकरण	82
5.23	उदयपुर की कच्ची बस्तियों के औसत जीवन स्तर सूचकांकों की समानता की जांच के लिए काई वर्ग परीक्षण	83
5.24	शिक्षा का जीवन स्तर पर प्रभाव जानने के लिये विश्लेषण	83
5.25	काई-वर्ग परीक्षण	84

आरेख-सूची

संख्या	विषय वस्तु	पृ. सं.
2.1	अध्ययन का प्रतिदर्श प्रारूप	19
4.1	उदयपुर की कच्ची बस्तियों के सभी निवासियों की धार्मिक स्थिति	33
4.2	उदयपुर की कच्ची बस्तियों के सभी निवासियों का लिंगानुसार वर्गीकरण	34
4.3	उदयपुर की कच्ची बस्तियों के सभी निवासियों की जातिवार स्थिति	36
4.4	उदयपुर की कच्ची बस्तियों के सभी निवासियों का शैक्षिक स्तर	38
4.5	उदयपुर की कच्ची बस्तियों के परिवारों में बच्चों की संख्या का प्रतिशत आधार पर वर्गीकरण	46
4.6	उदयपुर के कच्ची बस्ती के निवासियों के रोजगार की प्रकृति	51
5.1	उदयपुर की कच्ची बस्तियों के सभी निवासियों की मकान की स्थिति	61
5.2	उदयपुर की कच्ची बस्तियों के सभी निवासियों के मकान से संतुष्टि की स्थिति का वर्गीकरण	62

अध्याय -1

अध्ययन का परिचय

कच्ची बस्तियाँ तीव्र औद्योगिकरण तथा शहरीकरण का परिणाम हैं| तेजी से हो रहे आर्थिक विकास के कारण शहरों तथा कस्बों में कच्ची बस्तियों की उत्पति हुई है| यह बस्तियों में कई सामाजिक व आर्थिक समस्याएँ जन्म लेती हैं|

एक तरफ रोजगार प्राप्ति की इच्छा रखने वाले लोग गांवों से शहरों की ओर पलायन कर रहे हैं जिससे गरीब वर्ग की संख्या शहरों में दिन-प्रतिदिन बढती जा रही है तथा दूसरी ओर शहरों में भूमि की कमी के कारण आवासीय भूमि की कीमतें निरंतर बढ़ रही हैं| | परिणामस्वरूप निम्न वर्ग वाले लोग भूमि के अभाव में कच्ची बस्तियों का निर्माण करते हैं| कच्ची बस्तियों में रहने वाले लोग सामान्यतया समाज के कमजोर भाग माने जाते हैं|

कच्ची बस्तियों में ख़राब तथा अपूर्ण बुनियादी ढांचे वाली आवास इकाइयाँ पाई जाती हैं जिसमें मुख्य रूप से गरीब निवास करते हैं| कच्ची बस्तियों के मकान कच्चे हैं तथा इनकी स्थिति व दशा छिन्न-भिन्न है| कच्ची बस्तियों में मूलभूत सुविधाओं यथा पानी, बिजली, शौचालय, शुद्ध वायु, पक्की सड़कों आदि का अभाव पाया जाता है|

आज विश्व के प्रत्येक आठ व्यक्तियों में से एक व्यक्ति कच्ची बस्ती में निवास करता है (यूएन रिपोर्ट, 2015-2016)| आज लगभग 1 बिलियन लोग कच्ची बस्तियों में निवास कर रहे हैं| कच्ची बस्तियों में तीव्रता से हो रही वृद्धि को कुछ विद्वानों ने 'पत्थर का रेगिस्तान', 'व्याधि का नगर' तथा 'नरक की संक्षिप्त रूपरेखा' आदि नामों से पुकारा है| विश्व के कई समृद्ध राष्ट्र जैसे अमेरिका, पश्चिम जर्मनी, इंग्लैंड भी अनेक प्रयासों के बावजूद कच्ची बस्तियों से मुक्ति नहीं पा सके हैं|

भारत में औद्योगिक क्रांति चाहे देर से आई परन्तु फिर भी भारत इस समस्या से बच नहीं पाया है| भारत के कई शहरों जैसे - मुंबई, दिल्ली, कोलकात्ता में उद्योगों की तीव्र गति से विकास होने के कारण ग्रामीण जनसंख्या का शहरों की ओर

प्रवास होने लगा| प्रवासित जनसंख्या मुख्यतः गावों में प्रतिकूल परिस्थितियों यथा गरीबी, बेकारी, कम मजदूरी, शिक्षा व स्वास्थ्य, मनोरंजन आदि तथा शहरों में अनुकूल स्थितियों जैसे रोजगार की सुविधा, शिक्षा, उचित स्वास्थ्य सुविधाएं, मनोरंजन आदि के कारण शहरों में केन्द्रित होने लगती है|

कच्ची बस्तियाँ भारत के गाँव और शहरों के हर कोने में विद्यमान हैं| महानगर मुंबई में (वर्ल्ड पापुलेशन रिव्यु, 2019) 41.3 प्रतिशत जनसंख्या कच्ची बस्तियों, गलियों तथा फुटपाथ पर रहती है|

शहरीकरण तथा औद्योगिकरण की तीव्रता ही कच्ची बस्ती का मूल कारण है| भारत एक कृषि प्रधान देश है| परन्तु कृषि पर आश्रितों की संख्या में निरंतर कमी आई है| कृषि द्वारा जीवनयापन में कठिनाई होने के कारण गाँवों से लोग शहरों की ओर पलायन करते हैं| जिससे व्यवसायों और उद्योगों पर निरंतर आश्रितों की वृद्धि को देखा गया है| इस प्रकार शहरों में जो उद्योग स्थापित होते हैं, वह व्यक्ति को अपनी ओर आकर्षित करते हैं| यह प्रवासित जनसंख्या औद्योगिक क्षेत्रों के आस-पास काफी क्षेत्र में केन्द्रित हो जाती है तथा कच्ची बस्तियों का निर्माण होने लगता है| कच्ची बस्तियों को अलग-अलग नामों से पुकारा जाता है यथा मुंबई में **चाल**, तमिलनाडु में **चेरी** ,कोलकात्ता में **बस्ती** तथा कानपुर में **अहाता**| इन कच्ची बस्तियों में स्वस्थ जीवन का विकास नहीं हो पाता है| अतः कुछ विद्वानों ने इन कच्ची बस्तियों को **'विघटन का केंद्र'** भी कहा है|

कच्ची बस्तियाँ हमारे समाज का महत्वपूर्ण हिस्सा है| किसी भी देश का सम्पूर्ण विकास करने के लिए इन कच्ची बस्तियों का विकास करना भी आवश्यक है| क्योंकि इन कच्ची बस्तियों में देश का महत्वपूर्ण हिस्सा निवास करता है| प्रत्येक क्षेत्र की कच्ची बस्ती की अपनी अलग विशेषताएँ एवं आवश्यकताएँ होती हैं जिनके आधार पर उनके विकास हेतु प्रयत्न किये जा सकते हैं |अतः उदयपुर की कच्ची बस्तियों की सामाजिक व आर्थिक समस्याओं के बारे में भली-भांति जानकारी प्राप्त करने के लिए शोधकर्ता द्वारा इस विषय को चुना गया है| इस शोध के अंतर्गत उदयपुर की कच्ची बस्तियों की सामाजिक व आर्थिक स्थिति का अध्ययन किया गया है| ताकि उदयपुर

की कच्ची बस्ती की समस्याओं का पता लगाया जा सके तथा इन समस्याओं का हल खोजकर कच्ची बस्ती के विकास में योगदान देने हेतु सुझाव दिये जा सकें|

1.1 अर्थ एवं परिभाषा

कच्ची बस्ती में निम्न आय वर्ग वाले लोग ख़राब दशाओं में रहते हैं| इन कच्ची बस्ती में रहने वाले लोग मूलभूत सुविधाओं से भी वंचित रहते हैं| इनके भीड़युक्त मकान या झोपडियां जो कच्ची बस्तियों के नाम से जाने जाते हैं, देश के सभी औद्योगिक नगरों में दिखाई देते हैं|

अर्थात कच्ची बस्तियाँ, झोपड़ियों/ मकानों का एक समूह या क्षेत्र है जिसकी विशेषता भीड़युक्त क्षेत्र ,अस्वास्थ्यकारी दशाएं तथा सुविधाओं का अभाव है|

बर्गेल के अनुसार(1955) " कच्ची बस्तियाँ शहर में वह क्षेत्र हैं जिनमें निम्न स्तर की आवास दशाएं होती हैं|"

आर. इ. डिकिन्सन के अनुसार(1948) "*स्लम*" नगर के उस भाग को कहते हैं जहाँ मकान रहने योग्य न हों और जहाँ का वातावरण नागरिकों के स्वास्थ्य एवं नैतिकता के लिए हानिकारक सिद्ध हो| यह वह घना बसा हुआ क्षेत्र है, जहाँ भूमि मूल्य गिरा हो, जहाँ निवासियों का आर्थिक स्तर निम्न हो, जहाँ अपराध का आधिक्य, मृत्यु एवं बीमारियों की उच्च दर हो, वहां पर निवास करने वाले व्यक्ति अशिक्षित, निर्धन, अस्वस्थ और अधिकांश प्रवासी होते हैं|

मार्शल के अनुसार(1966) "एक कच्ची बस्ती अपर्याप्त आवास, अपर्याप्त सुविधाओं, भीड़भाड़ और संकुलता से पहचानी जाती है|"

स्लम एरिया (सुधार क्लीयरेंस) अधिनियम (भारत की केंद्र सरकार द्वारा **1956** में अधिनियमित) में कच्ची बस्ती की परिभाषा निम्न प्रकार है - "कोई मुख्यतः आवासीय क्षेत्र, जहाँ आवास जीर्णता, अतिसंकुलता (भीड़), डिजाइन की दोषपूर्ण व्यवस्था, वेंटिलेशन की कमी, प्रकाश या सैनिटरी सुविधाओं के कारण या इन कारकों के किसी संयोजन के कारण सुरक्षा, स्वास्थ्य या नैतिकता के लिए अहितकर होते हैं|"

कच्ची बस्तियों को पूरी तरह से पहचानना कठिन है परन्तु जनगणना संगठन द्वारा इनकी निम्न प्रकार पहचान की गई है-

- वे सभी क्षेत्र जो राज्य सरकार / स्थानीय प्रशासन या केंद्रीय सरकार द्वारा कच्ची बस्ती के रूप में अधिसूचित किये गए हों|
- वे सभी क्षेत्र जो राज्य सरकार / केंद्रीय प्रशासन और केंद्र सरकार द्वारा पहचाने गए हों|
- वे सभी सिकुड़े हुए क्षेत्र जहाँ कम से कम 300 की जनसंख्या या 60-70 घर अनियमित रूप से आवासीय भूमि पर बसे हो और जहाँ मूलभूत सुविधाओं जैसे बिजली, पेयजल, आवास व शुद्ध हवा की कमी पाई जाती है|

1.2 कच्ची बस्तियों के उदय के कारण

कच्ची बस्तियों का उदय अचानक नहीं हो गया वरन् इसकी पृष्ठभूमि में अनेक तत्व हैं जो इनकी वृद्धि के कारण बने हैं| उन तत्वों का वर्णन निम्नानुसार हैं|

1.2.1 निर्धनता - निर्धनता एक श्राप है| निर्धन, बेरोजगार, दैनिक वेतनभोगी श्रमिक ये सब उस वर्ग के व्यक्ति हैं जो कठोर परिश्रम करने के पश्चात् भी दो वक़्त का भोजन अपने परिवार को नहीं दे पाते हैं| परिणामतः इनके बच्चे कुपोषण का शिकार बन जाते हैं| निर्धनता उच्च पौष्टिक मूल्यों वाले भोज्य पदार्थो को खरीदने योग्य नहीं छोडती है| अभावों में जीना इनकी मजबूरी है| निम्न वर्ग के व्यक्ति गाँवों से शहरों की ओर आते हैं जिससे शहर में आवासीय भूमि की कमी के कारण कच्ची बस्तियों का निर्माण होता है|

1.2.2 नगरों में आवास की कमी - नगरों में भूमि सीमित व मांग अत्यधिक है| भूमि के मूल्य आसमान छूते हैं| सामान्य व्यक्ति भूमि क्रय करके नगर में मकान नहीं बना सकता| लाखों श्रमिक जिनके साधन व आय सीमित हैं उन्हें विवश होकर कच्ची बस्तियों में रहना पड़ता है| मकान कम व रहने वाले अधिक हैं और निरंतर कच्ची बस्तियों में वृद्धि हो रही है|

1.2.3 नगरीय जनसंख्या का दबाव - बढती जनसंख्या के साथ जमीन तो नहीं बढ़ी फलस्वरूप रोजगार की खोज में लोग गाँव से शहरों की तरफ भाग रहे हैं| जहाँ उन्हें राहत के स्थान पर तमाम तकलीफों का सामना करना पड़ता है| जिससे शहरों में कच्ची बस्तियों का निर्माण होता है|

1.2.4 ग्रामीण बेरोजगारी - गाँव में जहाँ वर्ष में कुछ ही महीने व्यक्ति को काम मिलता है तथा शेष महीने वह बेरोजगारी के श्राप को भोगता है| ग्रामीण क्षेत्र में इस प्रकार की व्यवस्था नहीं है कि व्यक्ति को खाली समय में काम मिल सके| इसलिए खेती के समय जो व्यक्ति गाँव में उपलब्ध रहते हैं उसके पश्चात् वह नगरों में काम करने आ जाते हैं| इनमें से अधिकांश व्यक्ति रिक्शाचालक, ठेले खींचने वाले, मिल में श्रमिक होते हैं अथवा छोटा-मोटा कार्य करके जीविका अर्जित करते हैं| उचित रूप से रोजगार न मिल पाने के कारण गाँवों से आये हुए व्यक्ति उचित आवास को नहीं प्राप्त कर पाते हैं जिसके कारण कच्ची बस्तियों का निर्माण होता है|

1.2.5 औद्योगिकरण व नगरीकरण - औद्योगिकरण व नगरीकरण ने कच्ची बस्तियों को जन्म दिया है| इनके फलस्वरूप उद्योगों में काम करने के लिए गाँव से आने वाले लोगों को निवास के लिए जब कम किराये पर अच्छे मकान उपलब्ध नहीं हो पाते तो वह गंदे मकानों में रहने लगते हैं| अथवा खाली पड़े मकानों, भूमि पर अतिक्रमण बना लेते हैं| श्रमिकों द्वारा उद्योगों के आस-पास ऐसी बस्तियों का निर्माण किया जाता है| इन बस्तियों को सामान्य भाषा में कच्ची बस्तियों के नाम से पुकारा जाता है|

1.2.6 नगरीय आकर्षण - नगरों में अनेक सुविधाओं यथा चिकित्सा, नल, पानी, बिजली, पुलिस व न्यायलय की ओर आकर्षित होकर शहरों की ओर आते हैं, जिससे आवास की कमी के कारण कच्ची बस्तियों का निर्माण होने लगता है|

1.2.7 व्यापारिक उन्नति - शहरों में व्यापारिक उन्नति व सुविधा के अनेक अवसर उपलब्ध होते हैं| उत्पादन की बिक्री, मांग की अधिकता के कारण लोग कच्चा माल बेचने व बना माल खरीदने शहरों में आते हैं तथा व्यापारिक लालसा उन्हें शहरों में बसने को प्रेरित करती है| जिसके कारण कच्ची बस्तियों का निर्माण होता है|

1.2.8 श्रमिकों की बहुलता - शहरों में श्रमिकों की बहुलता होती है तथा ये अपने कारखानों तथा कार्यस्थल के पास ही रहना चाहते हैं जिससे कच्ची बस्तियाँ बन जाती हैं|

1.2.9 निम्न वर्ग की अधिकता - शहरी क्षेत्रों में निम्न वर्गों की बहुलता होती है| ये रुढ़िवादी तथा आवास की दयनीय स्थिति में जीवन बिताते हैं|

1.3 कच्ची बस्ती की विशेषताएँ

कच्ची बस्तियों की अवधारणा को स्पष्ट रूप से समझने के लिए हमने **नेल्स एंडरसन (1960)** की विशेषताओं का उल्लेख किया है-

1.3.1बनावट - सभी कच्ची बस्तियाँ भवन, नालियों, चोगान की दृष्टि से गिरी हुई और प्राचीन होती है|

1.3.2 जनसंख्या - कच्ची बस्तियों में स्थान की कमी के कारण जनसंख्या की अधिकता होती है|

1.3.3 आर्थिक स्थिति - यहाँ सामान्यतया कम आय वाले लोग रहते हैं**| देसाई व पिल्लई(1970)** के अनुसार "बस्तियों की सर्वाधिक महत्वपूर्ण विशेषता गरीबी है| कच्ची बस्तियों में रहने वाले लोग बाजार द्वारा तय किया किराया देने में असमर्थ होते हैं|"

1.3.4 अत्यधिक भीड़भाड़ - कच्ची बस्ती के क्षेत्र में मकानों की भीड़भाड़ या उसमें रहने वाले लोगों की भीड़ होती है और खाली जमीन पर अतिक्रमण किए होते हैं|

1.3.5 स्वास्थ्य व सफाई - कच्ची बस्ती में स्वच्छता व सार्वजनिक सेवाओं का अभाव पाया जाता है| यहाँ बीमारी व मृत्युदर अधिक होती हैं|

1.3.6 नैतिकता - नेल्स एंडरसन के अनुसार कच्ची बस्तियाँ बाल अपराधों व बुराइयों का क्षेत्र होती है| ये अपराधियों का स्थान होती हैं| क्योंकि इन बस्तियों में निम्न आय वर्ग वाले लोग निवास करते हैं जो अपने बच्चों को उचित शिक्षा नहीं दे पाते हैं जिसके कारण बेरोजगारी की दशा में युवा अपराधिक गतिविधियों का शिकार हो जाते हैं|

1.3.7 सामाजिक पृथक्करण - कच्ची बस्ती में रहने वाले निवासी साधारणतया समाज के अति निम्न वर्ग माने जाते हैं| यहाँ के निवासी श्रम बाज़ार में श्रमिक रूप से कार्य करते है| शहर में रहने वाले लोग इन निम्न वर्ग वाले व्यक्तियों को अलग दृष्टि से देखते हैं|

1.3.8 गतिशीलता - कच्ची बस्ती में उच्च स्तर की निवासीय गतिशीलता पाई जाती है| अर्थात व्यक्ति सुविधाओं से आकर्षित होकर गाँवों से शहरों की ओर गतिशील हो जाते हैं|

1.3.9 कच्ची बस्ती की स्थिरता - सामान्यतया कच्ची बस्तियों को एक स्थान से हटाने पर वे समाप्त नहीं होती वरन् दूसरे स्थान पर बन जाती हैं|

1.4 भारत में कच्ची बस्तियाँ

कच्ची बस्तियाँ भारत की एक मुख्य समस्या है| भारत में नगरीय जनसंख्या लगभग 5.41 प्रतिशत (जनगणना 2011 के अनुसार) कच्ची बस्तियों में निवास कर रही है| 1978 में भारत की कुल जनसंख्या 63 करोड़ थी जिसमें से लगभग 13 करोड़ जनसंख्या नगरों में रह रही थी| 1988 में भारत में कच्ची बस्तियों में रहने वाली जनसंख्या 36 मिलियन हो गई| जिससे नये मकानों का निर्माण कठिन हो गया तथा उनमें हवा, रोशनी, जल, बिजली, स्वास्थ्य व सफाई का अभाव पाया गया| 2 अक्टूबर 1952 को श्रमिक बस्ती का निरीक्षण करते हुए स्वर्गीय जवाहर लाल नेहरु ने इन्हें नरक कुण्ड की संज्ञा दी थी|

जनगणना 2011 के अनुसार भारत की कुल जनसंख्या लगभग 121 करोड़ है| भारत में कच्ची बस्तियों में रहने वाले परिवारों की संख्या 13,920,191 है| भारत में कच्ची बस्ती में रहने वालों की जनसंख्या 65,494,604 है| जिनमें से पुरुषों की संख्या 33,968,203 तथा स्त्रियों की संख्या 31,526,401 है| साक्षरता दर 77.72 प्रतिशत है|

1.5 राजस्थान की कच्ची बस्तियाँ

भारत के इतिहास में पहली बार जनसंख्या सांख्यिकी ने शहरों व कस्बों में 1991 से 2001 तक की कच्ची बस्तियों की गणना की| जनसंख्या सांख्यिकी ने

राज्य में कुल कच्ची बस्ती के क्षेत्र को 2422 खण्डों में विभाजित किया| सन् 2001 की जनगणना के अनुसार राजस्थान की कुल शहरी जनसंख्या 1,32,05,444 थी| कच्ची बस्तियों में निवास करने वालों की जनसंख्या 12,06,123 थी जो कुल नगरीय क्षेत्र का 9.31 प्रतिशत था| जनगणना 2011 के अनुसार राजस्थान की कुल जनसंख्या 68,548,437 है| राजस्थान में 3.02 प्रतिशत कच्ची बस्तियाँ है| कच्ची बस्तियों की कुल जनसंख्या 2,068,000 हैं| कच्ची बस्तियों में निवास करने वाले परिवारों की संख्या 394,391 है| जिनमें पुरुषों की संख्या 1,078,991 है तथा स्त्रियों की संख्या 989,009 है| 0-6 वर्ष आयु वाले बच्चों की संख्या 306,035, अनुसूचित जाति 582,562, अनुसूचित जनजाति 100,675 है| इसकी साक्षरता दर 69.89 प्रतिशत है| राजस्थान की इन कच्ची बस्तियों में सुरक्षित आवास, पानी, स्वच्छता की, बिजली की कमी पाई जाती है|

1.6 अध्ययन का महत्व

वर्त्तमान में तेजी से बढ़ती हुई जनसंख्या की समस्या एक भयानक रूप धारण कर रही है| इस समस्या ने आवास की समस्या को उत्पन्न किया है| आज शहर में अनेक कच्ची बस्तियाँ हैं| कच्ची बस्तियाँ वे बस्तियाँ हैं जहाँ मकान विहीन व्यक्तियों द्वारा भूमि पर अतिक्रमण कर शहर के विभिन्न भागों में कच्चे मकान बना लिए जाते हैं|

किसी भी स्तर पर इनका नियोजन प्रशासन द्वारा नहीं होने से एक ओर तो ये अनियमित एवं अव्यवस्थित हैं तो दूसरी तरफ सामान्य जीवन के सुखों से वंचित हैं| टूटी-फूटी झोपड़ियाँ, गंदे रास्ते, गन्दी नालियां, बिजली का अभाव, अस्वच्छ पानी, प्रशासनिक आतंक यहाँ के निवासियों को जीने को मजबूर करता है| गाँवों से शहरों की ओर पलायन कर रहे लोगों के कारण भी शहरों में कच्ची बस्तियों का निर्माण होता है|

किसी भी देश का आर्थिक विकास उस देश की राष्ट्रीय आय में वृद्धि होना मात्र नहीं बल्कि उस देश के लोगों के स्वास्थ्य व शिक्षा के स्तर में वृद्धि होना भी है| कच्ची बस्तियाँ भी इसी समाज का हिस्सा हैं अतः यदि देश का विकास करना है तो

पहले कच्ची बस्तियों का भी विकास करना पड़ेगा| कच्ची बस्तियाँ समाज का कमज़ोर हिस्सा हैं| देश के विकास के लिए कच्ची बस्तियों का विकास होना जरूरी है| देश की इस समस्या का अध्ययन करने का विशेष महत्व है| कच्ची बस्तियों के विकास के द्वारा सम्पूर्ण समाज के विकास का लक्ष्य प्राप्त किया जा सकेगा| यदि कच्ची बस्ती की समस्या को हल नहीं किया गया तो गरीबी, बेकारी, अपराध, कुपोषण जैसी समस्याएं उत्पन्न हो जाएगी| इस अध्ययन से पूर्व भी कच्ची बस्तियों पर अनेक अध्ययन किये जा चुके हैं| परन्तु इस अध्ययन में उदयपुर की कच्ची बस्तियों के सामाजिक व आर्थिक स्तर को चित्रित किया गया है| इस अध्ययन द्वारा उदयपुर की कच्ची बस्ती के निवासियों की आय, रोजगार स्तर, शिक्षा, मकान की स्थिति, निवासियों के जीवन स्तर आदि की जानकारी प्राप्त की गई है| यह अध्ययन निश्चित ही कच्ची बस्ती में निवास करने वाले लोगों की आर्थिक व सामाजिक स्थिति को समझने में सहायता प्रदान करता है| कच्ची बस्तियों के इस अध्ययन के द्वारा कच्ची बस्ती में निवास करने वाले लोगों की समस्याओं के बारे में जाना जा सकता है ताकि समस्याओं को दूर करने के उपायों पर विचार किया जा सके|

1.7 अध्ययन के उद्देश्य

कच्ची बस्ती के अध्ययन के महत्व को ध्यान में रखते हुए कच्ची बस्ती का अध्ययन करने हेतु कुछ उद्देश्यों का निर्धारण किया गया है| मुख्य उद्देश्य निम्नानुसार हैं :-

1.7.1 उदयपुर कच्ची बस्ती के निवासियों की सामाजिक व आर्थिक स्थिति का अध्ययन करना|

1.7.2 उदयपुर की कच्ची बस्ती के निवासियों के जीवन स्तर का मापन एवं विश्लेषण करना|

1.7.3 उदयपुर की कच्ची बस्ती के निवासियों के रोजगार की प्रकृति एवं स्तर का विश्लेषण करना|

1.7.4 उदयपुर की कच्ची बस्ती के निवासियों के जीवन स्तर एवं आर्थिक स्थिति में सुधार हेतु सुझाव देना|

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अध्याय-2

साहित्य-पुनरावलोकन एवं शोध प्रविधि

2.1 साहित्य का पुनरावलोकन

शोधकर्ता द्वारा अपने अध्ययन की समस्या का निर्धारण कर लेने के पश्चात् समस्या से सम्बन्धित विषय पर उपलब्ध सामग्री का गहन अध्ययन किया जाता है, जिसे साहित्य का पुनरवलोकन कहा जाता है|

हमने अपने अध्ययन की समस्या को भली रूप से जानने के लिए विभिन्न प्रकार की पुस्तकों, पत्र-पत्रिकाओं, प्रतिवेदनों, सरकारी दस्तावेजों, विश्वविद्यालयों द्वारा किये गए शोध कार्यों, राष्ट्रीय, अंतर्राष्ट्रीय, राज्य स्तर, जिला स्तर के शोध कार्यों का विभिन्न इन्टरनेट वेबसाइट के माध्यम से गहन रूप से अध्ययन किया गया है| अवलोकित साहित्य को क्षेत्रीय आधार पर अंतर्राष्ट्रीय, राष्ट्रीय, राज्य तथा जिला स्तर के साहित्य में वर्गीकृत करके वर्णन किया गया है|

2.1.1 अंतर्राष्ट्रीय स्तर पर हुए शोध

रोन महाबीर,एनड्रियू क्रूक्स,एरी क्रोतिरु,पेग्गी अगोरिस (2016) द्वारा किये गए शोध कार्य में यह बताया गया है कि 2016 में 1 अरब से ज्यादा लोग कच्ची बस्तियों में निवास करते थे तथा आने वाले दशकों में कच्ची बस्ती के निवासियों की संख्या बढ़ने की उम्मीद है| आर्थिक रूप से कम विकसित देशों के शहरी केन्द्रों के आस-पास बड़े आकार की कच्ची बस्तियाँ स्थित है| यह कच्ची बस्तियाँ अधिक विकसित देशों की तुलना में शहरीकरण की उच्च दरों का अनुभव कर रही हैं| इस अध्ययन में यह भी बताया गया है कि कई देशों में बढ़ती हुई जनसंख्या के कारण शहरों में बुनियादी ढांचा (सड़क तथा आवास) और बुनियादी सेवाओं (जैसे पानी तथा स्वास्थ्य) के प्रदान करने की क्षमता में कमी पाई गयी है|

जेम्स (2008) द्वारा किया गया अंतर्राष्ट्रीय स्तर का यह अध्ययन शहर की कच्ची बस्तियों के प्रसार के प्रत्यक्ष प्रभाव से सम्बन्धित था| इसका उपयोग सन 1990 से 2005 की अवधि में 5 वर्ष से कम आयु वाले शिशुओं की मृत्यु के कारणों का पता लगाकर उनके उपायों को सुझाने के लिए किया गया| कच्ची बस्तियों का विकास एक गतिशील धारणा है जिसके कारण कम विकसित देशों में बाल मृत्युदर को सामाजिक रूप से अधिनियमित किया जा सकता है|

2.1.2 राष्ट्रीय स्तर पर किये गए शोध

निशा अग्रवाल,आचार्य श्रीकला, रत्नेंद्र शिंदे (2014) द्वारा किए गए इस अध्ययन में मुंबई की कच्ची बस्तियों में 0-3 वर्ष की आयु वाले 470 बच्चों के मध्य एक अनुभागीय अवलोकन आयोजित किया गया| इन्हें दैव प्रतिदर्श विधि द्वारा चुना गया| इस अध्ययन द्वारा यह पाया गया कि कच्ची बस्ती में रहने वाले 0-3 वर्ष की आयु वाले बच्चों में स्वास्थ्य व पोषण में कमी पाई जाती है जिसके कारण वह अनेक रोगों से ग्रस्त हो जाते हैं|

जितेन्द्र कुमार(2014) द्वारा किये गए भारत के महानगरों के विशेष शोध के द्वारा यह बताया गया है कि तेजी से बढते शहरीकरण और ग्रामीण क्षेत्रों से बढते प्रवास के कारण न केवल भारत में, बल्कि दुनिया के हर शहर/कस्बे में कच्ची बस्तियों का विकास हुआ है| 2001 में लगभग दुनिया की 1/3 आबादी कच्ची बस्तियों में रह रही थी| केवल भारत में दुनिया के 17 प्रतिशत लोग कच्ची बस्तियों में निवास करते हैं| 2001 में, 42.6 मिलियन लोग 640 शहरों/कस्बों में फैली कच्ची बस्तियों में निवास कर रहे थे| 2001 में महानगरीय शहरों में हर पांचवां व्यक्ति कच्ची बस्ती में रह रहा था| इस अध्ययन में बताया गया है कि प्रत्येक शहर में कच्ची बस्ती का आकार इसके वातावरण, विकास के चरण और स्थान की विशेषताओं के परिणामस्वरूप है| महानगरों के कच्ची बस्तियों के विश्लेषण में यह पाया गया कि उच्च औद्योगिक शहरों में कच्ची बस्तियों के विशाल क्षेत्र पाए जाते हैं|

सरिता पाठक (2013) के द्वारा वाराणसी की कच्ची बस्तियों में रहने वाली महिलाओं की जीवन की गुणवत्ता के बारे में अध्ययन किया गया है| इस अध्ययन में

18-50 वर्ष की आयु वाली महिलाओं का अध्ययन किया है| शोधकर्ता ने वाराणसी की चार बस्तियों का अध्ययन किया गया है|

इस अध्ययन में पाया गया है कि वाराणसी की चार कच्ची बस्तियों में महिलाओं की जीवन गुणवत्ता में महत्वपूर्ण अंतर पाए जाते हैं| जीवन गुणवत्ता को मापने के महिलाओं के शिक्षा के स्तर, स्वास्थ्य,नौकरी पेशा आदि कारकों का उपयोग किया गया है| बताया गया है कि महिलाओं की जीवन गुणवत्ता पर पारिवारिक वातावरण का कोई प्रभाव नहीं पड़ता है|

अमिरुल हसन,वंदना शुक्ला(2013)के द्वारा इलाहाबाद की कच्ची बस्तियों में रहने वाली महिलाओं की पोषण सम्बन्धी स्थिति का आंकलन किया गया| शोधकर्ता द्वारा इस अध्ययन में यह पाया गया कि महिलाओं में स्वास्थ्य सम्बन्धी विभिन्न कमियां हैं| इस अध्ययन में पाया गया कि कच्ची बस्ती में रहने वाली महिलाएं एनीमिया से ग्रस्त हैं तथा दांतों से सम्बन्धित समस्याओं के लिए उनके पास चिकित्सा सम्बन्धी सेवाएँ उपलब्ध हैं|

कुपोषण, पोषण सम्बन्धी एनीमिया तथा दांतों से सम्बन्धित रोग कच्ची बस्तियों की महिलाओं की प्रमुख समस्या है| इस अध्ययन में पाया गया कि वजन और ऊँचाई एनीमिया से सम्बन्धित हैं तथा शाकाहारी आहार भी एनीमिया के लिए जिम्मेदार हैं|

गुंजन राजपूत एवं तरल अजीज (2013) के अध्ययन में शिक्षा अधिनियम के प्रति जागरूकता का अध्ययन किया गया है| इसमें बताया गया है कि शिक्षा का अधिकार अधिनियम प्रतिष्ठित कृत्यों में से एक है|

भारतीय इतिहास में इस अधिनियम को केवल लागू करना ही जरुरी नहीं है इसके आगे कई चुनौतियाँ हैं जिनमें से मुख्य है इस अधिनियम की जागरूकता|

अतः यह अध्ययन एक प्रयास था कि कच्ची बस्तियों के मध्य अध्ययन जागरूकता की जाँच करें| इस अध्ययन में पाया गया कि शहरों में पाई जाने वाली कच्ची बस्तियाँ इससे वंचित हैं|

वेंकटेशस्वामी(2013) के द्वारा किये गए अध्ययन के अंतर्गत औद्योगिकरण, शहरी प्रवास आदि को कच्ची बस्ती के उद्भव का कारण बताया गया है| इस अध्ययन में कच्ची बस्ती के उद्भव के विभिन्न कारणों को भी बताया गया है| इसमें बताया गया है कि कच्ची बस्ती किस प्रकार से आर्थिक व सामाजिक स्तर को प्रभावित करती है| इस अध्ययन से पता चलता है कि यहाँ के निवासी अत्यंत गरीबी में जीवन व्यतीत करते हैं | विश्व की 32 प्रतिशत जनसंख्या शहरों में कच्ची बस्तियों के रूप में विद्यमान है|

देबाश्री मुखर्जी (2008) के द्वारा किये गए शोध में कच्ची बस्ती में नारी शिक्षा व सशक्तीकरण को बताया गया है| इस अध्ययन में निरक्षरता के विभिन्न अंतरों को समझाया गया है| इसमें बताया गया है कि इसका मुख्य कारण लिंग असमानता है| ख़राब पोषण की स्थिति तथा कम आय महिलाओं को यह समझने नहीं देती कि उनके पास क्षमता है तथा वह उनके अधिकारों की मूल हक़दार हैं|

बीएम गोविंदाराजू (2000) के द्वारा किये गए इस शोध का उद्देश्य मैंगलोर की कच्ची बस्ती की महिलाओं की सामाजिक स्थिति के बारे में अध्ययन करना था| इस अध्ययन में महिलाओं की एक कार्यकर्त्ता के रूप में भूमिका, काम को स्वीकार करना, नौकरी, वैवाहिक जीवन स्वीकार करने के परिणामस्वरुप भूमिका का अध्ययन किया गया है| इसमें 250 मैंगलोर शहर की महिलाओं का अध्ययन किया गया है|

इस अध्ययन में पाया गया है कि गरीबी, अशिक्षा, बेरोजगारी वे महत्वपूर्ण कारक हैं जो शहरों की ओर पलायन के लिए जिम्मेदार हैं| महिलाओं में रोजगार की स्थिति सभी वर्गों व धर्मों में नीची पाई गयी है|

इस अध्ययन में पाया गया कि मैंगलोर में 51 प्रतिशत महिलाएं बीड़ी बनाने, SC व ST वर्ग की महिलाएं सफाई, झाड़ू लगाने में कार्यरत हैं| कई महिलाएं गैर सरकारी, सरकारी संगठनों में भी कार्यरत हैं| कई महिलाएं अपने बच्चों व पतियों के साथ दिहाड़ी मजदूरी पर भी कार्यरत हैं|

गीता स्वामीनाथ (1996) के शोध में मुंबई की कच्ची बस्तियों में "पोषण सम्बन्धी स्थिति" का अध्ययन किया गया है| इस अध्ययन से पता चलता है कि

पर्याप्त पानी की आपूर्ति, सीवरेज , स्वच्छता, शौचालय तथा बुनियादी नागरिक सुविधाओं का अभाव, कुपोषण आने वाली कई बीमारियों के मूल कारण हैं| शोध के आधार पर पता चलता है कि मुंबई की कच्ची बस्तियों में 19.8 प्रतिशत लड़के व 36.8 प्रतिशत लड़कियां पोषित हैं| कच्ची बस्ती में 25.2 प्रतिशत लड़के व 33.1 प्रतिशत लड़कियां यहाँ कुपोषित थी| इस अध्ययन में यह ज्ञात हुआ है कि लड़कों की तुलना में लड़कियों का पोषण स्तर कच्ची बस्तियों में उच्च था|

अरुणा खासगीवाला (1989) के द्वारा शोध में बड़ौदा की कच्ची बस्तियों का अध्ययन किया गया| इस अध्ययन में पाया गया कि बड़ी संख्या में लोग आस-पास के शहरों से पलायन करके बड़ौदा में आए हैं| उच्च औद्योगिकरण से आकर्षित होकर दूसरे राज्यों के भी लोग यहाँ पलायन करके आ गए हैं| इसी पलायन के कारण से यहाँ कच्ची बस्तियों का निर्माण होने लगा| यहाँ 51 कच्ची बस्तियाँ में 21000 मकान पाए गए हैं| कच्ची बस्ती की जनसंख्या 1 लाख से ऊपर पाई गयी है| इस अध्ययन में बताया गया है कि कच्ची बस्तियों में निम्न व मध्यम आय वाले लोग पाए जाते हैं|

2.1.3 राज्य स्तर पर किये गए शोध

जकारिया चौहान, स्नेहा माहेश्वरी, मोनिका सिन्धु एवं संदीप (2017) के द्वारा किये गए शोध में बताया गया है कि विकासशील देशों में बाल मृत्युदर का एक प्रमुख कारण पोषण की कमी पाया गया है| इस अध्ययन का मुख्य उद्देश्य पश्चिम राजस्थान के जोधपुर की कच्ची बस्तियों में रहने वाले बच्चों की पोषण की स्थिति का मूल्यांकन करना था| इस अध्ययन के अंतर्गत 5 साल से कम उम्र वाले 416 बच्चों को शामिल किया गया था| शोधकर्ताओं द्वारा इस शोध में परिणामतः यह पाया गया कि 416 बच्चों में से 234(56%) बच्चे कुपोषित थे तथा शेष 182(44%)बच्चे अस्वस्थ थे| शोध में पाया गया कि यहाँ स्वच्छता की कमी है तथा उचित स्वच्छ पेयजल की भी कमी पाई गयी थी| शोधकर्ताओं द्वारा बताया गया है कि शहरी कच्ची बस्तियों में निवास करने वाले लोगों में कौशल आधारित पोषण शिक्षा, उचित खाद्य पदार्थ, उचित स्वच्छता बनाये रखने, स्वस्थ भोजन की

जानकारी, खुले में शौच के हानिकारक प्रभाव के लिए कार्यक्रम विकसित करने की आवश्यकता है|

सार्वजनिक निजी भागीदारी मॉडल के तहत स्लम विकास, शहरी आवास और स्थानीय स्वशासन विभाग (2010) के अनुसार राजस्थान राज्य द्वारा लागू की गयी विकास नीतियों के बावजूद राजस्थान राज्य में कई अनाधिकृत स्लम क्षेत्र पाए गए हैं और इनमें से कई कच्ची बस्तियों के समुचित विकास में कठिनाइयाँ पाई गई है| शहरी स्थानीय निकाय स्लम में विकास का कार्य कर रहे हैं| कुछ कच्ची बस्तियों में अन्य क्षेत्रों में पुनर्वास किया है|

अतः इसमें बताया गया है कि इस दिशा में सरकार के साथ-साथ निजी प्रयासों की भी आवश्यकता है|

नीरज हतेकर,संजय रोड़े (2003) के द्वारा जयपुर शहर पर किये गए इस शोध में यह देखा गया कि सामाजिक, सांस्कृतिक और व्यवहार सम्बन्धी बाधाएँ जैसे महिला अशिक्षा, महिलाओं की ख़राब आर्थिक स्थिति, बच्चों के पोषण स्थिति को प्रभावित करती हैं| इस अध्ययन के अंतर्गत जयपुर की कच्ची बस्ती व मुंबई की कच्ची बस्ती में तुलनात्मक अध्ययन किया गया है| पोषण संकेतकों के आधार पर इस अध्ययन से पता चलता है कि जवाहर लाल कॉलोनी, जयपुर की तुलना में मुंबई की कच्ची बस्ती में कुपोषण अधिक पाया गया है|

2.1.4 जिला स्तर पर किये गए शोध

बी.आर विश्नोई, एस.एल सोलंकी, बी.मेहरडा एवं एन.मिश्रा (2015) के द्वारा की गयी इस रिपोर्ट का मुख्य उद्देश्य उदयपुर की कच्ची बस्तियों में रहने वाले बुजुर्गों में पाई जाने वाली बीमारियों का मुख्य रूप से अध्ययन करना था| होने वाली बीमारियों का पूर्व में ही पता लगाकर उच्च चिकित्सा को अपनाना था|

यह अध्ययन उदयपुर में निवास करने वाले कच्ची बस्ती के 300 बुजुर्गों पर किया गया| इसमें 176 पुरुष व 124 महिलाएं थीं| 75.67 प्रतिशत लोग 60-69 आयु

वर्ग के थे| इस अध्ययन में पाया गया कि 14.67 प्रतिशत लोग एनीमिया, 15.33 प्रतिशत लोग अनिद्रा, 61 प्रतिशत लोग कुदृष्टि आदि बीमारियों से ग्रसित थे|

प्रेमसिंह (2007) के द्वारा किये गए शोध के अंतर्गत उदयपुर की कच्ची बस्तियों का अध्ययन किया गया है तथा उनकी सामाजिक व आर्थिक स्थिति का अध्ययन किया गया है| इस अध्ययन में सरकारी योजनाओं का कच्ची बस्तियों में होने वाले प्रभावों का अध्ययन व विश्लेषण किया गया है|

इस अध्ययन द्वारा बताया गया है की कच्ची बस्तियों में बड़ी समस्या सड़क, बिजली, पेयजल, रोड लाइट्स व नालियों की निकासी की है| इस अध्ययन द्वारा यह भी बताया गया है की बस्तियों में सरकारी स्कूल न होने से भी यहाँ के बच्चे शिक्षा से वंचित रह जाते हैं|

2.2 शोध प्रविधि

किसी भी अनुसन्धान कार्य में अनुसन्धान पद्धति का विशेष महत्व होता है|

कार्ल पीर्यसन का कथन है -**"सत्य को पाने के लिए संक्षिप्त पथ नहीं है | विश्व का ज्ञान प्राप्त करने के लिए वैज्ञानिक पद्धति से गुजरना ही पड़ेगा |"**

इस प्रकार शोध अध्ययन को सार्थक तथा सत्य पर आधारित बनाने के लिए वैज्ञानिक पद्धति का सहारा लेना ही पड़ता है|

शोधकर्ता के द्वारा इस अध्ययन में उदयपुर की कच्ची बस्तियों का सामाजिक व आर्थिक रूप से अध्ययन किया गया है| इस अध्ययन के अंतर्गत साक्षात्कार अनुसूची द्वारा कच्ची बस्तियों से आंकड़ों को एकत्रित किया गया है| उसी प्रकार से इस शोध को सत्य पर आधारित बनाने के लिए वैज्ञानिक पद्धति का सहारा लिया गया है जिससे उदयपुर की कच्ची बस्तियों पर आधारित इस शोध को अधिक उपयोगी बनाया जा सके तथा इसके विश्लेषण से प्राप्त परिणामों को लागू भी किया जा सके|

2.2.1 अध्ययन का क्षेत्र

किसी भी शोध कार्य को पूरा करने क लिए एक निश्चित क्षेत्र का निर्धारण कर उसकी जानकारी अति आवश्यक है | वर्त्तमान शोध के लिए उदयपुर की कच्ची बस्तियाँ हमारा क्षेत्र है|

इस अध्ययन की जानकारी प्राप्त करने के लिए सर्वेक्षण में उदयपुर की 4 सबसे ज्यादा जनसंख्या वाली कच्ची बस्तियों को चुना गया है | उदयपुर की कच्ची बस्तियों की जनसंख्या 47636 हैं जो कुल जनसंख्या का लगभग 11 प्रतिशत हैं|

2.2.2 शोध अन्तराल

कच्ची बस्तियों की आर्थिक दशा को पिछड़ी हुई होती है| लेकिन हर क्षेत्र की अपनी विशेषता होती है| उदयपुर क्षेत्र की कच्ची बस्ती की अपनी एक अलग विशेषता है| उदयपुर की कच्ची बस्तियों की सामाजिक-आर्थिक स्थिति, जीवन स्तर पर अभी तक कोई शोध नहीं हुआ है इसलिए उदयपुर की कच्ची बस्तियों की इस विशेषता को जानने के लिए इस विषय को चुना गया है|

2.2.3 अध्ययन की अवधि

प्रस्तुत अध्ययन वर्ष 2018-2019 के जनवरी से जून माह के मध्य किया गया है| इस अवधि में साक्षात्कार अनुसूची का उपयोग करके प्रतिदर्श में उत्तरदाताओं से उनकी सामाजिक, आर्थिक, आय, रोजगार तथा स्वास्थ्य सम्बन्धी जानकारियां प्राप्त की गई हैं|

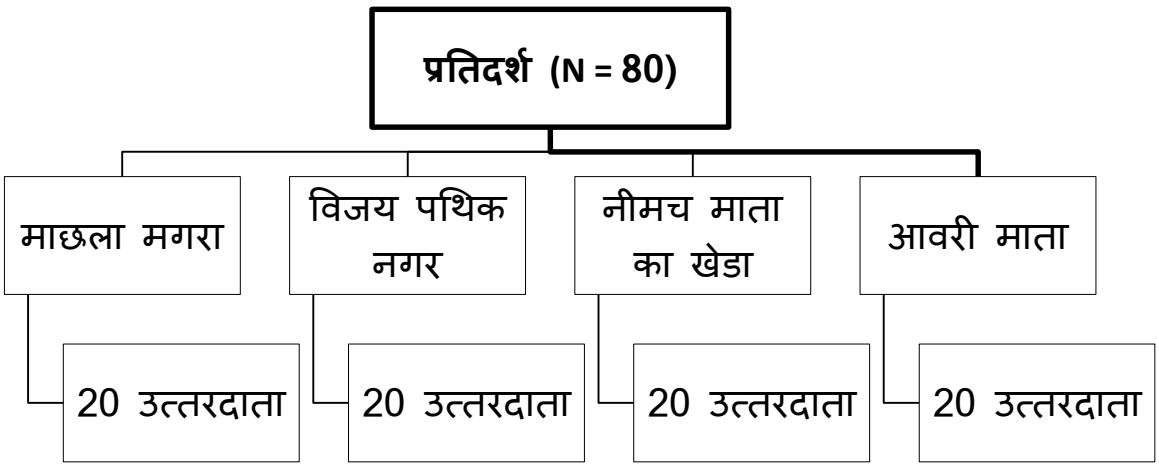
2.2.4 शोध का प्रतिदर्श प्रारूप

उदयपुर की शहर की कच्ची बस्तियों का अध्ययन करने के लिए कच्ची बस्तियों की सूचना इंट्रीम डवलप्मेंट प्लान (2009) द्वारा किये गए शोध की रिपोर्ट के द्वारा एकत्रित की गयी है| जिससे पता चलता है कि उदयपुर शहर में 39 कच्ची बस्तियाँ पाई जाती है| इन बस्तियों में 9529 मकान हैं तथा इनमें निवास करने वाले लोगों की संख्या 47376 है जो कि कुल जनसंख्या की 11 प्रतिशत है|

इस शोध में द्विस्तरीय प्रक्रिया को अपनाया गया है| उदयपुर की कच्ची बस्तियों में जनसंख्या के आधार पर विभिन्नताएं पाई जाती हैं| इस कारण से सबसे आधिक जनसंख्या वाली उदयपुर की चार कच्ची बस्तियों को प्रतिदर्श में चयनित किया गया है| ये कच्ची बस्तियाँ हैं -माछला मगर, विजय पथिक नगर, नीमच खेड़ा, आवरी माता कच्ची बस्ती |

इस चुनाव के पश्चात् प्रत्येक कच्ची बस्ती से 20 उत्तरदाता का चयन दैव प्रतिदर्श के आधार पर किया गया है| ताकि कच्ची बस्तियों के निवासियों की आर्थिक व सामाजिक स्थितियों की तथा समस्याओं की सम्पूर्ण जानकारी प्राप्त की जा सके|

आरेख 2.1: अध्ययन का प्रतिदर्श प्रारूप



2.2.5 आंकड़ों का संकलन

प्रस्तुत अध्ययन प्राथमिक आंकड़ों तथा द्वितीयक आंकड़ों पर आधारित है| प्राथमिक आंकड़ों का संकलन करने के लिए प्रत्यक्ष-व्यक्तिगत अनुसूची रीति द्वारा निदर्श परिवारों से जानकारियां हासिल की गयी हैं|

प्रतिदर्श परिवारों के सामाजिक, आर्थिक, आय, रोजगार, जीवन स्तर एवं स्वास्थ्य से सम्बन्धित आंकड़ों का संकलन करने के लिए अनुसूची का प्रयोग किया गया है |

अनुसूची के अंतर्गत उदयपुर की कच्ची बस्ती में रहने वाले निवासियों से सामाजिक यथा उनकी आयु, शिक्षा, परिवार के सदस्यों आदि के बारे में तथा आर्थिक, रोजगार सम्बन्धी तथा परिवार में उपस्थित सभी प्रकार की सुविधाओं यथा कूलर, पंखा, लैंडलाइन, मोबाइल फ़ोन आदि के बारे में प्रश्न पूछकर आंकड़ों को एकत्रित किया गया है |

द्वितीयक आंकड़ों के लिए किताबों, शोध लेखों, नगर निगम रिपोर्ट्स, यू एन रिपोर्ट, जनगणना संगठन आदि के आंकड़ों का उपयोग किया गया है|

2.2.6 आंकड़ों का विश्लेषण

प्रतिदर्श द्वारा चुने हुए आंकड़ों का विश्लेषण करने के लिए निम्न विधियों का प्रयोग किया गया है|

2.2.6.1 विवरणात्मक सांख्यिकीय विधियाँ: माध्य, मध्यिका, आवृत्ति, औसत, विचलन आदि का उपयोग किया गया है |

2.2.6.2 जीवन स्तर सूचकांक- शोध के अंतर्गत उदयपुर की कच्ची बस्ती में निवास करने वाले लोगों के जीवन स्तर का पता लगाने के लिए निवासियों के द्वारा शौचालय, रसोईघर, मकान सम्बंधित स्थिति तथा परिवार में उपलब्ध साधनों आदि सम्बन्धित आंकड़ों को एकत्रित कर जीवन स्तर सूचकांक की गणना की गयी है| इस हेतु भारित जीवन स्तर सूचकांक विधि का प्रयोग किया गया है| इस विधि के अंतर्गत जो निवासी उन उपलब्ध सुविधाओं का उपयोग कर रहे हैं उन्हें प्रत्येक वस्तु के लिए 10 अंक भार के रूप में दिए गए हैं और जो उनका उपयोग नहीं कर रहे हैं उन्हें 0 प्रदान किया गया है तथा अंत में कुल भार से विभाजित कर दिया गया है| इस प्रकार परिगणित जीवन स्तर सूचकांक का अधिकतम मान 100 एवं न्यूनतम मान 0 ही प्राप्त हो सकता है|

जीवन स्तर के माध्यम से कच्ची बस्तियों के निवासियों के जीवन स्तर, प्रतिदर्श द्वारा चुनी गयी कच्ची बस्तियों के जीवन स्तर का तुलनात्मक अध्ययन किया गया

है| साथ ही उन्हें उच्च, माध्यम एवं निम्न जीवन स्तर तीन श्रेणियों में वर्गीकृत किया गया है|

2.2.6.3 परिकल्पना परीक्षण- इस अध्याय में जिन परिकल्पनाओं का परीक्षण करना है उसके लिए काई-वर्ग परिक्षण का उपयोग किया गया है|

इसके अतिरिक्त आंकड़ों के प्रस्तुतीकरण के लिए विभिन्न प्रकार की सारणियों एवं आरेखों का भी उपयोग किया गया है| आंकड़ों का विश्लेषण करने के लिए सॉफ्टवेयर SPSS (संस्करण 21) का भी उपयोग किया गया है|

2.2.7 परिकल्पना

प्रस्तुत अध्ययन हेतु कुछ शोध परिकल्पनाएँ ली गयी हैं | परीक्षण हेतु मानी गयी शून्य परीकल्पनाएँ निम्नानुसार हैं -

1. उदयपुर की कच्ची बस्ती में रहने वाले निवासी सामाजिक व आर्थिक रूप से पिछड़े हुए नहीं हैं|
2. उदयपुर की कच्ची बस्ती के निवासियों का जीवन स्तर का सूचकांक निम्न नहीं है|
3. उदयपुर कच्ची बस्ती से लिए गए सभी प्रतिदर्शों के जीवन स्तर सूचकांक में कोई अंतर नहीं हैं|
4. शिक्षा का जीवन स्तर पर प्रभाव नही पड़ता है|

2.2.8 अध्ययन की रूपरेखा

1. अध्ययन का परिचय
2. साहित्य-पुनरावलोकन एवं शोध प्रविधि
3. उदयपुर का सामान्य परिचय
4. उदयपुर की कच्ची बस्तियों के निवासियों का सामाजिक-आर्थिक स्तर
5. उदयपुर की कच्ची बस्तियों के निवासियों के जीवन स्तर का मूल्यांकन
6. निष्कर्ष, समस्याएँ एवं सुझाव|

इन अध्यायों का विस्तृत वर्णन प्राक्कथन में कर दिया गया है|

2.2.9 शोध की परिसीमाएँ

इस अध्ययन में समयावधि तथा संसाधन कम होने से छोटा प्रतिदर्श लिया गया है| अध्ययन का क्षेत्र उदयपुर तक ही सीमित किया गया है| यदि समय व संसाधन अधिक होते तो उदयपुर की कच्ची बस्तियों की तुलना राज्य के अन्य महानगरों से की जाती जिससे अध्ययन को अधिक सार्थक बनाया जा सकता था|

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अध्याय-3

उदयपुर का सामान्य परिचय

3.1 उदयपुर शहर का सामान्य परिचय

उदयपुर एक शाही शहर है जो सदियों से मेवाड़ शासकों की राजधानी थी। उदयपुर अपने सुरम्य परिवेश और उसके शाही अतीत के लिए जाना जाता है। उदयपुर शहर को भारत का दूसरा कश्मीर माना जाता है। जो अरावली पर्वत की खूबसूरती व हरियाली से घिरा हुआ है। विभिन्न प्राचीन स्मारकों, विशाल महलों, वास्तुशिल्प मंदिरों और खूबसूरत झीलों ने पर्यटकों को आकर्षित किया है। ऐतिहासिक, सांस्कृतिक, सामाजिक और राजनैतिक दृष्टि से महत्वपूर्ण इस शहर केवल भारत देश वरन् सम्पूर्ण विश्व में अपनी पहचान बनाई है।

3.1.1 उदयपुर की ऐतिहासिक पृष्ठभूमि

तत्कालीन मेवाड़ रियासत की राजधानी उदयपुर देशी रजवाड़ों के समय अपने शौर्य व वीरता के कारण चर्चा में रहा। इसका गौरव पूर्ण इतिहास, प्राकृतिक सौदर्यता, धरातलीय विशिष्टता, प्रगतिशील काल के अवशेष वर्तमान सांस्कृतिक तथा शोध केन्द्र लोगों के आकर्षण का केन्द्र रहते हैं।

सुरक्षा व दुश्मनों के लगातार हमलों के कारणों से मेवाड़ रियासत की राजधानी निरंतर बदलती रही। आटोर (भीण्डर), घाटपुर (आहाड़), कुंभलगढ़, नागदा व चावण्ड आदि के साथ उदयपुर भी मेवाड़ की राजधानी रही। अतीत में उदयपुर में पाषाणयुगीन सभ्यता के अवशेष पाए गए हैं।

3.1.1.1 नगर की स्थापना

इस शहर की उत्पत्ति के पीछे एक किवंदती व एक इस तरह की बात है। एक बार महाराणा उदय सिंह अरावली पर्वत में अपने शिकार अभियान पर थे तभी उनकी मुलाकात पवित्र ऋषि से हुई। ऋषि ने राजा का उपजाऊ घाटी में से एक राज्य स्थापित करने की सलाह दी, जो ऊँची अरावली पहाड़ियों से सुरक्षित होगा।

इसके बाद, महाराण उदय सिंह ने 1557 एडी में उदयपुर की आधारशिला रखी। त्याग, बलिदान, वीरता, शौर्यता की अनुपम मिसाल महाराणा प्रताप के पिता तथा पन्नाधाय के त्याग से रक्षित महाराणा उदयसिंह ने 1559 में उदयपुर की स्थापना की। इसलिए उदयसिंह के नाम से इस शहर का नामकरण किया गया। लगातार दुश्मनों से आक्रमण के कारण राजधानी को सुरक्षित स्थान पर स्थांतरित करने के उद्देश्य से इस नगर की स्थापना हुई। सन् 1572 में महाराणा उदयसिंह की मृत्यु के बाद उनके पुत्र महाराणा प्रताप का राज्य अभिषेक हुआ। यह एक मात्र ऐसे शासक थे, जिन्होंने मुगलों की अधीनता स्वीकार नहीं की। उस समय से उदयपुर पूर्णरूप से विकसित हुआ। धीरे-धीरे जब मुगल साम्राज्य को कमजोर कर दिया गया तो सिसोदिया ने अपनी आजादी जारी की। उदयपुर मेवाड़ की राजधानी बना रहा, जब तक कि सन् 1818 में यह ब्रिटिश भारत की रियासत बन गया। जब सन् 1947 में भारत स्वतंत्र हुआ, जब उदयपुर के महाराणा भूपालसिंह राजस्थान के एकीकरण के समय प्रमुख रहे। सन् 1948 में संयुक्त राज्य राजस्थान बनने के साथ, पूर्व रियासती ठिकानों को मिलाकर उदयपुर जिले का गठन हुआ।

3.1.2 उदयपुर की भौगोलिक स्थिति

उदयपुर 577 मीटर की ऊँचाई पर, अरावली पर्वत की छाया में टिकी हुई है परंतु पिछोला झील इसके पूर्वी भाग पर स्थिति है। अरावली रेंज की तलहटी में स्थित उदयपुर गुजरात व मध्य प्रदेश की सीमा के पास दक्षिण राजस्थान में स्थित है। उदयपुर जिले का विस्तार 23°46' से 26° उत्तरी अक्षांश तथा 73° से 76°35' पूर्वी देशान्तर के मध्य है।

3.1.3 जलवायु

उदयपुर का तापमान सामान्यतया गर्मियों के दौरान लगभग 30°-40°c रहता है| जनवरी के सबसे ठंडे महीने के दौरान दिन 28.3 डिग्री सेल्सियस के आसपास अधिकतम तापमान के साथ उज्जवल, धूप तथा गर्म होते हैं। सुबह, शाम तथा रात का तापमान न्यूनतम 11.°c के आसपास रहता है। मानसून जुलाई माह में आता है तथा औसत वार्षिक वर्षा लगभग 637 मिमी है।

3.2 जनसंख्या

जनगणना 2011 के अनुसार उदयपुर शहर की कुल जनसंख्या 451,100 है जिसमें पुरूष तथा स्त्री की संख्या क्रमशः 233,959 तथा 217,141 है। इनमें अनुसूचित जाति की जनसंख्या 47,308 तथा अनुसूचित जनजाति की जनसंख्या 22,633 है। जनसंख्या घनत्व 262 व्यक्ति प्रति वर्ग कि.मी. है।

2001 में गाँवों के रूप में वर्गीकृत बेदला, बडगांव, भुवाना और बिचरी जनगणना 2011 के अन्तर्गत शहर बन गए। इनकी विकास दर में भारी बदलाव आया।

3.3 साक्षरता दर

उदयपुर जिले की कुल साक्षरता दर जनगणना 2011 के अनुसार 89.7 प्रतिशत है। जिसमें से पुरूष साक्षरता 94.47 प्रतिशत तथा महिला साक्षरता 84.52 प्रतिशत है।

3.4 लिंगानुपात

UMC, दशकों में लिंगानुपात में काफी सुधार हुआ है। 1981 में यह 844 था। यह शहर में एक स्वस्थ्य लिंग रचना को इंगित करता है। 2001-11 के दशक के दौरान राज्य का लिंगानुपात 922 से बढ़कर 928 हो गया (जनगणना संगठन के द्वारा)।

3.5. अनुसूचित जाति व जनजाति जनसंख्या

शहर की एक बड़ी आबादी अनुसूचित जाति व जनजाति की है। जनगणना संगठन 2011 के अनुसार, उदयपुर की जनसंख्या अनुसूचित जाति की 0.47 लाख तथा अनुसूचित जनजाति की जनसंख्या 0.22 लाख है। यह क्रमशः कुल जनसंख्या का 10 प्रतिशत व 5 प्रतिशत है। अनुसूचित जाति की जनसंख्या 2001 में 0.36 लाख थी तथा अनुसूचित जनजाति की जनसंख्या 0.18 लाख थी।

3.6 उदयपुर शहर की कच्ची बस्तियाँ

बढ़ते शहरीकरण, औद्योगिकरण के कारण नकारात्मक परिणाम पैदा हुए हैं। जिनका परिणाम सार्वजनिक उपयोग में कमी, आवास में कमी व भीड़-भाड़ को पैदा

करता है। शहरी क्षेत्रों में, शहरी स्थानीय निकायों द्वारा आयोजित कच्ची बस्तियों के प्रकार अधिसूचित, मान्यता प्राप्त तथा पहचान के आधार पर की जाती है।

सभी अधिसूचित शहरों में अधिसूचित कच्ची बस्ती स्लम एक्ट के तहत आते है। कच्ची बस्तियाँ जो शहरी स्थानीय निकायों द्वारा मान्यता प्राप्त है, लेकिन अधिसूचित नहीं है वह राज्य सरकार द्वारा 'गैर-अधिसूचित स्लम क्षेत्र'' है।

3.6.1 उदयपुर में कच्ची बस्तियों की संख्या तथा जनसंख्या

Intrim City developement Plan- udaipur द्वारा आयोजित सर्वेक्षण 2009 के अनुसार शहर के अंतर्गत 39 कच्ची बस्तियाँ हैं। इन कच्ची बस्तियों में 9529 मकान तथा 47363 जनसंख्या निवास करती हैं जो कुल जनसंख्या का 11 प्रतिशत है। गरीबी रेखा से नीचे जीवनयापन करने वाले लोग कुल जनसंख्या के 14 प्रतिशत हैं। इन कच्ची बस्तियों की जनसंख्या व संख्या को निम्न सारणी द्वारा समझा जा सकता है-

सारणी 3.1: उदयपुर की कच्ची बस्तियों की जनसंख्या

क्रमसंख्या	कच्ची बस्ती का नाम	जनसंख्या	क्रमसंख्या	कच्ची बस्ती का नाम	जनसंख्या
1	आवरी माता	2913	21	माली कॉलोनी	20
2	अम्बामाता हरिजन बस्ती	818	22	मनोहरपुरा	1196
3	अम्बा वागड़	1546	23	मठ मादड़ी	1419
4	अम्बेडकर नगर	430	24	नीमचमाता का खेड़ा	3030
5	बागडी बस्ती	1100	25	नीमचखेड़ा	385
6	बंजारा बस्ती	1024	26	ओड बस्ती	578
7	भीलू राणा	2481	27	पानेरियों की मादड़ी	658

8	भोपा मगरी	1825	28	रामसिंह जी बाड़ी	633
9	कोमी एकता	641	29	राताखेत	734
10	गाँधीनगर हरिजन बस्ती	1299	30	रूप नगर	1394
11	गोरर्धनविलास, नही बस्ती	64	31	रैगर कॉलोनी	30
12	हनुमान कॉलोनी	1138	32	शहीदभगत सिंह	2761
13	इंदिरानगर,बीड़ा	1038	33	सज्जन नगर	1996
14	इंदिरा कॉलोनी	952	34	शांतिनगर	1063
15	खेमपुरा कच्चीबस्ती	306	35	सुखाड़िया नगर	571
16	कालबेलिया कॉलोनी	394	36	विजय पथिक नगर	3113
17	कृष्णापुरा	261	37	ठाकरबापा कॉलोनी	47
18	किशनपोल डाकसिन	2913	38	टेकरी कच्चीबस्ती	145
19	लोहिया कॉलोनी	1355	39	किशनपोल उत्तर	1570
20	माछला मगरा	3795		**कुल**	**47636**

स्त्रोत- intrim city developement plan- udaipur के अन्तर्गत आयोजित सर्वेक्षण, 2009

सभी कच्ची बस्तियों का विश्लेषण करके ज्ञात हुआ कि सबसे अधिक जनसंख्या माछला मगरा, नीमच माता खेड़ा तथा विजयपर्थिक नगर में पाई जाती है।

3.6.2 वार्ड के अनुसार कच्ची बस्तियों का वर्गीकरण

सारणी 3.2: वार्ड अनुसार उदयपुर की कच्ची बस्तियाँ

क्रम संख्या	कच्ची बस्ती का नाम	वार्ड नं	क्रमसंख्या	कच्ची बस्ती का नाम	वार्ड नं
1	आवरी माता	1	21	माली कॉलोनी	26
2	अम्बामाता हरिजन बस्ती	7	22	मनोहरपुरा	1
3	अम्बा वागड़	5	23	मठमादड़ी	31
4	अम्बेडकरनगर	27	24	नीमच माता काखेड़ा	1
5	बागडी बस्ती	41	25	नीमचखेड़ा	14
6	बंजारा बस्ती	9	26	ओडबस्ती	6.7
7	भीलू राणा	4,7	27	पानेरियोंकीमादड़ी	8.9
8	भोपा मगरी	26,29	28	रामसिंहजीबाड़ी	18
9	कोमी एकता	6,7	29	राताखेत	4.8
10	गाँधीनगर हरिजन बस्ती	6,7	30	रूपनगर	15.16
11	गोरर्धनविलास, नही बस्ती	16	31	रायनगरकॉलोनी	50
12	हनुमान कॉलोनी	55	32	शहीदभगतसिंह	54
13	इंदिरा नगर,बीड़ा	19,41	33	सज्जननगर	7
14	इंदिरा कॉलोनी	19,41	34	शांतिनगर	8,23
15	खेमपुरा कच्ची बस्ती	33	35	सुखाड़िया नगर	30
16	कालबेलिया कॉलोनी	8	36	विजयपथिक नगर	8,10
17	कृष्णापुरा	53	37	ठाकरबापा कॉलोनी	50
18	किशनपोल डाकसिन	14,16	38	टेकरी कच्ची बस्ती	26
19	लोहिया कॉलोनी	7	39	किशनपोल उत्तर	14,16
20	माछला मगरा	16			

स्त्रोत- intrim city developement plan- udaipur के अन्तर्गत आयोजित सर्वेक्षण, 2009

सभी बड़ी कच्ची बस्तियाँ उदयपुर के वार्ड संख्या 54,1,8,10,4 तथा 7 में पाई जाती है। कुछ कच्ची बस्तियाँ ऐसी भी हैं जो दो वार्ड के मध्य विभाजित है। इन कच्ची बस्तियों में की विशेषता बताई गई है कि यहाँ औसतन 5 व्यक्ति एक घर में पाए जाते हैं (intrim city developement plan रिपोर्ट, 2009)

3.6.3 भारत, राजस्थान और उदयपुर शहर की कच्ची बस्तियों की तुलना

सारणी 3.3: कच्ची बस्तियों में निवास करने वाली जनसंख्या एवं उसकी विशेषताएँ

	जनसंख्या			साक्षरता दर	अनुसूचित जाति	अनुसूचित जनजाति
	व्यक्ति	पुरुष	स्त्री			
भारत	65,494,604	33,968,203	31,526,401	77.92%	13,354,080	2,216,533
राजस्थान	2,068,000	1,078,991	989,009	69.79%	582,562	100,675
उदयपुर	64,758	33,477	31,281	81.84%	11,299	7,377

स्त्रोत: जनगणना 2011

इस सारणी के अंतर्गत भारत, राजस्थान, उदयपुर की कच्ची बस्तियों की जनसंख्या की तुलना की गयी है| भारत में जनगणना 2001 के अनुसार कच्ची बस्तियों में जनसंख्या 52,371,589 थी जो 2011 में बढ़कर 65,494,604 हो गयी है| उसी प्रकार राजस्थान तथा उदयपुर में भी कच्ची बस्तियों में रहने वाले निवासियों की संख्या में वृद्धि हुई है|

राजस्थान में यह जनसंख्या 2001 में 1,206,123 थी जो 2011 में बढ़कर 2,068,000 हो गयी वहीँ उदयपुर में यह 43180 थी जो 2011 में बढ़कर 64,758 हो गयी है| वहीँ इन निवासियों के साक्षरता दर में भी वृद्धि हुई है 2001 में यह 72.2 प्रतिशत थी जो 2011 में बढ़कर 77.72 प्रतिशत हो गयी है|

सन्दर्भ:-

- https://swantours.wordpress.com
- crisil infrastructure advisory,city developement plan for udaipur,2041,june 2014, capacity building for urban developement project, ministry of urban developement, goverment of india and the world bank.
- www.udaipurmc.org
- www.crisil.com

अध्याय - 4

उदयपुर की कच्ची बस्तियों के निवासियों का सामाजिक-आर्थिक स्तर

कच्ची बस्तियाँ हमारे समाज का ही हिस्सा है| पूर्व अध्ययनकर्ताओं ने पाया कि कच्ची बस्तियों में निवासियों की आर्थिक स्थिति सही नहीं होती है| कच्ची बस्तियाँ भीड़-भाड़ से युक्त होती है तथा इनमें मूलभूत सुविधाओं की भी कमी पाई जाती है| कच्ची बस्तियों में स्वच्छ पेयजल, शौचालय तथा विभिन्न भौतिक व सामाजिक सुविधाओं का भी अभाव पाया जाता है| इसके अलावा अगर कहा जाये तो कच्ची बस्ती एक समुदाय है या एक शहरी प्रणाली की उप-प्रणाली है जिसकी विशेषता गरीबी, कमजोर आर्थिक स्थिति, उच्च आवास की कमी, भीडभाड युक्त जगह, अस्वच्छता, शौचालय की कमी, पेयजल की कमी आदि है|

किन्तु कच्ची बस्तियाँ हमारे समाज का महत्वपूर्ण हिस्सा है| देश का विकास करने के लिए इनका विकास होना जरुरी है| इसलिए शोधकर्ता द्वारा इस विषय को चुना गया है जिससे इनके बारे में अच्छी तरह से जाना जा सके| इस अध्ययन के लिए उदयपुर की कच्ची बस्तियों को चुना गया है| प्रतिदर्श क लिए उदयपुर की सबसे ज्यादा जनसंख्या वाली 4 कच्ची बस्तियों को चुना गया है|

प्रतिदर्श की आर्थिक व सामाजिक स्थिति का अध्ययन करने के लिए कच्ची बस्तियों से अनुसूची द्वारा आर्थिक व सामाजिक प्रश्नों के आधार पर आंकड़ों को एकत्रित किया गया है|

प्रस्तुत अध्याय में उदयपुर की कच्ची बस्तियों पर किये गए प्राथमिक सर्वेक्षण द्वारा संकलित आंकड़ों का विश्लेषण कर उनकी सामाजिक व आर्थिक स्थिति का पता लगाने का प्रयास किया गया है|

4.1 उदयपुर की कच्ची बस्तियों के निवासियों की सामाजिक स्थिति

सामाजिक स्थिति के अंतर्गत धर्म, जाति, लिंग आदि का पता लगाया जाता है| इस अध्ययन के अंतर्गत सामाजिक स्थिति का विश्लेषण किया गया है|

4.1.1 उदयपुर की कच्ची बस्तियों के निवासियों की धार्मिक स्थिति

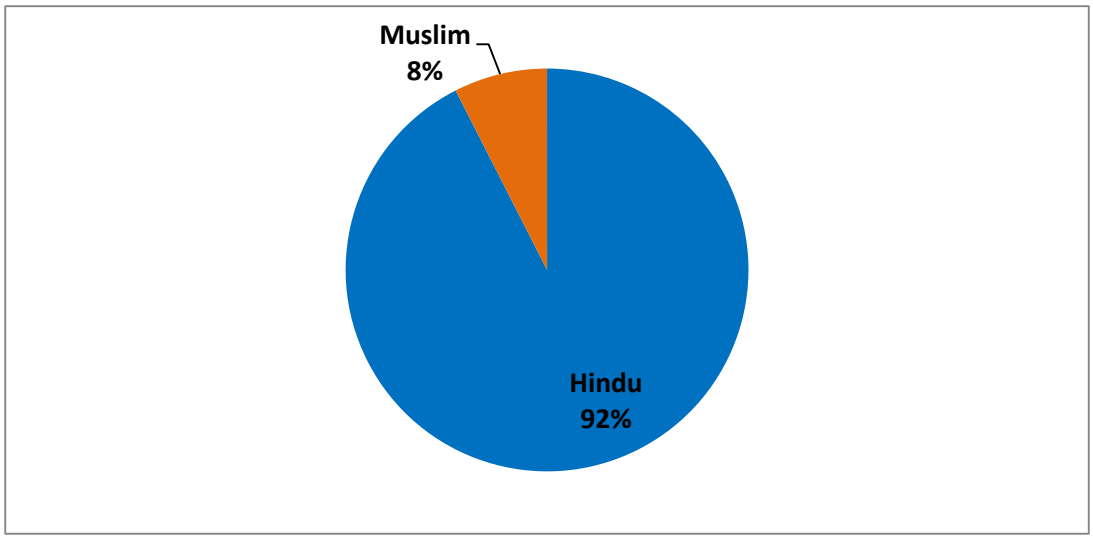
सारणी 4.1: उदयपुर की कच्ची बस्तियों के निवासियों का धर्म (n =80)

धर्म	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
हिन्दू	20	16	18	20	74
मुस्लिम	-	4	2	-	6

स्त्रोत : प्राथमिक सर्वेक्षण

आरेख-4.1: उदयपुर की कच्ची बस्तियों के सभी निवासियों की धार्मिक स्थिति

(n =80)



स्त्रोत: प्राथमिक सर्वेक्षण

भारत देश में अनेक प्रकार के धर्म पाए जाते हैं| इसलिए कच्ची बस्तियों की सामाजिक स्थिति ओर धार्मिक स्थिति को समझने के लिए प्राप्त आंकड़ों को धार्मिक विशेषता के आधार पर विश्लेषित किया गया है|

सर्वेक्षण के आधार पर पता चलता है कि शोधकर्ता द्वारा चुनी हुई प्रतिदर्श वाली कच्ची बस्तियों में सर्वाधिक परिवार हिन्दू (92.5 प्रतिशत हैं) तथा 7.5 प्रतिशत परिवार मुस्लिम धर्म के हैं | उदयपुर की कच्ची बस्तियों से प्राप्त आंकड़ों के आधार पर यह स्पष्ट होता है कि चुने हुए प्रतिदर्श में सिक्ख, ईसाई व किसी अन्य धर्म के लोग नहीं पाए गए हैं तथा यहाँ सर्वाधिक जनसंख्या हिन्दू धर्म की पाई जाती है|

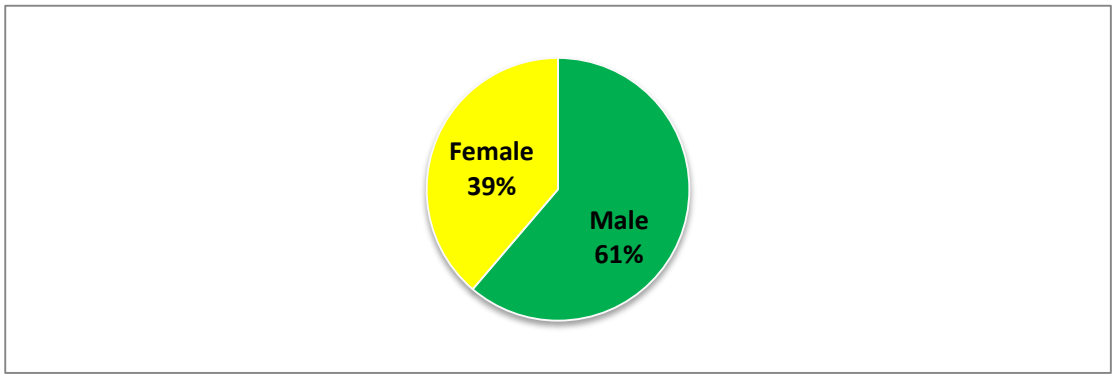
4.1.2 उदयपुर की कच्ची बस्तियों के निवासियों की लिंगानुसार स्थिति

सारणी 4.2: उदयपुर की कच्ची बस्तियों के निवासियों का लिंगानुसार वर्गीकरण (n=80)

लिंग	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
पुरुष	11	16	11	11	49
स्त्री	9	4	9	9	31

स्त्रोत:प्राथमिक सर्वेक्षण

आरेख 4.2: उदयपुर की कच्ची बस्तियों के सभी निवासियों का लिंगानुसार वर्गीकरण (n=80)



स्त्रोत: प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा कच्ची बस्तियों के आंकड़ों का अध्ययन करने पर ज्ञात होता है की कच्ची बस्तियों में महिलाओं की अपेक्षा पुरुषों की संख्या अधिक हैं| चुने हुए प्रतिदर्श

का सर्वेक्षण करने पर ज्ञात होता है कि है कि चयनित कच्ची बस्तियों में पुरुषों की संख्या 61.3 प्रतिशत है तथा वहीँ स्त्रियों की संख्या 38.8 प्रतिशत है|

ऐसा माना जाता है कि कच्ची बस्तियों में निम्न आय वर्ग वाले लोग रहतें हैं उनमें शिक्षा का भी अभाव पाया जाता है| अशिक्षा के कारण लोगों में रुढ़िवादिता पाई जाती है| जिस कारण आज भी कच्ची बस्तियों में पुरुष - स्त्री में भेद विद्यमान है| आज भी कच्ची बस्तियों में पुरुष प्रधान परिवार पाए जाते हैं| शोधकर्ता द्वारा प्रतिदर्श का विश्लेषण करने पर भी यह पाया गया कि उदयपुर की कच्ची बस्तियों में स्त्रियों की अपेक्षा पुरुषों की अधिक संख्या विद्यमान है|

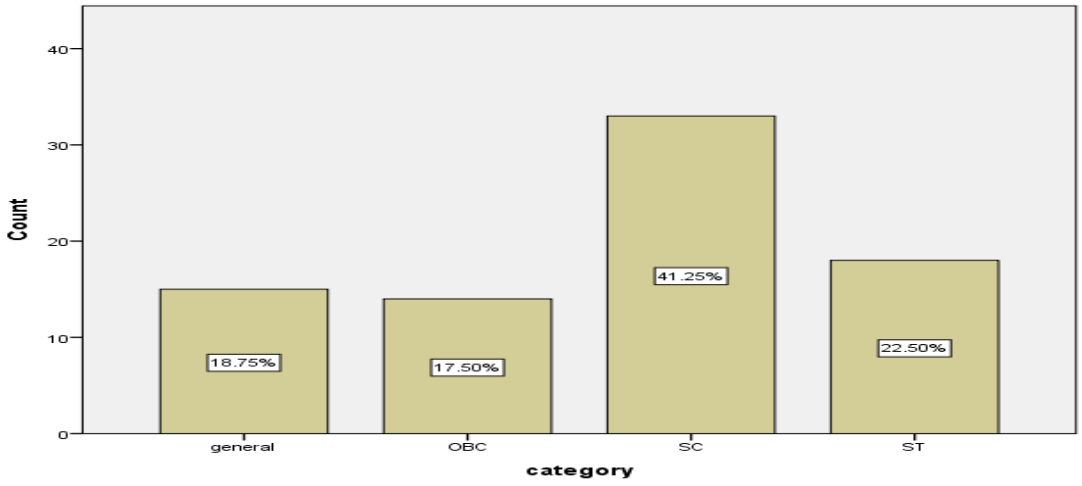
4.1.3 उदयपुर की कच्ची बस्तियों के निवासियों का जातिवार विश्लेषण

सारणी 4.3: उदयपुर की कच्ची बस्ती के निवासियों की जाति (n=80)

जाति	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
सामान्य	3	5	2	5	15
पिछड़ा वर्ग	13	6	2	3	14
अनुसूचित जाति	13	7	6	7	33
अनुसूचित जनजाति	1	2	10	5	18

स्त्रोत:प्राथमिक सर्वेक्षण

आरेख 4.3: उदयपुर की कच्ची बस्तियों के सभी निवासियों की जातिवार स्थिति (n=80)



स्त्रोत:प्राथमिक सर्वेक्षण

चयनित प्रतिदर्श के आंकड़ों को जाति के आधार पर विश्लेषित करने पर ज्ञात होता है कि कच्ची बस्तियों में सर्वाधिक जनसंख्या अनुसूचित जाति की पाई जाती है जो कि 41.3 प्रतिशत है |इन बस्तियों में अनुसूचित जनजाति 22.5 प्रतिशत, सामान्य वर्ग 18.8 प्रतिशत तथा पिछड़ा वर्ग 17.5 प्रतिशत पाया गया है| अतः प्राप्त आंकड़ों के आधार पर यह कहा जा सकता है कि उदयपुर की कच्ची बस्ती में पाई जाने वाली अधिकतर जनसंख्या अनुसूचित जाति व अनुसूचित जनजाति की है |

4.1.4 उदयपुर की कच्ची बस्तियों के निवासियों की वैवाहिक स्थिति का विश्लेषण

सारणी4.4: उदयपुर की कच्ची बस्ती के निवासियों का वैवाहिक स्तर (n=80)

वैवाहिक स्तर	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
वैवाहिक	13	17	14	15	59
अवैवाहिक	7	3	6	5	21

स्त्रोत: प्राथमिक सर्वेक्षण

चयनित प्रतिदर्श के संकलित आंकड़ों का विश्लेषण करने पर प्रतिदर्श की कच्ची बस्ती के निवासियों की वैवाहिक स्थिति का पता लगाया गया है|

उपरोक्त सारणी का अध्ययन करने पर ज्ञात होता है कि प्रतिदर्श की चुनी हुई कच्ची बस्तियों में 73.8 प्रतिशत जनसंख्या वैवाहिक हैं तथा 26.3 प्रतिशत जनसंख्या अवैवाहिक हैं|

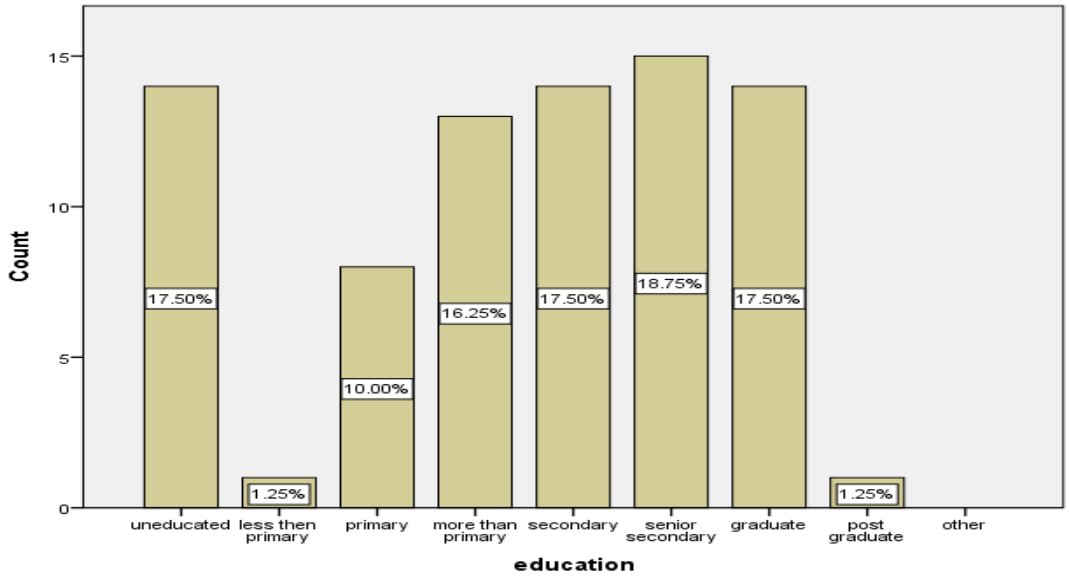
4.1.5 उदयपुर की कच्ची बस्तियों में शिक्षा की स्थिति

सारणी 4.5: उदयपुर की कच्ची बस्तियों के निवासियों का शैक्षिक स्तर (n=80)

शैक्षिक स्तर	**कच्ची बस्ती**				**योग**
	माछला मगर	**विजय पथिक नगर**	**नीमच खेड़ा**	**आवरी माता कच्ची बस्ती**	
निरक्षर	1	3	6	4	14
प्राथमिक से कम	-	-	1	-	1
प्राथमिक	4	1	3	-	8
प्राथमिक से उच्च प्राथमिक	3	4	1	5	13
माध्यमिक	5	2	4	3	14
उच्च माध्यमिक	2	7	4	2	15
स्नातक	5	3	1	5	14
स्नातकोतर	-	-	-	1	1

स्त्रोत: प्राथमिक सर्वेक्षण

आरेख 4.4 उदयपुर की कच्ची बस्तियों के सभी निवासियों का शैक्षिक स्तर(n=80)



स्त्रोत:प्राथमिक सर्वेक्षण

सारणी 4.5 व ग्राफ 4.4 द्वारा शोधकर्ता द्वारा चुनी हुई कच्ची बस्तियों के अध्ययन से यह पता चलता है कि प्रतिदर्श की कच्ची बस्तियों में साक्षरता का स्तर काफी अच्छा है |

चयनित कच्ची बस्तियों की 82.5 प्रतिशत जनसंख्या शिक्षित हैं | यहाँ केवल 17.5 प्रतिशत लोग ही अशिक्षि हैं | 10 प्रतिशत लोग प्राथमिक शिक्षा प्राप्त हैं |17.5 प्रतिशत लोग माद्यमिक शिक्षा प्राप्त हैं तथा 18.8 प्रतिशत लोग उच्च माध्यमिक शिक्षा प्राप्त कर रहे हैं |18.8 प्रतिशत लोग स्नातक तथा उच्च शिक्षा प्राप्त कर रहे हैं |

अतः स्पष्ट है कि उदयपुर की कच्ची बस्तियों का शिक्षा का स्तर काफी ऊँचा है| यहाँ के अधिकतर निवासी शिक्षित हैं|

उदयपुर की कच्ची बस्तियों में सरकारी स्कूल आदि की व्यवस्था होने के कारण शिक्षा के स्तर को ऊँचा उठाने में मदद मिली है|

4.1.6 उदयपुर की कच्ची बस्तियों के निवासियों की जातिवार शैक्षिक स्थिति

सारणी 4.6: उदयपुर की कच्ची बस्तियों के निवासियों की जातिवार शिक्षा की स्थिति

(n=80)

शिक्षा का स्तर	जाति				योग
	सामान्य	पिछड़ा वर्ग	अनुसूचित जाति	अनुसूचित जनजाति	
निरक्षर	0	2	8	4	14
प्राथमिक से कम	1	0	0	0	1
प्राथमिक	1	1	4	2	8
प्राथमिक से आधिक	2	3	6	2	13
माध्यमिक	6	2	4	2	14
उच्च माध्यमिक	2	5	3	5	15
स्नातक	2	1	8	3	14
स्नातकोतर	1	0	0	0	1
योग	15	14	33	18	80

स्त्रोत:प्राथमिक सर्वेक्षण

प्रतिदर्श के द्वारा प्राप्त आंकड़ों का विश्लेषण करने पर यह पता चलता है कि सामान्य वर्ग में निरक्षर लोगों की संख्या शून्य है तथा पिछड़ा वर्ग में 2.5 प्रतिशत लोग व अनुसूचित जनजाति में 5 प्रतिशत लोग निरक्षर है| अनुसूचित जाति में 10 प्रतिशत लोग निरक्षर पाए गए हैं| इससे यह पता लगा है कि प्रतिदर्श द्वारा चुनी हुई कच्ची बस्तियों में सर्वाधिक लोग अनुसूचित जाति में निरक्षर पाए जाते हैं| अनुसूचित जाति व जनजातियों में पिछड़ेपन के कारण इनमें शिक्षा का भी अभाव पाया गया है| प्राथमिक से कम शिक्षा ग्रहण करने वाले लोगों में भी केवल 1.25 प्रतिशत लोग

शिक्षित थे, तथा ये लोग केवल सामान्य वर्ग में ही पाए गए हैं| परन्तु देश में प्रयासों के साथ साथ शिक्षा के स्तर में भी वृद्धि हुई है तथा कच्ची बस्तियों में भी शिक्षा का स्तर बढ़ा है| शिक्षा के स्तर में वृद्धि के साथ-साथ सामान्य वर्ग के साथ-साथ अन्य वर्गों में भी शिक्षा के स्तर में भी वृद्धि हुई है|

प्रतिदर्श के विश्लेषण में यह पाया गया है कि प्राथमिक तथा प्राथमिक से अधिक शिक्षा ग्रहण करने वाले लोगों में अनुसूचित जाति में शिक्षित अधिक पाए गए हैं| प्राथमिक में 5 प्रतिशत तथा प्राथमिक से अधिक में 7.5 प्रतिशत अनुसूचित जाति वाले पाए गए हैं|

माध्यमिक शिक्षा 17.5 प्रतिशत लोग ले रहे हैं जिसमें 7.5 प्रतिशत लोग सामान्य, 2.5 प्रतिशत पिछड़ा वर्ग, 5 प्रतिशत अनुसूचित जाति व 2.5 प्रतिशत अनुसूचित जनजाति में हैं| उच्च माध्यमिक शिक्षा में सर्वाधिक लोग पिछड़ा वर्ग व अनुसूचित जनजाति का है जिनमें से प्रत्येक में 6.25 प्रतिशत लोग शिक्षित है तथा अनुसूचित जाति के 3.75 प्रतिशत लोग शिक्षित हैं| स्नातक में सर्वाधिक शिक्षा ग्रहण करने वाले 10 प्रतिशत लोग अनुसूचित जाति के है| इससे यह पता चलता है की सरकार के प्रयासों के साथ-साथ कच्ची बस्तियों में शिक्षा को लेकर जागरूकता बढ़ी है जिसके कारण आज स्नातक की शिस्क्षा ग्रहण करने वाले सर्वाधिक लोग अनुसूचित जाति के हैं| इसी के साथ सामान्य वर्ग में 2.5 प्रतिशत,1.25 प्रतिशत पिछड़ा वर्ग,3.75 प्रतिशत अनुसूचित जनजाति के लोग स्नातक शिक्षित पाए गए हैं|

स्नातकोतर शिक्षा ग्रहण करने वालों में प्रतिदर्श में केवल सामान्य वर्ग के निवासी पाए गए हैं जो 1.25 प्रतिशत हैं|

इस शोध के विश्लेषण से यह ज्ञात हुआ है कि सरकार के द्वारा विकास के क्षेत्र में प्रयासों से कच्ची बस्तियों में शिक्षा के प्रति जागरूकता बढ़ी है तथा सभी वर्गों में शिक्षा का स्तर भी बढ़ा है|

4.1.7 उदयपुर की कच्ची बस्तियों के निवासियों की आयुवार शैक्षिक स्थिति

सारणी 4.7: उदयपुर की कच्ची बस्तियों के निवासियों का आयुवार शैक्षिक स्तर

(n=80)

शैक्षिक स्तर	आयु वर्ग			योग
	18-25	26-40	41-60	
निरक्षर	0	5	9	14
प्राथमिक से कम	0	1	0	1
प्राथमिक	1	4	3	8
प्राथमिक से अधिक	7	5	1	13
माध्यमिक	2	6	6	14
उच्च माध्यमिक	5	8	2	15
स्नातक	10	3	1	14
स्नातकोतर	0	1	0	1
योग	25	33	22	80

स्त्रोत: प्राथमिक सर्वेक्षण

प्रतिदर्श के आंकड़ों का अध्ययन कर विश्लेषण करने के लिए प्रतिदर्श के विभिन्न उम्र वाले निवासियों के शैक्षिक स्तर का पता लगाया गया है|

आंकड़ों को सरलता से समझने के लिए निवासियों की आयु को वर्गों में बाँट दिया गया है|

आंकड़ों का विश्लेषण करने पर ज्ञात होता है कि चुने हुए प्रतिदर्श में 17.5 प्रतिशत लोग अशिक्षित हैं जिनमें सर्वाधिक 11.25 प्रतिशत अशिक्षित लोग 41-60 की आयु वर्ग में पाए गए हैं| 18-25 आयु वर्ग में कोई अशिक्षित नहीं है इससे ये पता चलता है कि पिछले कुछ वर्षों में शिक्षा का स्तर बढ़ा है जिससे लोग शिक्षा का महत्व समझकर शिक्षा की ओर अग्रसर हुए हैं|

जिन निवासियों के शिक्षा का स्तर प्राथमिक है वह सबसे ज्यादा 5 प्रतिशत लोग 26-40 आयु वर्ग में पाए जाते हैं| वहीँ 18-25 आयु वाले 1.25 प्रतिशत तथा 41-60 आयु वाले 3.75 प्रतिशत लोग प्राथमिक शिक्षा वाले पाए गए हैं |

8.75 प्रतिशत 18-25 आयु वर्ग वाले,6.25 प्रतिशत 26-40 आयु वाले,1.25 प्रतिशत 41-60 आयु वाले प्राथमिक से आधिक शिक्षा वाले पाए गए हैं|

माध्यमिक शिक्षा ग्रहण करने वालों में 2.5 प्रतिशत 18-25 आयु वाले तथा 26-40 तथा 41-60 आयु वाले प्रत्येक वर्ग में 7.5 प्रतिशत लोग हैं|

उच्च माध्यमिक शिक्षा ग्रहण करने वाले लोगों में 10 प्रतिशत लोग 26-40 आयु वाले, 6.25 प्रतिशत 18-25 आयु वाले, 2.5 प्रतिशत 41-60 आयु वाले हैं|

18-25 आयु वाले 12.5 प्रतिशत निवासी स्नातक शिक्षा ग्रहण कर रहे हैं|26-40 आयु वाले 3.75 प्रतिशत लोग, 1.25 प्रतिशत 41-60 आयु वाले निवासी प्रतिदर्श में स्नातक शिक्षा ग्रहण करने वाले पाए गए हैं|

स्नातकोतर शिक्षा प्राप्त करने वाले केवल 1.25 प्रतिशत लोग हैं जो 26-40 आयु वर्ग में पाए गए हैं|

इस विश्लेषण से यह ज्ञात होता है कि समय के साथ प्रत्येक आयु वर्ग में शिक्षा की जागरूकता बढ़ी है तथा पहले के मुकाबले कच्ची बस्तियों में भी लोग उच्च शिक्षा प्राप्त कर रहे हैं |

4.1.8 उदयपुर की कच्ची बस्तियों के निवासियों की लिंगानुसार शैक्षिक स्थिति

सारणी4.8: उदयपुर की कच्ची बस्तियों के निवासियों की लिंगानुसार शैक्षिक स्थिति (n=80)

शैक्षिक स्तर	लिंग		योग
	पुरुष	स्त्री	
निरक्षर	7	7	14
प्राथमिक से कम	1	0	1
प्राथमिक	5	3	8
प्राथमिक से ज्यादा	6	7	13
माध्यमिक	10	4	14
उच्च माध्यमिक	11	4	15
स्नातक	8	6	14
स्नातकोतर	1	0	1
कुल	49	31	80

स्त्रोत: प्राथमिक सर्वेक्षण

ऐसा माना जाता है कि देश में पुरुष प्रधान समाज पाया जाता है| तथा महिलाओं की स्थिति समाज में पुरुषों की अपेक्षा कमजोर पाई जाती है| रुढ़िवादिता के कारण महिलाओं की शिक्षा पर अधिक ध्यान नहीं दिया जाता है| इसी का विश्लेषण करने के लिए प्रतिदर्श में यह जांच किया गया है कि कच्ची बस्तियों में लिंग के अनुसार शैक्षिक स्थिति कैसी है?

प्राप्त आंकड़ों के विश्लेषण के आधार पर यह पाया गया है कि निरक्षर होने की स्थिति में पुरुष व महिलाएं समान है|

प्राथमिक से कम में केवल 1.25 प्रतिशत पुरुषों ने ही शिक्षा ग्रहण की है| प्राथमिक शिक्षा के अंतर्गत भी यह पाया गया है कि 6.25 प्रतिशत पुरुष तथा 3.75 प्रतिशत महिलाऐं शिक्षा ग्रहण कर चुकी हैं| माध्यमिक स्तर की शिक्षा में भी पुरुष 12.5 प्रतिशत सर्वाधिक तथा महिलाएं 5 प्रतिशत ही पाई गयी हैं| उच्च माध्यमिक स्तर में पुरुष 13.75 प्रतिशत तथा 5 प्रतिशत महिलाएं शिक्षित हैं|

स्नातक स्तर पर भी यह पाया गया है कि 10 प्रतिशत पुरुष सर्वाधिक हैं तथा वहीँ 7.5 प्रतिशत महिलाएं शिक्षित हैं |

स्नातकोतर शिक्षा में केवल 1.25 प्रतिशत पुरुष ही शिक्षित हैं ऐसा पाया गया है|

इस विश्लेषण के निष्कर्ष के आधार पर यह कहा जा सकता है कि आज भी कच्ची बस्तियों में स्त्री-पुरुष का भेद विद्यमान है| महिलाओं की स्थिति पुरुषों की अपेक्षा काफी कमजोर है| उच्च शिक्षा के अंतर्गत भी महिलाओं की स्थिति पुरुषों से काफी पिछड़ी हुई है| कच्ची बस्तियों में महिला शिक्षा को बढाने के लिए प्रयास किये जाने चाहिए| महिलाओं को सरकार द्वारा दी जा रही सुविधाओं का लाभ उठाना चाहिए| महिलाओं को शिक्षित कर समाज में स्त्री-पुरुष के मध्य विद्यमान असमानता को समाप्त किया जा सकता है|

4.1.9 उदयपुर की कच्ची बस्तियों में पारिवारिक स्थिति

सारणी 4.9: उदयपुर की कच्ची बस्तियों में परिवार के सदस्यों की संख्या (n=80)

कुल सदस्य	कच्ची बस्तियाँ				योग
	माछला मगर	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
0-2	1	1	-	-	2
2-4	4	5	8	9	26
4-6	9	9	9	9	36
6-8	3	1	2	2	8
8-10	2	1	1	-	4
10 से अधिक	1	3	-	-	4

स्त्रोत :प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा संकलित आंकड़ों के विश्लेषण तथा इस सारणी के अध्ययन द्वारा यह ज्ञात होता है कि उदयपुर की कच्ची बस्तियों में (चयनित प्रतिदर्श में) संयुक्त तथा एकल दोनों प्रकार के परिवार पाए जाते हैं| चयनित कच्ची बस्तियों में सर्वाधिक 5 सदस्यों वाले परिवार पाए जाते हैं| 5 सदस्यों वाले परिवार 33.8 प्रतिशत तक पाए जाते हैं तथा 4 सदस्यों वाले परिवार 25 प्रतिशत तक पाए जाते हैं|

चयनित कच्ची बस्तियों में संयुक्त परिवार जिनमें परिवार सदस्यों की संख्या 10-20 सदस्यों तक हैं वो भी 9 प्रतिशत तक पाए जातें हैं|

अतः इस विश्लेषण के निष्कर्ष के आधार पर यह कहा जा सकता है कि प्रतिदर्श में एकल तथा संयुक्त दोनों प्रकार के परिवार पाए जाते हैं| इस प्रतिदर्श में उन परिवारों की संख्या सबसे अधिक पाई जाती है जिनमें सदस्यों की संख्या 5 है|

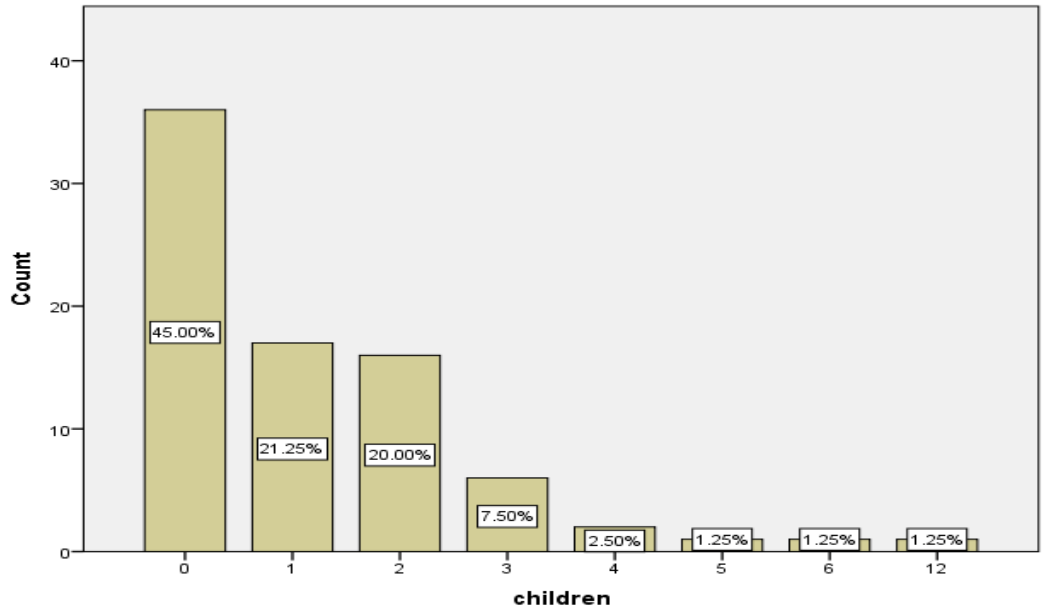
4.1.10 उदयपुर की कच्ची बस्तियों के परिवारों में बच्चों की संख्या का विश्लेषण

सारणी 4.10: उदयपुर की कच्ची बस्तियों के परिवारों में बच्चों की संख्या (n=80)

बच्चों की संख्या	कच्ची बस्तियाँ				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
0	7	9	11	9	36
1	4	4	3	6	17
2	4	4	4	4	16
3	4	-	1	1	6
4	-	1	1	-	2
5	1	-	-	-	1
6	-	1	-	-	1
12	-	1	-	-	1

स्त्रोत: प्राथमिक सर्वेक्षण

आरेख 4.5: उदयपुर की कच्ची बस्तियों के सभी परिवारों में बच्चों की संख्या का प्रतिशत आधार पर वर्गीकरण



स्त्रोत: प्राथमिक सर्वेक्षण

ऐसा माना गया है कि कच्ची बस्तियों में एकल तथा संयुक्त दोनों प्रकार के परिवार पाए जाते हैं| तथा कच्ची बस्तियों में ही वैवाहिक तथा अवैवाहिक दोनों प्रकार के निवासी जाते हैं| परिवारों में बच्चों की संख्या भी विश्लेषण की दृष्टि से महत्वपूर्ण स्थान रखती है| इसके द्वारा यह भी पता लगाया जा सकता है कि परिवार में बच्चों की संख्या कितनी है तथा परिवार नियोजन के प्रति परिवारों तथा कच्ची बस्तियों का दृष्टिकोण कैसा है?

इसलिए प्रतिदर्श के आंकड़ों के एकत्रीकरण के पश्चात् उसके परिवारों को बच्चों की संख्या के आधार पर भी विश्लेषित किया गया है| जिससे विभिन्न प्रकार के निष्कर्षों के बारे में भी जाना जा सकता है|

प्रतिदर्श द्वारा चुनी हुई कच्ची बस्तियों से प्राप्त आंकड़ों के विश्लेषण तथा उपरोक्त सारणी का अध्ययन करने पर ज्ञात हुआ है कि चयनित कच्ची बस्तियों में 45 प्रतिशत परिवारों में बच्चों की संख्या शून्य है |

1 बच्चे व 2 बच्चों वाले परिवारों की संख्या क्रमशः 21.3 प्रतिशत तथा 20 प्रतिशत हैं | 3 व 4 बच्चे वाले परिवारों की संख्या 7.5 प्रतिशत व 2.5 प्रतिशत है |इन कच्ची बस्तियों में 12 बच्चों वाले भी परिवार पाए जाते हैं | इतने बच्चों की संख्या संयुक्त परिवारों में पाई जाती हैं | इन परिवारों की कच्ची बस्ती में संख्या 1.3 प्रतिशत पाई गयी है|

अतः इस विश्लेषण से यह स्पष्ट होता है कि कच्ची बस्ती में शिक्षा व उचित परिवार नियोजन के कारण परिवारों में बच्चों की संख्या में कमी पाई गयी है|

तथा इससे यह भी निष्कर्ष प्राप्त होता है कि प्रतिदर्श में एकल परिवारों की संख्या अधिक पाई जाती है जिसके कारण यहाँ अधिकतर परिवारों में 3-4 बच्चे पाए जाते हैं|

4.1.11 उदयपुर की कच्ची बस्तियों में रहने वाले निवासियों के निवास-अवधि का विश्लेषण

सारणी 4.11: उदयपुर की कच्ची बस्तियों में रहने वाले निवासियों की निवास अवधि (n=80)

निवास करने के वर्ष	कच्ची बस्तियाँ				योग
	माछला मगर	विजय पथिक नगर	नीमच माता का खेड़ा	आवरी माता	
1 वर्ष से कम	-	-	-	-	-
1 से 5 वर्ष	-	-	-	1	1
5 से 10 वर्ष	1	-	-	1	2
10 से 15 वर्ष	-	-	-	-	-
15 वर्षों से अधिक	19	20	19	19	77

स्त्रोत:प्राथमिक सर्वेक्षण

इस विश्लेषण के अंतर्गत प्रतिदर्श में रह रहे निवासियों के वहां रहने के वर्षों के आधार पर इन एकत्रित आंकड़ों का वर्गीकरण किया गया है| अनुसूची द्वारा प्राप्त आंकड़ों के आधार पर यह ज्ञात हुआ है कि प्रतिदर्श में रहने वाले 96.3 प्रतिशत निवासी यहाँ 15 वर्षों से भी अधिक समय से निवास कर रहे हैं| यहाँ पर निवास करने वाले कुछ निवासी 2.5 प्रतिशत जो यहाँ 5-10 वर्षों से निवास कर रहे हैं| तथा 1.3 प्रतिशत निवासी ऐसे हैं जो 1-5 वर्षों से रह रहे हैं|

इस विश्लेषण के निष्कर्ष के आधार पर यह कहा जा सकता है कि प्रतिदर्श में रहने वाले अधिकतर निवासी यहाँ 15 वर्षों से भी अधिक से रह रहें हैं| यहाँ निवास करने वाले अधिकतर निवासी निम्न मध्यम तथा मध्यम आय वाले हैं जो अपने परिवार के सदस्यों का भरण-पोषण कर पाते हैं| तथा महँगी आवास इकाइयों के कारण वह इन कच्ची बस्तियों से निकल नहीं पाते हैं| जिसके कारण यहाँ रहने वाले निवासी 15 वर्षों से भी अधिक से यहाँ पर निवास कर रहे हैं|

4.2 उदयपुर की कच्ची बस्तियों के निवासियों की आर्थिक स्थिति

4.2.1 उदयपुर की कच्ची बस्तियों के निवासियों की आय

सारणी 4.12: प्रतिदर्श की कच्ची बस्तियों के निवासियों की मासिक आय (n=80)

मासिक आय	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
5000 से कम	-	-	4	1	5
5000-10000	3	3	3	2	11
10000-15000	5	-	4	3	12
15000-20000	3	5	6	2	16
20000-25000	2	4	1	2	9
25000-30000	2	-	1	1	4
30000-35000	3	2	1	6	12
35000-40000	-	2	-	-	2
40000 से आधिक	2	4	-	3	9

स्त्रोत: प्राथमिक सर्वेक्षण

सारणी 4.12 के आधार पर बताया जा सकता है कि प्रतिदर्श अर्थात् उदयपुर की कच्ची बस्तियों में निवास करने वाले लोगों में असमान आय वितरण पाया गया है | कच्ची बस्ती में निवास करने वाले कुछ लोगों की आय तो अधिक है तथा कुछ लोगों की मासिक आय बहुत कम हैं|

चयनित कच्ची बस्तियों में 6.3 प्रतिशत परिवार ऐसे हैं जो जिनकी मासिक आय 5000 रूपये से भी कम है| इन परिवारों को अत्यधिक कठिनाई में अपना जीवन व्यतीत करना पड़ता है|

सर्वेक्षण के आधार पर यह ज्ञात होता है कि कच्ची बस्ती में 5000-10000 आय वाले लोग 13.8 प्रतिशत, 10000-15000 आय वर्ग वाले 15 प्रतिशत, 15000-20000 तक की आय वाले लोग 20 प्रतिशत हैं | वहीँ 40000 रूपए तथा उससे आधिक आय वाले लोग 11.3 प्रतिशत है|

चुने हुए प्रतिदर्श के निष्कर्ष के आधार पर यह कहा जा सकता है कि उदयपुर की इन कच्ची बस्तियों में अधिकाँश निम्न मध्यम व मध्यम आय वाले लोग निवास करते हैं कुछ अधिक आय वाले लोग भी हैं | अतः इससे यह स्पष्ट होता है की उदयपुर की कच्ची बस्तियों में असमान आय वितरण पाया जाता है |

4.2.2 उदयपुर की कच्ची बस्ती के निवासियों का रोजगार का विश्लेषण

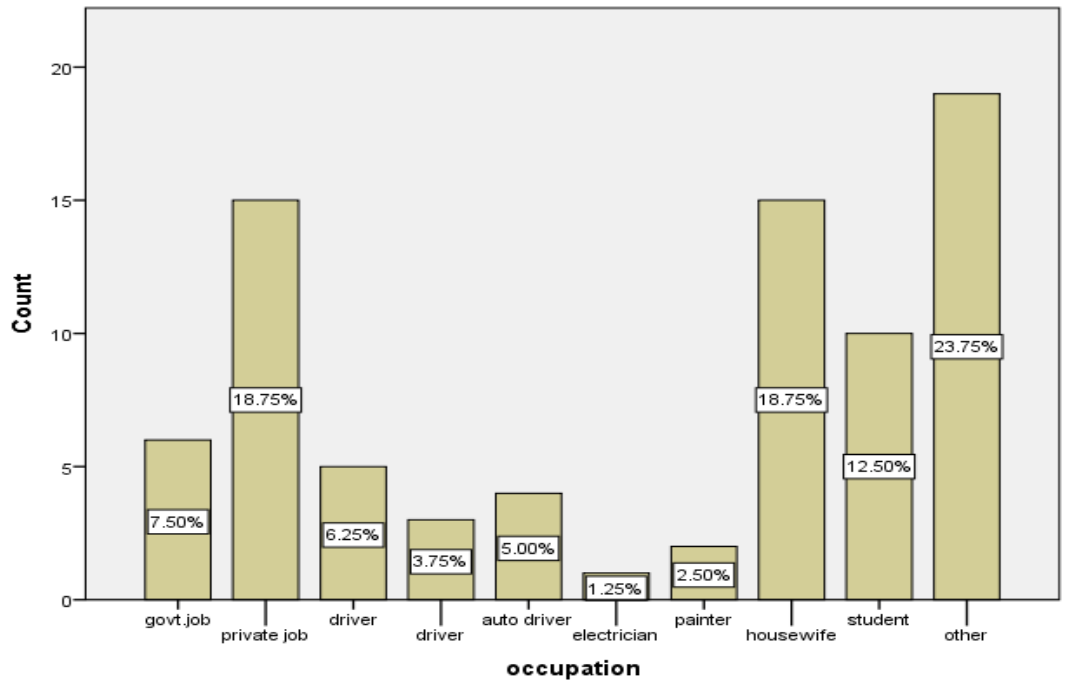
कच्ची बस्तियाँ हमारे समाज का का महत्वपूर्ण भाग हैं | देश का हिस्सा होने के कारण इनका भी आर्थिक विकास में योगदान होता है| यह माना जाता है कि कच्ची बस्तियों की आर्थिक स्थिति सही नहीं होती है| इसी बात का विश्लेषण करने के लिए प्रतिदर्श की रोजगार की स्थिति सम्बन्धित आंकड़ों का एकत्रीकरण किया गया है जिससे ये पता लगाया जा सके कि कच्ची बस्ती के निवासी किन-किन रोजगारों में लगे हुए हैं| तथा पुरुष व स्त्रीयां जिन कार्यों में लगे हुए हैं उनकी आर्थिक स्थिति कैसी है तथा कच्ची बस्ती में महिलाओं की आर्थिक स्थिति कैसी है? महिलाओं का परिवार की आर्थिक स्थिति में कितना योगदान है?

सारणी 4.13: उदयपुर की कच्ची बस्ती के निवासियों के रोजगार की प्रकृति (n=80)

रोजगार	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
सरकारी नौकरी	-	2	-	4	6
निजी कंपनी	5	4	4	2	15
मजदूर	-	-	4	1	5
ड्राईवर	1	1	-	1	3
ऑटो चालक	-	-	2	2	4
इलेक्ट्रीशियन	-	-	1	-	1
पेंटर	1	1	-	-	2
गृहिणी	5	1	5	4	15
विद्यार्थी	4	1	3	2	10
अन्य	4	10	1	4	19

स्त्रोत: प्राथमिक सर्वेक्षण

आरेख:4.6 उदयपुर की कच्ची बस्ती के सभी निवासियों के रोजगार की प्रकृति (n=80)



स्त्रोत- प्राथमिक सर्वेक्षण के आधार पर

किसी भी क्षेत्र के निवासी किन-किन रोजगारों में लिप्त हैं उससे उस क्षेत्र के आर्थिक विकास का भी पता लगाया जा सकता है| इस विश्लेषण के माध्यम से प्रतिदर्श के रोजगार की प्रकृति का पता लगाने का प्रयास किया गया है|

शोधकर्ता द्वारा चयनित कच्ची बस्तियों के आंकड़ों के विश्लेषण से पता चलता है कि 18.8 प्रतिशत जनसंख्या निजी कंपनी में कार्यरत हैं |कच्ची बस्ती के निवासी सरकारी क्षेत्र में भी कार्यरत हैं जिनकी संख्या 17.5 प्रतिशत है| उदयपुर की इन कच्ची बस्तियों में रहने वाले 23.8 प्रतिशत अन्य कार्यों यथा सब्जी विक्रेता, फल विक्रेता, हलवाई तथा कारखानों आदि में कार्यरत हैं |साथ ही इन बस्तियों में 18.8 प्रतिशत गृहिणियां हैं | 12.5 प्रतिशत विद्यार्थी भी यहाँ निवास करतें हैं |

4.2.3 उदयपुर की कच्ची बस्ती के पुरुषों के रोजगार की प्रकृति का विश्लेषण

सारणी 4.14: उदयपुर की कच्ची बस्तियों के पुरुषों के रोजगार की प्रकृति (n=80)

रोजगार की प्रकृति	कुल पुरुषों की संख्या	कुल प्रतिशत
सरकारी नौकरी	5	10.2
निजी कंपनी	9	18.4
मजदूर	4	8.2
ड्राईवर	3	6.1
ऑटो चालक	4	8.2
इलेक्ट्रीशियन	1	2
पेंटर	2	4.1
विद्यार्थी	4	8.2
अन्य	17	34.7
कुल	49	100

स्त्रोत- प्राथमिक सर्वेक्षण के आधार पर

शोधकर्ता द्वारा चयनित उदयपुर की कच्ची बस्तियों का अध्ययन करने पर ज्ञात होता है कि 18.4 प्रतिशत पुरुष निजी कंपनी में कार्यरत हैं तथा 10.2 प्रतिशत पुरुष सरकारी नौकरियों से अपना रोजगार प्राप्त कर रहे हैं| इन कच्ची बस्तियों में 8.2 प्रतिशत पुरुष मजदूरी करके, 8.2 प्रतिशत ऑटो चलाकर 6.1 प्रतिशत पुरुष गाड़ियाँ चलाकर अपना जीवन यापन कर रहे हैं| 2 प्रतिशत लोग इलेक्ट्रीशियन तथा 4.1 प्रतिशत पेंटर हैं|

यहाँ के 34.7 प्रतिशत पुरुष अन्य रोजगारों जैसे -सब्जी विक्रेता,फल विक्रेता, किराणा स्टोर, कारखानों, केबल ऑपरेटर आदि कार्यों में लिप्त हैं| इसी प्रतिदर्श में 8.2 प्रतिशत पुरुष ऐसे हैं जो विद्यार्थी हैं जो उच्च शिक्षा के लिए अध्ययनरत हैं|

अतः उदयपुर की कच्ची बस्तियों का अध्ययन करने पर प्राप्त होता है कि इन कच्ची बस्तियों में लगभग सभी प्रकार के रोजगार वाले लोग पाए जाते हैं|

4.2.4 उदयपुर की कच्ची बस्तियों में महिलाओं के रोजगार की प्रकृति

सारणी 4.15: उदयपुर की कच्ची बस्तियों के महिलाओं के रोजगार की प्रकृति (n=80)

रोजगार की प्रकृति	रोजगार में लगी महिलाओं की संख्या	कुल प्रतिशत
सरकारी नौकरी	1	3.2
निजी कंपनी	6	19.4
मजदूरी	1	3.2
गृहिणी	15	48.4
विद्यार्थी	2	6.5
अन्य	6	19.4

स्त्रोत: प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा चयनित कच्ची बस्तियों में यह पाया गया कि सामाजिक स्वतंत्रता के आधार पर आज भी यहाँ की महिलाओं की स्थिति इतनी अच्छी नहीं हैं| यहाँ लगभग आधी महिलाएं 48.4 प्रतिशत गृहिणी के रूप में जीवन यापन कर रही हैं|

वहीँ 3.2 प्रतिशत महिलाएं सरकारी नौकरी में अपना योगदान दे रहीं हैं | 19.4 प्रतिशत निजी कम्पनी, 6.5 प्रतिशत अन्य कार्यों जैसे - दूसरों के घरों में कार्य करना, झाड़ू लगाना, सब्जी बेचना आदि कार्यो में लगी हुई हैं |

वहीँ कुछ महिलाएं अर्थात् 3.2 प्रतिशत महिलाएं ऐसी भी हैं जो अपने परिवार की आर्थिक स्थिति कमजोर होने के कारण मजदूरी करतीं हैं | इन्हीं बस्तियों में 6.5 प्रतिशत महिलाएं ऐसी भी हैं जो अभी अध्ययन कर रही हैं|

अतः इससे यह स्पष्ट होता है कि कच्ची बस्तियों में आज भी सामाजिक स्वतंत्रता के आधार पर महिलाओं की स्थिति इतनी अच्छी नही है|

इस विश्लेषण के निष्कर्ष के आधार पर कहा जा सकता है कि प्रतिदर्श में रहने वाली महिलाओं को कार्य करने की स्वतंत्रता नहीं है| आज भी आधी महिलाएं केवल गृहिणी के रूप में अपना जीवनयापन कर रही है| आज भी महिलाओं में जागरूक होने की आवश्यकता है| उन्हें इस बात को जानने की ज़रूरत है कि वे भी पुरुषों की भांति आर्थिक विकास में अपना योगदान दे सकती है|

4.2.5 उदयपुर की कच्ची बस्ती के पुरुषों एवं महिलाओं के रोजगार की तुलना

सारणी 4.16: उदयपुर की कच्ची बस्ती के निवासियों पुरुषों एवं महिलाओं के रोजगार की तुलना (n=80)

रोजगार	लिंग		योग
	पुरुष	स्त्री	
सरकारी नौकरी	5	1	6
निजी कंपनी	9	6	15
मजदूर	4	1	5
ड्राईवर	3	0	3
ऑटो चालक	4	0	4
इलेक्ट्रीशियन	1	0	1
पेंटर	2	0	2
गृहिणी	0	15	15
विद्यार्थी	4	6	10
अन्य	17	2	19

स्त्रोत:प्राथमिक सर्वेक्षण के आधार पर

इस विश्लेषण को करने का तात्पर्य यह है कि प्रतिदर्श में यह ज्ञात किया जा सके कि कच्ची बस्तियों में महिलाओं की आर्थिक स्थिति पुरुषों के मुकाबले कैसी है? क्या महिलाएं भी पुरुषों के समान आर्थिक कार्यों में लिप्त है?

इस सारणी के माध्यम से प्रतिदर्श में यह देखा गया है कि महिलाओं की आर्थिक स्वतंत्रता पुरुषों के मुकाबले बहुत कम है| कच्ची बस्ती में निवास करने वाले निवासी सभी क्षेत्रों में अपना योगदान दे रहे हैं| इस सारणी के माध्यम से यह ज्ञात हो रहा है की सभी आर्थिक क्षेत्रों में महिलाओं के मुकाबले पुरुषों का योगदान अत्यधिक है|

सरकारी नौकरी में जहाँ 6.25 प्रतिशत पुरुषों का योगदान हैं वहीँ 1.25 प्रतिशत महिलाओं का योगदान है|

निजी नौकरी में जहाँ 11.25 प्रतिशत पुरुष कार्यरत हैं वहीँ महिलाएं केवल 6.25 प्रतिशत ही कार्यरत हैं|

18.75 प्रतिशत महिलाएं ऐसी हैं जो गृहिणी हैं तथा किसी भी आर्थिक कार्य में अपना योगदान नहीं दे रही है| 1.25 प्रतिशत महिलाएं ऐसी भी हैं जो आर्थिक रूप से कमज़ोर होने के कारण मजदूरी में योगदान दे रही है|

प्रतिदर्श में 5 प्रतिशत पुरुष तथा 7.5 प्रतिशत महिलाएं ऐसे हैं जो उच्च अध्ययन कर रहे हैं| इससे यह तो कहा जा सकता है कि कच्ची बस्तियों में शिक्षा का स्तर बढ़ा है|

प्रतिदर्श में 23.75 निवासी ऐसे हैं जो अन्य कार्यों यथा सब्जी विक्रेता, फल विक्रेता, ठेला चलाना, सफाई कर्मचारी आदि कार्यों में लगे हुए हैं|

इस विश्लेषण के निष्कर्ष के आधार पर यह कहा जा सकता है कि पुरुषों के मुकाबले आज भी कच्ची बस्ती की महिलाओं का आर्थिक कार्यों में योगदान कम है| कच्ची बस्ती की महिलाओं में शिक्षा के स्तर के साथ साथ आर्थिक कार्यों में योगदान देने के लिए जागरूकता लाने की आवश्यकता है|

4.3 निष्कर्ष

कच्ची बस्तियाँ हमारे देश की ही नहीं बल्कि सम्पूर्ण विश्व की मुख्य समस्याओं में से एक है| इस अध्याय के अंतर्गत उदयपुर की कच्ची बस्तियों के सामाजिक व आर्थिक स्तर का अध्ययन किया गया है|

प्रतिदर्श का विश्लेषण करने के पश्चात यह निष्कर्ष निकलता है कि कच्ची बस्ती में रहने वाले अधिकतर (92.5 प्रतिशत) निवासी हिन्दू धर्म के हैं तथा शेष निवासी मुस्लिम धर्म के पाए जाते हैं| अन्य धर्म के निवासी प्रतिदर्श में नहीं पाए गए|

लिंग के आधार पर पुरुषों की संख्या महिलाओं के मुकाबले बहुत अधिक है| रुढ़िवादिता आज भी विद्यमान है तथा प्रतिदर्श में आज भी पुरुष तथा स्त्री का भेद विद्यमान है|

कच्ची बस्तियों में जाति का विश्लेषण करने पर यह पाया गया कि यहाँ सबसे अधिक(41.3 प्रतिशत) अनुसूचित जाति के निवासी पाए जाते हैं| 22.5 प्रतिशत जनसंख्या अनुसूचित जनजाति की पाई जाती है| शेष निवासी सामान्य व पिछड़ा वर्ग के पाए जाते हैं|

वैवाहिक स्तर का विश्लेषण यह बताता है कि आधे से अधिक प्रतिदर्श के निवासी वैवाहिक हैं|

सामाजिक अध्ययन में शैक्षिक स्तर का विश्लेषण महत्वपूर्ण स्थान रखता है| इस अध्ययन में भी शिक्षा के स्तर का पता लगाया गया है| प्रतिदर्श में यह पाया गया कि कच्ची बस्तियों में शिक्षा का स्तर बढ़ा है| यहाँ 82.5 प्रतिशत लोग शिक्षित हैं| केवल 17.5 प्रतिशत लोग ही अशिक्षित हैं| प्रतिदर्श में शिक्षा का स्तर काफी उच्च है|

जातियों के आधार पर शिक्षा का स्तर पता करने पर यह ज्ञात हुआ कि सामान्य वर्ग के साथ-साथ सभी जाति वर्गों में शिक्षा का स्तर उच्च हुआ है तथा शिक्षा के प्रति जागरूकता बढ़ी है|

उम्र के आधार पर शिक्षा का स्तर देखने पर पता चला कि सभी आयु वर्गों में शिक्षा का स्तर बढ़ा है| पहले के मुकाबले सभी वर्गों में शिक्षित व्यक्तियों की संख्या बढ़ी है|

लिंग के आधार पर शिक्षा का स्तर विश्लेषित करने पर ज्ञात हुआ कि पुरुष महिलाओं के मुकाबले अधिक शिक्षित हैं| आज भी कच्ची बस्तियों में महिला शिक्षा को कम प्रोत्साहित किया जाता है| रूढ़िवादिता के कारण आज भी कच्ची बस्तियों में पुरुष-स्त्री का भेद विद्यमान है|

परिवारों का विश्लेषण करने पर यह ज्ञात हुआ कि यहाँ एकल तथा संयुक्त दोनों प्रकार के परिवार पाए जाते हैं| उन परिवारों की संख्या सबसे अधिक पाए जाते हैं जिनमे 5 सदस्य पाए जाते हैं|

बच्चों की संख्या के आधार पर यह ज्ञात हुआ कि प्रतिदर्श में 45 प्रतिशत घरों में बच्चे नहीं पाए जाते हैं| तथा एकल व संयुक्त दोनों प्रकार के परिवारों की उपस्थिति के कारण उन परिवारों की संख्या अधिक हैं जिनमें 3-4 बच्चे पाए जाते हैं|

प्रतिदर्श में रहने वाले लगभग सभी निवासी (96.3 प्रतिशत) 15 वर्षों से अधिक से यहाँ निवास कर रहे हैं| परन्तु यहाँ निवास करने वाले 63.8 प्रतिशत लोग अपने मकान की स्थिति से संतुष्ट नहीं हैं|

इस अध्याय में प्रतिदर्श की आर्थिक स्थिति का विश्लेषण करने का भी प्रयास किया गया है| मासिक आय का विश्लेषण करने पर ज्ञात हुआ कि प्रतिदर्श में निम्न मध्यम व मध्यम आय वर्ग वाले निवासी रहते हैं|

प्रतिदर्श में रोजगार की प्रकृति का अध्ययन करने पर यह निष्कर्ष पाए गए हैं कि यहाँ के निवासी सरकारी व निजी दोनों प्रकार के रोजगार में लिप्त हैं|सरकारी नौकरियों से ज्यादा कच्ची बस्ती के निवासी निजी नौकरियों में ज्यादा लगे हुए हैं| इसी के साथ यहाँ के निवासी अन्य कार्यों जैसे-सब्जी विक्रेता, फल विक्रेता, माली, ठेला चलने वाले, किराना स्टोर आदि कार्यों में लगे हुए हैं|

पुरुषों के मुकाबले महिलाओं की आर्थिक कार्यों में भागीदारी कम है| परन्तु पहले की अपेक्षा वर्त्तमान में थोडा सुधार हुआ है| महिलाएं सरकारी कार्यों, निजी नौकरी, तथा जिन महिलाओं की आर्थिक स्थितिओ कमजोर है वह महिलाएं मजदूरी करना व अन्य छोटे मोटे कार्यों में लगी हुई हैं| परन्तु फिर भी पुरुषों के मुकाबले महिलाएं आर्थिक कार्यों में लिप्त नहीं हैं| आज भी कच्ची बस्ती में महिलाओं को आर्थिक कार्यों की स्वतंत्रता नहीं है और आर्थिक कार्यों के लिए यहाँ जागरूकता का भी अभाव है|

आज भी यहाँ महिलाएं गृहिणी के रूप में अपना जीवन यापन कर रही है|

यह कहा जा सकता है कि कच्ची बस्तियों शिक्षा के प्रति जागरूकता तो बढ़ी है परन्तु आर्थिक कार्यों व महिलाओं की स्वतंत्रता के लिए जागरूकता की कमी पाई जाती है|

तथ्यों का अध्ययन एवं आंकड़ों का विश्लेषण यह दर्शाता है कि उदयपुर की कच्ची बस्तियों के निवासियों की निम्न सामजिक -आर्थिक स्थिति की हमारी परिकल्पना सत्य है |

अध्याय-5

उदयपुर की कच्ची बस्तियों के निवासियों के जीवन स्तर का मूल्यांकन

प्रायः ऐसा माना गया है कि कच्ची बस्ती में रहने वाले निवासियों का जीवन स्तर उच्च नहीं होता है| इसी तथ्य को विश्लेषित करने के लिए हमने अपने अध्ययन में इस उद्देश्य को शामिल किया है एवं उदयपुर की कच्ची बस्ती में रहने वाले लोगों के जीवन स्तर के बारे में पता लगाने का प्रयास किया है | जीवन स्तर के माध्यम से यह भी ज्ञात करने का प्रयास किया है कि प्रतिदर्श द्वारा चुनी हुई कच्ची बस्तियों के जीवन स्तर में समानता है या विभिन्नता पाई जाती है| इस अध्याय के अंतर्गत प्राथमिक सर्वेक्षण से प्राप्त आंकड़ों को कच्ची बस्ती के जीवन स्तर का पता लगाने के लिए विश्लेषित किया गया है|

5.1 उदयपुर की कच्ची बस्ती के निवासियों के जीवन स्तर सम्बन्धी तथ्यों का विश्लेषण

लोगों के जीवन स्तर का पता लगाने के लिए उनके रहन-सहन की स्थिति का विश्लेषण किया जाता है जैसे -उनके मकान की स्थिति, मकान में विभिन्न सुविधाओं की स्थिति, व्यक्ति के पास वाहन एवं अन्य घरेलू उपकरणों की उपलब्धता आदि| इसके साथ ही शिक्षा, स्वास्थ्य, स्वच्छता, बैंक एवं पोस्ट ओफिस आदि सुविधाएं भी जीवन स्तर को ऊँचा उठाती हैं | वर्तमान अध्ययन में भी कच्ची बस्ती के लोगों के जीवन स्तर का मूल्यांकन करने के लिए इन्हीं तथ्यों का विश्लेषण किया गया है जिसका वर्णन निम्नानुसार है|

5.1.1 उदयपुर की कच्ची बस्ती के निवासियों के मकान की स्थिति का विश्लेषण

सारणी 5.1: उदयपुर की कच्ची बस्ती के निवासियों के मकान का स्वामित्व (n=80)

स्वामित्व	उदयपुर की कच्ची बस्तियाँ				योग
	माछला मगर	विजय पथिक नगर	नीमच माता का खेड़ा	आवरी माता	
अपना	18	20	19	19	76
किराये का	2	-	1	1	4

स्त्रोत: प्राथमिक सर्वेक्षण

सारणी 5.1 में प्रतिदर्श के निवासियों का उनके मकान के स्वामित्व के आधार पर विश्लेषण किया गया है| इस विश्लेषण के द्वारा यह पाया गया है कि प्रतिदर्श में रहने वाले 95 प्रतिशत निवासियों के मकान स्वयं के है| इसके अतिरिक्त 5 प्रतिशत निवासी यहाँ किराये के मकान में रह रहे हैं|

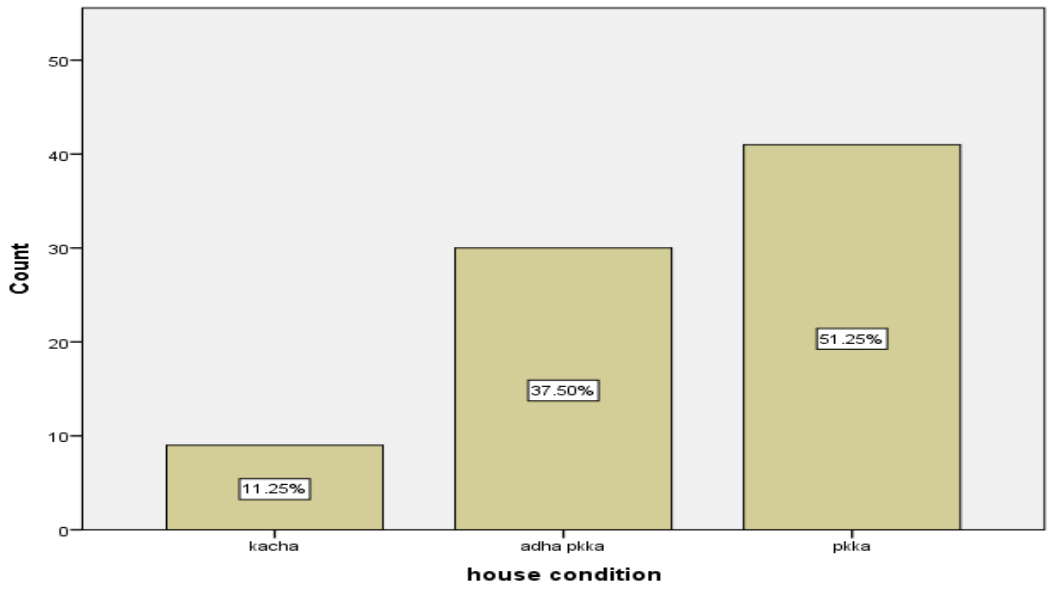
इस विश्लेषण के निष्कर्ष के आधार पर यह कहा जा सकता है कि यहाँ पर रहने वाले अधिकतर निवासियों के मकान स्वयं के हैं| इस प्रतिदर्श में निवासी 15 वर्षों से भी अधिक से यहाँ निवास कर रहे हैं| तथा यहाँ रहने वाले अधिकतर निवासियों के मकान स्वयं के हैं|

सारणी 5.2: उदयपुर की कच्ची बस्तियों के मकान की स्थिति (N=80)

मकान की स्थिति	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
कच्चा	5	1	2	1	9
अर्द्ध पक्का	10	10	8	2	30
पक्का	5	9	10	17	41

स्त्रोत: प्राथमिक सर्वेक्षण

आरेख 5.1 उदयपुर की कच्ची बस्ती के सभी निवासियों की मकान की स्थिति (n=80)



स्त्रोत: प्राथमिक सर्वेक्षण

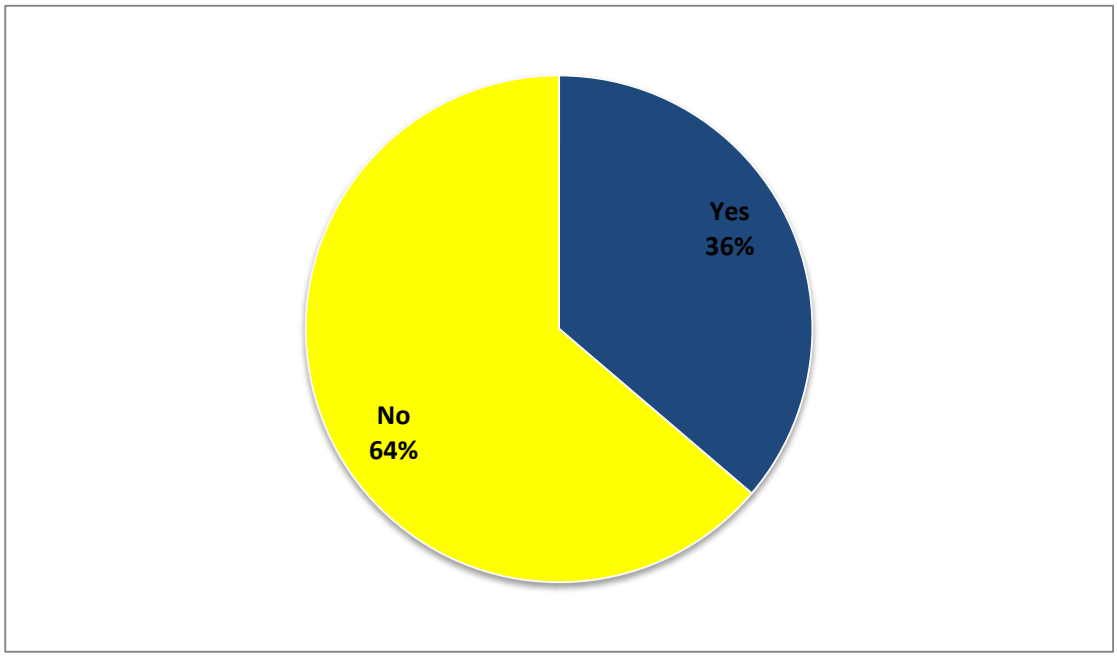
शोधकर्ता द्वारा चयनित कच्ची बस्तियों के सर्वेक्षण के आधार पर पता चलता है कि उदयपुर की कच्ची बस्तियों में 11.3 प्रतिशत परिवारों के पास कच्चे मकान हैं, 37.5 प्रतिशत निवासियों के अर्द्ध पक्के मकान तथा 51.3 प्रतिशत लोगों के पास पक्के मकान पाए गए हैं|

सारणी 5.3: उदयपुर की कच्ची बस्तियों के निवासियों की मकान से संतुष्टि की स्थिति (n=80)

मकान की स्थिति से संतुष्ट	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
हाँ	3	6	3	17	29
नहीं	17	14	17	3	51

स्त्रोत: प्राथमिक सर्वेक्षण

आरेख 5.2: उदयपुर की कच्ची बस्तियों के सभी निवासियों की मकान से संतुष्टि के स्थिति का वर्गीकरण (n=80)



स्त्रोत: प्राथमिक सर्वेक्षण

अध्ययन की गयी कच्ची बस्तियों के विश्लेषण से पता चलता है कि उदयपुर की कच्ची बस्तियों में 36.3 प्रतिशत परिवार ऐसे हैं जो अपने मकान की स्थिति से संतुष्ट हैं | वहीँ 63.8 प्रतिशत परिवार ऐसें हैं जो अपने मकान की स्थिति से संतुष्ट नहीं हैं |

5.1.2 उदयपुर की कच्ची बस्तियों के मकानों में विभिन्न सुविधाओं की स्थिति का विश्लेषण

5.1.2.1 मकानों में शौचालयों की उपलब्धता का विश्लेषण

सारणी 5.4: उदयपुर की कच्ची बस्तियों के मकानों में शौचालयों की उपलब्धता (n=80)

शौचालय	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
हाँ	20	20	20	20	80
नहीं	-	-	-	-	-

स्त्रोत: प्राथमिक सर्वेक्षण

चुने हुए प्रतिदर्श के आधार पर यह पाया गया कि उदयपुर की कच्ची बस्तियों में सभी परिवारों में शौचालय पाए जाते हैं| कहा जा सकता है कि इन कच्ची बस्तियों की जनता स्वच्छता को लेकर जागरूक है|

5.1.2.2 स्नानाघर की उपलब्धता का विश्लेषण

सारणी 5.5: उदयपुर की कच्ची बस्तियों में स्नानाघर की उपलब्धता (n=80)

शौचालय	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
हाँ	20	20	19	20	79
नहीं	-	-	1	-	1

स्त्रोत: प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा किये गए अध्ययन के अनुसार चयनित प्रतिदर्श में 98.8 प्रतिशत परिवारों में स्नानघर की सुविधा पाई जाती हैं |शेष 1.3 प्रतिशत परिवारों में स्नानघर नहीं पाए जातें हैं | इन कच्ची बस्तियों में कई कच्चे मकान भी पाए जाते हैं| तथा कुछ लोग ऐसे भी हैं जिनकी आर्थिक स्थिति अच्छी नहीं पाई गयी जिसके कारण कच्ची बस्तियों के कुछ घरों में स्नानाघर की सुविधा का अभाव पाया गया है|

5.1.2.3 रसोई घर की उपलब्धता का विश्लेषण

सारणी 5.6: उदयपुर की कच्ची बस्तियों में रसोई घर की उपलब्धता (n=80)

रसोईघर	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
हाँ	20	20	18	20	78
नहीं	-	-	2	-	2

स्त्रोत: प्राथमिक सर्वेक्षण

उपरोक्त सारणी द्वारा यह ज्ञात होता है कि उदयपुर की चुनी हुई कच्ची बस्तियों में 97.5 प्रतिशत परिवारों में रसोईघर पाए गए हैं | शेष 2.5 प्रतिशत परिवारों में रसोईघर नहीं पाए जाते हैं |

अतः स्पष्ट है कि आज भी इन कच्ची बस्तियों में खुले रसोईघर पाए जाते हैं | आज भी लोग इन बस्तियों में स्टोव, मिट्टी के चूल्हों पर भी खाना बनाते हैं | घरों का सामान्य से छोटा होने पर कच्ची बस्ती में खुले रसोईघर पाए जाते हैं |

5.1.2.4 खाना पकाने के मुख्य स्त्रोत का विश्लेषण

सारणी 5.7: उदयपुर की कच्ची बस्तियों में खाना पकाने के मुख्य स्त्रोत (n=80)

स्त्रोत	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
गैस स्टोव	20	20	17	18	75
मिट्टी का चूल्हा	-	-	3	2	5
केरोसीन स्टोव	-	-	-	-	-
इलेक्ट्रिक हीटर	-	-	-	-	-
अन्य	-	-	-	-	-

स्त्रोत: प्राथमिक सर्वेक्षण

उपरोक्त सारणी के आधार पर हमें ज्ञात होता है कि उदयपुर की कच्ची बस्तियों में आज भी मिट्टी के चूल्हे आदि का उपयोग खाना बनाने में किया जाता है|

कच्ची बस्तियों पाई जाने वाली 93.8 प्रतिशत जनसंख्या गैस स्टोव पर खाना बनती है | शेष 6.3 प्रतिशत जनसंख्या मिट्टी के चूल्हे पर अपना खाना बनाती है|

इससे यह कहा जा सकता है की यहाँ की कुछ निवासी आज भी निम्न स्तर पर अपना जीवन यापन कर रहे हैं| आर्थिक स्थिति कमजोर होने के कारण वे गैस स्टोव के खर्चे के भार को वहन नहीं कर पातें हैं तथा मिट्टी के चूल्हों पर अपना खाना बनातें हैं|

5.1.2.5 पानी के स्त्रोत के आधार पर विश्लेषण

सारणी 5.8: उदयपुर की कच्ची बस्तियों में पानी का स्त्रोत (n=80)

स्त्रोत	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
सार्वजनिक नल	19	19	19	20	77
ट्यूब वैल	1	1	-	-	2
हैण्ड पंप	-	-	1	-	1
निजी टैंकर	-	-	-	-	-
अन्य	-	-	-	-	-

स्त्रोत: प्राथमिक सर्वेक्षण

सर्वेक्षण के आधार पर यह पाया गया कि प्रतिदर्श में 95.1 प्रतिशत जनसंख्या सार्वजनिक नल पर निर्भर हैं| शेष 3.7 प्रतिशत जनसंख्या ट्यूब वैल व हैण्ड पंप को अपने पानी के स्त्रोत के रूप में उपयोग करती हैं|

5.1.2.6 बिजली कनेक्शन के आधार पर विश्लेषण

सारणी 5.9: उदयपुर की कच्ची बस्तियों में बिजली कनेक्शन (n=80)

बिजली कनेक्शन	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
हाँ	20	20	20	20	80
नहीं	-	-	-	-	-

स्त्रोत: प्राथमिक सर्वेक्षण

चुने हुए प्रतिदर्श के आधार पर यह पाया गया कि उदयपुर की कच्ची बस्तियों में सभी परिवारों में बिजली कनेक्शन पाए जाते हैं तथा सभी परिवार इस प्रतिदर्श में बिजली का उपयोग कर रहे हैं|

सारणी 5.10: उदयपुर की कच्ची बस्तियों में बिजली मीटर की उपलब्धता (n=80)

बिजली का मीटर	कच्ची बस्ती				योग
	माछला मगरा	**विजय पथिक नगर**	**नीमच खेड़ा**	**आवरी माता कच्ची बस्ती**	
हाँ	20	20	20	20	80
नहीं	-	-	-	-	-

स्त्रोत: प्राथमिक सर्वेक्षण

चुने हुए प्रतिदर्श के आधार पर यह पाया गया कि उदयपुर की कच्ची बस्तियों में सभी परिवारों में बिजली मीटर पाए जाते हैं तथा सभी परिवार इस प्रतिदर्श में बिजली का उपयोग कर रहे हैं| इस विश्लेषण से यह ज्ञात हुआ है कि इस प्रतिदर्श में सभी परिवारों के पास बिजली के वैध कनेक्शन हैं तथा किसी भी परिवार द्वारा अवैध बिजली कनेक्शन का उपयोग नहीं किया जा रहा है|

सारणी 5.11: उदयपुर की कच्ची बस्तियों में बिजली के भुगतान का स्त्रोत (n=80)

भुगतान	**कच्ची बस्ती**				**योग**
	माछला मगरा	**विजय पथिक नगर**	**नीमच खेड़ा**	**आवरी माता कच्ची बस्ती**	
बिजली विभाग में	7	10	10	10	37
ई-मित्र द्वारा	13	10	9	10	42
मकान मालिक को	-	-	-	-	-
कहीं नहीं	-	-	1	-	1

स्त्रोत: प्राथमिक सर्वेक्षण

प्रतिदर्श में बिजली के बिल के भुगतान के स्त्रोत का विश्लेषण किया गया है| इस विश्लेषण में यह पाया गया है कि प्रतिदर्श में 46.3 प्रतिशत निवासी ऐसे हैं जो बिजली विभाग में जाकर अपना बिल जमा करवाते हैं| कच्ची बस्ती में शिक्षा का स्तर भी बढ़ा है तथा प्रौद्योगिकी का भी विकास हुआ है| 52.5 प्रतिशत निवासी ऐसे भी हैं जो अपने बिजली के बिल का भुगतान ई-मित्र के द्वारा करवाते हैं| प्रतिदर्श में 1.3 प्रतिशत निवासी ऐसे भी पाए जाते हैं जो कहीं भी भुगतान नहीं कर रहे हैं|

5.1.3 स्वच्छता के स्थिति का विश्लेषण

सारणी 5.12: उदयपुर की कच्ची बस्तियों में स्वच्छता (n=80)

स्थिति	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
अच्छी	-	-	4	7	11
ख़राब	6	13	16	13	48
बहुत अच्छी	-	-	-	-	-
बहुत ख़राब	14	7	-	-	21

स्त्रोत: प्राथमिक सर्वेक्षण

जीवन स्तर के अंतर्गत प्रतिदर्श की स्वच्छता व्यवस्था के आधार पर विश्लेषण किया गया है| इस विश्लेषण के आधार पर यह पाया गया है कि सभी कच्ची बस्तियों में स्थान की भिन्नता के आधार पर सफाई व्यवस्था में भी भिन्नता पाई जाती है| यहाँ निवास करने वाले 13.8 प्रतिशत निवासी कहते हैं कि यहाँ कि सफाई व्यवस्था अच्छी है जबकि 60 प्रतिशत निवासी कहते हैं कि कच्ची बस्तियों की सफाई व्यवस्था सही नहीं है| वहीँ 26.3 प्रतिशत निवासी कहते हैं की कच्ची बस्तियों में सफाई व्यस्था बहुत ख़राब है| इस विश्लेषण के निष्कर्ष से ये प्राप्त होता है कि प्रतिदर्श में सफाई व्यवस्था ख़राब है| अतः यहाँ के निवासियों को सफाई व्यवस्था का उचित ध्यान रखना चाहिए|

5.1.4 परिवार के बच्चों के विद्यालय जाने का विश्लेषण

सारणी 5.13: उदयपुर की कच्ची बस्तियों के बच्चों के विद्यालय का प्रकार (n=80)

विद्यालय का प्रकार	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
सरकारी	3	4	5	4	16
निजी	9	2	2	2	15
कुछ सरकारी कुछ निजी	1	2	-	2	5
कहीं नहीं	7	12	13	12	44

स्त्रोत: प्राथमिक सर्वेक्षण

इस विश्लेषण के अंतर्गत यह ज्ञात करने की कोशिश की गयी है कि प्रतिदर्श में रहने वाले बच्चे किन विद्यालयों में शिक्षा ग्रहण करने जाते हैं| इस सारणी के विश्लेषण से यह ज्ञात होता है कि 20 प्रतिशत परिवारों के बच्चे सरकारी विद्यालयों में जाते हैं| 18.75 प्रतिशत परिवारों के बच्चे निजी विद्यालयों में जाते हैं| 6.25 प्रतिशत परिवार ऐसे हैं जिनके कुछ बच्चे सरकारी विद्यालय व कुछ निजी विद्यालय में जाते हैं| प्रतिदर्श में 55 प्रतिशत ऐसे परिवार भी पाए जाते हैं जिनके बच्चे विद्यालय नहीं जाते हैं|

इसके विश्लेषण से यह निष्कर्ष प्राप्त होता है कि केवल 20 प्रतिशत परिवारों के बच्चे ही सरकारी विद्यालय में जाते हैं| कच्ची बस्तियों में सरकारी विद्यालय न होने के कारण भी बच्चे सरकारी विद्यालयों में नहीं जा पाते हैं| तथा प्रतिदर्श में मध्यम आय वर्ग वाले भी पाए जाते हैं जो अपने बच्चों को निजी विद्यालय नहीं भेज पाते हैं जिसके कारण उनके बच्चे सरकारी विद्यालय जाते हैं|

18.75 प्रतिशत परिवारों के बच्चे निजी विद्यालयों से शिक्षा ग्रहण कर रहे हैं| सरकारी विद्यालयों की अनुपस्थिति तथा उचित शिक्षा व अंग्रेजी माध्यम के अभाव के कारण कच्ची बस्ती के परिवार अपने बच्चों को अच्छी शिक्षा देने के लिए निजी विद्यालयों में भेजते हैं| 6.25 प्रतिशत परिवारों के कुछ बच्चे सरकारी तथा कुछ बच्चे निजी में जाते हैं| परिवारों की आर्थिक स्थिति अच्छी न होने के कारण वे सभी बच्चों को निजी विद्यालय नहीं भेज पाते हैं| कुछ निवासियों का ऐसा भी मानना है कि सरकारी विद्यालयों में अनेक सुविधाओं के प्राप्त होने के कारण अनेक बच्चे सरकारी विद्यालय नहीं जाते हैं| 55 प्रतिशत परिवार ऐसे हैं जिनके बच्चे विद्यालय नहीं जाते हैं जिसका कारण ये पाया गया है कि अधिकतर परिवारों में विद्यालय जाने की उम्र वाले बच्चे नहीं हैं तथा कुछ घरों में बच्चों की संख्या शून्य है|

इस विश्लेषण से यह भी ज्ञात हुआ है कि कच्ची बस्तियों के सभी निवासी के घरों जिनमें बच्चे हैं वे सभी विद्यालय जाते हैं| अतः प्रतिदर्श में शिक्षा के प्रति जागरूकता बढ़ी है| व शिक्षा का स्तर भी उच्च हुआ हैं|

5.1.5 रोगों के उपचार की सुविधा का विश्लेषण

सारणी 5.14: उदयपुर की कच्ची बस्तियों के निवासियों के रोगों के उपचार का तरीका (n=80)

रोगों के उपचार का तरीका	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
सरकारी अस्पताल(डिस्पेंसरी)	17	19	19	18	73
निजी ओ.पी.डी	-	-	1	-	1
मेडिकल से दवाई	3	1	-	2	6
कहीं दवा नहीं	-	-	-	-	-

स्त्रोत: प्राथमिक सर्वेक्षण

प्रस्तावित प्रतिदर्श में रोगों का उपचार करने की सुविधा का विश्लेषण किया गया| इससे हमे हमें यह निष्कर्ष प्राप्त हुआ कि 91.25 प्रतिशत निवासी अपने छोटे-मोटे रोगों का उपचार करवाने के लिए सरकारी अस्पतालों/ डिस्पेंसरी में जाते हैं| रोगों का सही उपचार के साथ मुफ्त दवाइयों का लाभ भी सरकारी अस्पतालों द्वारा प्राप्त हो जाता है| 1.25 प्रतिशत निवासी भी ऐसे हैं जो प्राइवेट ओ.पी.डी का उपयोग अपना उपचार करवाने क लिए करवाते हैं| 7.5 प्रतिशत निवासी प्रतिदर्श में ऐसे भी हैं जो अपने उपचार के लिए केवल मेडिकल से दवाई ले लेते हैं| इससे यह निष्कर्ष प्राप्त हुए हैं कि प्रतिदर्श के निवासी अपने स्वास्थ्य को लेकर जागरूक हैं|

5.1.6 बैंक या पोस्ट ऑफिस में खाते का विश्लेषण

सारणी 5.15: उदयपुर की कच्ची बस्तियों के निवासियों का बैंक/पोस्ट ऑफिस में खाता (n=80)

बैंक/पोस्ट ऑफिस में खाता	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
हाँ	20	19	15	20	74
नहीं	-	1	5	-	6

स्त्रोत: प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा चयनित प्रतिदर्श के विश्लेषण के आधार पर यह कहा जा सकता है कि इन कच्ची बस्तियों के निवासियों में बचत की प्रवृति पाई जाती हैं| उदयपुर की इन कच्ची बस्तियों में 92.5 प्रतिशत लोगों के बैंक / पोस्ट ऑफिस में खाते पाए जातें हैं| शेष 7.5 प्रतिशत निवासी ऐसे भी हैं जिनके पोस्ट ऑफिस या बैंक में खाते नहीं हैं| निम्न स्तर पर जीवनयापन करने के कारण ये लोग बचत नहीं कर पातें हैं|

5.1.7 दस्तावेजों के आधार पर विश्लेषण

सारणी 5.16: उदयपुर की कच्ची बस्तियों के निवासियों के पास पाए जाने वाले दस्तावेजों की उपस्थिति (n=80)

स्त्रोत	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता कच्ची बस्ती	
वोटर आई.डी	17	20	18	20	75
आधार कार्ड	20	20	20	20	80
राशन कार्ड	19	20	18	20	77
बी.पी.एल कार्ड	7	13	9	9	20
पास बुक	20	20	15	20	75
ड्राइविंग लाइसेंस	13	12	6	11	42

स्त्रोत: प्राथमिक सर्वेक्षण

प्रतिदर्श में शोधकर्ता द्वारा यह विश्लेषित किया गया है कि प्रतिदर्श के निवासियों के पास कौन कौन से सरकारी दस्तावेज पाए जातें हैं? इस सारणी का विश्लेषण करने पर यह ज्ञात होता है कि 93.8 प्रतिशत लोगों के पास वोटर आई.डी पाया जाता है|

आधार कार्ड 100 प्रतिशत लोगों के पास ही पाया गया| 96.3 प्रतिशत निवासियों के पास राशन कार्ड पाया गया| केवल 25 प्रतिशत निवासियों के पास ही बी.पी.एल कार्ड पाया गया| प्रतिदर्श में मध्यम तथा निम्न मध्यम आय वाले परिवार पाए गए थे इसीलिए बी.पी.एल कार्ड दस्तावेज कच्ची बस्ती में कम पाया गया| 52.5 प्रतिशत लोगों के पास ड्राइविंग लाइसेंस पाया गया| प्रतिदर्श में पुरुषों की अपेक्षा महिलाओं को स्वतंत्रता कम है जिसके कारण महिलाएं दुपहिया व चौपहिया वाहन का उपयोग कम

करती हैं तथा इस दस्तावेज के महत्व को कम समझती हैं जिसके कारण आधे निवासियों के पास ही ये दस्तावेज पाया गया है|

कच्ची बस्ती के अधिकांश निवासी रोजगार के रूप में ऑटो ड्राइविंग,वैन ड्राइविंग, तथा कार चलाते हैं जिसके कारण ड्राइविंग लाइसेंस आवश्यक है|

93.8 प्रतिशत लोगों के पास बैंक/पोस्ट ऑफिस की पास बुक पाई जाती है| इससे यह पता लगता है कि प्रतिदर्श के निवासियों में बचत की प्रवृति पाई जाती है|

5.1.8 घरेलू उपकरणों व वाहनों के उपभोग का विश्लेषण

सारणी 5.17: उदयपुर की कच्ची बस्तियों के निवासियों द्वारा घरेलू उपकरणों व वाहनों का उपभोग (n=80)

उपभोग की जाने वाली वस्तुएं	उदयपुर की कच्ची बस्तियाँ				योग
	माछला मगरा	विजय पथिक नगर	नीमच माता का खेड़ा	आवरी माता	
एल.पी.जी गैस	20	20	18	18	76
लैंडलाइन	2	2	2	2	8
मोबाइल	19	19	16	19	73
पंखा	20	20	20	20	80
कूलर	14	15	12	15	56
ए.सी	1	1	-	-	2
फ्रीज	16	16	9	16	57
दुपहिया	19	18	11	18	66
चौपहिया	3	3	3	-	9
साइकिल	11	12	14	15	52

स्त्रोत: प्राथमिक सर्वेक्षण

इस अध्ययन के अंतर्गत शोधकर्ता द्वारा प्रतिदर्श के निवासियों के जीवन स्तर का पता लगाने के लिए उपभोग की जाने वाली वस्तुओं के आधार पर विश्लेषण किया गया है|

इस विश्लेषण तथा सारणी के द्वारा यह निष्कर्ष प्राप्त होते हैं कि प्रतिदर्श में 95.5 प्रतिशत निवासी एल.पी.जी की सुविधा का लाभ उठा रहें हैं|शेष 5 प्रतिशत निवासी आर्थिक कमजोरी के कारण एल.पी.जी का उपयोग नहीं कर पा रहें हैं|कच्ची बस्ती के सर्वाधिक निवासी एल.पी.जी का उपयोग कर रहे हैं| इससे यह ज्ञात होता है कि यहाँ के निवासियों की सामाजिक व आर्थिक स्थिति अच्छी है|

आज प्रौद्योगिकी तीव्र गति से बदल रहीं है| उसी बदलाव को उदयपुर की कच्ची बस्तियों(प्रतिदर्श) में भी देखा जा सकता है| उदयपुर की कच्ची बस्तियों में लैंडलाइन की सुविधा का उपयोग केवल 10 प्रतिशत लोग ही कर रहे हैं| इसी के साथ कच्ची बस्ती के 90 प्रतिशत निवासी इस सुविधा का उपयोग नहीं कर रहे हैं|

प्रतिदर्श में 91.8 प्रतिशत लोगों के पास मोबाइल फ़ोन की सुविधा पाई जाती है| शेष 7.3 प्रतिशत लोगों के पास मोबाइल नहीं पाए जाते हैं| यहाँ पर मिश्रित आय वर्ग वाले लोग पाए जाते हैं| जिस कारण से निम्न आय वाले लोग इस सुविधा का उपयोग करने से वंचित रह जातें हैं| आज के युग में मोबाइल फ़ोन सभी के जीवन का अभिन्न अंग बन गया है| इसलिए प्रतिदर्श के सर्वाधिक लोग इस सुविधा का उपयोग कर रहे हैं|

प्रतिदर्श के सभी निवासियों के मकान में पंखें की सुविधा पाई जाती हैं |

प्रतिदर्श में 70 प्रतिशत लोग कूलर का उपयोग करते हैं तथा 30 प्रतिशत लोगों के पास कूलर नहीं हैं| कच्ची बस्ती के लोगों की आर्थिक स्थिति निम्न मध्यम होती है| जिस कारण से यह सुविधाजनक यंत्रों का उपयोग नहीं कर पातें हैं|यहाँ पाए जाने वाले असमान आय वितरण के कारण यहाँ के कुछ निवासी इन सुविधाओं का उपयोग करतें हैं तथा कुछ इनसे वंचित रह जातें हैं|

प्रतिदर्श में 2.5 प्रतिशत लोग ऐसे हैं जो ए.सी की सुविधा का उपयोग का रहे हैं| अतः ये उच्च आय वाले लोग होते हैं| अतः यह कहा जा सकता है कि इन कच्ची बस्तियों में सभी आय वर्गों वाले लोग निवास करतें हैं|

प्रतिदर्श में 71.3 प्रतिशत निवासियों के पास फ्रिज की उपलब्धता हैं| शेष 28.8 प्रतिशत लोगों के पास फ्रिज का अभाव है|

65 प्रतिशत निवासी साइकिल का उपयोग करतें हैं| शेष 35 प्रतिशत लोगों के पास साइकिल नहीं है| आर्थिक स्थिति निम्न मध्यम होने के कारण अब इन कच्ची बस्तियों के निवासियों ने साइकिल का उपयोग कम कर दिया है| तथा जिनकी आर्थिक स्थिति अभी भी कमजोर है वे लोग आज भी साइकिल का उपयोग करतें हैं|

82.5 प्रतिशत निवासियों के दुपहिया वाहन हैं| शेष 17.5 परिवारों की आर्थिक स्थिति अच्छी नहीं होने के कारण इनमें दुपहिया वाहन भी नहीं पाए जाते हैं| असमान आय वितरण के कारण कुछ लोगों के पास तो गाड़ी की सुविधाएं उपलब्ध हैं तथा वहीं कुछ निवासियों के पास आवश्यक सुविधा भी नहीं हैं| यहाँ के निवासियों की आर्थिक स्थिति सही होने के कारण सर्वाधिक जनसंख्या के पास दुपहिया वाहन हैं |

चयनित कच्ची बस्तियों में देखा गया कि यहाँ की 11 प्रतिशत जनसंख्या के पास चौपहिया वाहन हैं | तथा सर्वाधिक 88.8 प्रतिशत जनसंख्या के पास यह वाहन नहीं हैं |

अतः इससे यह स्पष्ट होता है कि यहाँ की कच्ची बस्तियों में सभी प्रकार की आय वाले लोग निवास करतें हैं| कच्ची में निवास करने वाले उच्च आय वर्ग वालों के पास चौपहिया वाहन हैं| तथा कुछ निवासियों की रोजगार की प्रकृति ड्राइविंग की हैं जिसके कारण उनके पास भी चौपहिया वहां पाए जाते हैं|

इस विश्लेषण के निष्कर्ष से यह कहा जा सकता है कि प्रतिदर्श के कुछ निवासी तो सभी वस्तुओं का उपभोग करते हैं| तथा कुछ निवासी कुछ ही वस्तुओं का उपभोग करते हैं|

5.1.9 सुरक्षा के स्थिति का विश्लेषण

सारणी 5.18: उदयपुर की कच्ची बस्तियों में सुरक्षा की स्थिति (n=80)

स्थिति	कच्ची बस्ती				योग
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
सुरक्षित	-	1	7	6	14
थोडा सुरक्षित	6	1	2	2	11
असुरक्षित	14	18	11	12	55

स्त्रोत: प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा प्रतिदर्श का सुरक्षा व्यवस्था के आधार पर विश्लेषण किया गया है| इस सारणी व आंकड़ों के आधार पर यह निष्कर्ष सामने आया है कि 17.5 प्रतिशत निवासियों को प्रतिदर्श का वातावरण सुरक्षित लग रहा है|

13.8 प्रतिशत लोगों को यहाँ का वातावरण थोड़ा सुरक्षित लगता है तथा 68.8 प्रतिशत निवासी यहाँ के वातावरण को असुरक्षित मानते हैं|

5.1.10 बस्ती में उपलब्ध सुविधाओं का विश्लेषण

सारणी 5.19: उदयपुर की कच्ची बस्तियों में उपलब्ध सुविधाएँ

सुविधाएं	उदयपुर की कच्ची बस्तियाँ								आवृति	
	माछला मगर		विजय पथिक नगर		नीमच माता का खेड़ा		आवरी माता			
	हाँ	नहीं	हाँ	नहीं	हाँ	नहीं	हाँ	नहीं	हाँ	नहीं
सरकारी स्कूल	✓		✓		✓			✓	3	1
निजी स्कूल	✓			✓	✓		✓		3	1
डिस्पेंसरी	✓		✓		✓		✓		4	0
प्राइवेट ओ.पी.डी	✓		✓			✓	✓		3	1
प्राइवेट डॉ.	✓		✓			✓	✓		3	1
मेडिकल		✓	✓			✓	✓		2	2
बैंक	✓			✓		✓		✓	1	3
पोस्ट ऑफिस	✓			✓		✓		✓	1	3
राशन दुकान	✓			✓	✓		✓		3	1

स्त्रोत: प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा आंकड़ों का विश्लेषण प्रतिदर्श में उपस्थित सुविधाओं के आधार पर किया गया है| प्रतिदर्श में यह देखा गया कि सभी कच्ची बस्तियों में एक समान सुविधाएं उपलब्ध नहीं हैं| स्थान की विभिन्नता के आधार पर सुविधाओं में भी भिन्नता पाई जाती है|

उसी प्रकार इसके विश्लेषण के पश्चात् यह निष्कर्ष प्राप्त हुआ कि सभी कच्ची बस्तियों में सभी सुविधाएं उपलब्ध नहीं हैं|

सबसे अधिक जनसंख्या वाली माछला मगरा में सरकारी, निजी स्कूल, सरकारी अस्पताल,प्राइवेट ओ.पी.डी, प्राइवेट डॉक्टर, डिस्पेंसरी, बैंक, पोस्ट ऑफिस,राशन की दुकान आदि की सुविधा कच्ची बस्ती के आस-पास पाई जाती है|

विजय पथिक नगर में सरकारी स्कूल, प्राइवेट ओ.पी.डी, प्राइवेट डॉक्टर, मेडिकल आदि की सुविधा ही पाई जाती है|

नीमच माता का खेडा में सरकारी, निजी स्कूल, डिस्पेंसरी, राशन की दुकान पाई जाती है|

आवरी माता में निजी स्कूल, डिस्पेंसरी, प्राइवेट डॉक्टर,प्राइवेट ओ.पी.डी, मेडिकल व राशन की दुकान पाई जाती है|

अतः यह कहा जा सकता है कि सरकारी सुविधाएं यथा डिस्पेंसरी, सरकारी स्कूल, मेडिकल, राशन की दुकान लगभग हर कच्ची बस्ती में पाए ही जाते हैं|

प्राइवेट डॉक्टर, ओ.पी.डी, निजी स्कूल आदि की भी कच्ची बस्तियों में उपलब्धता पाई जाती है|

5.2 उदयपुर की कच्ची बस्ती के निवासियों के जीवन स्तर सूचकांक की गणना एवं मूल्यांकन

इस अध्ययन के अंतर्गत प्रतिदर्श के द्वारा कच्ची बस्तियों के जीवन स्तर सूचकांक की गणना द्वितीय अध्याय में वर्णित विधि द्वारा की गयी है| इस हेतु कच्ची बस्ती के निवासियों को उपलब्ध सुविधाओं जैसे एल.पी.जी गैस, पंखा, कूलर, ए.सी., साइकिल, दुपहिया, चौपहिया आदि तथा शौचालय, स्नानघर, रसोईघर, मकान की स्थिति से संतुष्टि, बैंक/पोस्ट ऑफिस में खाते की स्थिति आदि को शामिल किया गया है|

जीवन स्तर सूचकांक के मूल्य के आधार पर जीवन स्तर को तीन श्रणियों यथा निम्न जीवन स्तर (0-33), अच्छा जीवन स्तर (33-66), श्रेष्ठ जीवन स्तर (66-100)

में वर्गीकृत किया गया है| सर्वप्रथम प्रत्येक निवासी के जीवन स्तर सूचकांक की गणना की गयी तत्पश्चात चारों बस्तियों के माध्य जीवन स्तर सूचकांक की गणना की गई |इसके द्वारा यह ज्ञात करने का प्रयास किया गया है कि उदयपुर की कच्ची बस्ती के लोगों का औसत जीवन स्तर किस श्रेणी में आता है तथा चयनित चारों कच्ची बस्तियों के औसत जीवन स्तर समान है या इनमें भी विभिन्नता पाई जाती है|

सारणी 5.20: उदयपुर की कच्ची बस्तियों के निवासियों का जीवन स्तर सूचकांक के मूल्यानुसार वर्गीकरण (n=80)

जीवन स्तर सूचकांक का मूल्य	उदयपुर की कच्ची बस्तियाँ				बारंबारता
	माछला मगरा	विजय पथिक नगर	नीमच माता का खेड़ा	आवरी माता	
27	-	-	2	-	2
40	-	1	2	1	4
47	1	1	2	1	5
53	-	-	1	1	2
60	4	4	2	-	10
67	5	4	4	2	15
73	6	7	4	6	23
80	4	2	2	7	15
87	-	-	1	2	3
100	-	1	-	-	1

स्त्रोत: प्राथमिक सर्वेक्षण

संपूर्ण प्रतिदर्श में 63 निवासियों के जीवन स्तर सूचकांक का मूल्य 60 से 80 के मध्य है और उनमें से भी 53 लोंगों के लिए यह मूल्य 67 से 80 के मध्य है जो उदयपुर के कच्ची बस्ती के निवासियों के अच्छे जीवन स्तर की ओर संकेत करता है|

सभी कच्ची बस्तियों में निवासियों का जीवन स्तर सूचकांक विभिन्नता लिए हुए है| माछला मगरा में निवासियों का उच्च जीवन स्तर 80 है| वहीँ आवरी माता में इसी जीवन स्तर के सर्वाधिक निवासी 8.75 प्रतिशत निवासी पाए जाते हैं तथा यहाँ का उच्च जीवन स्तर 87 है| नीमच माता का खेड़ा का उच्च जीवन स्तर भी 87 है|

सबसे उच्च जीवन स्तर रखने वाली कच्ची बस्ती प्रतिदर्श में विजय पथिक नगर है| यहाँ के एक निवासी का जीवन स्तर सूचकांक 100 भी पाया गया है| यह निवासी जीवन स्तर ज्ञात करने में शामिल सभी सुविधाओं का उपभोग कर रहा है|

साथ ही इस विश्लेषण से यह भी निष्कर्ष प्राप्त होता है कि अलग-अलग कच्ची बस्तियों में जीवन स्तर सूचकांक भिन्न होने के साथ साथ प्रत्येक कच्ची बस्ती में भी भिन्न-भिन्न जीवन स्तर सूचकांक वाले निवासी निवास करते हैं| इस तथ्य को और अधिक स्पष्टता से अध्ययन करने हेतु जीवन स्तर सूचकांक के औसत मूल्य एवं प्रमाप विचलन की गणना की गई है (सारणी 5.20)|

सारणी 5.21: प्रतिदर्श द्वारा चयनित कच्ची बस्तियों की जीवन स्तर सूचकांक के आधार पर तुलना एवं औसत जीवन स्तर (n=80)

जीवन स्तर सूचकांक	**उदयपुर की कच्ची बस्ती**				**प्रतिदर्श कच्ची बस्तियों का औसत परिणाम**
	माछला मगर	**विजय पथिक नगर**	**नीमच खेड़ा**	**आवरी माता कच्ची बस्ती**	
माध्य	69	68.30	60.40	72.30	67.50
विचलन	8.608	12.503	17.416	12.486	13.608
विचरण गुणांक	12.48	18.31	28.83	17.27	20.16
निम्नतम	47	40	27	40	27
उच्चतम्	80	100	87	87	100

स्त्रोत: प्राथमिक सर्वेक्षण

शोधकर्ता द्वारा चयनित कच्ची बस्तियों में प्राप्त आंकड़ों के आधार पर यह पाया गया है कि चुनी हुई कच्ची बस्तियों के मध्य भी जीवन स्तर के अंतर्गत विभिन्नताएं पाई जाती हैं| जीवन स्तर का मूल्यांकन करने के लिए जीवन स्तर सूचकांक का प्रयोग किया गया है| इसके अंतर्गत जीवन स्तर का उच्चतम व निम्नतम मूल्य ज्ञात करके प्रतिदर्श की विभिन्न कच्ची बस्तियों के मध्य तुलनात्मक अध्ययन किया गया है|

इस विश्लेषण से यह ज्ञात हुआ कि कच्ची बस्तियों में अलग-अलग जीवन स्तर वाले लोग निवास करते हैं| इन कच्ची बस्तियों में निम्न तथा उच्च दोनों प्रकार के जीवन स्तर वाले साथ निवास करते हैं| जीवन स्तर सूचकांक के न्यूनतम मूल्य को देखने पर सबसे श्रेष्ठ जीवन स्तर माछला मगरा का पाया गया है| वहीँ उच्चतम मूल्य को देखने पर सभी कच्ची बस्तियों का जीवन स्तर श्रेष्ठ है परन्तु विजय पथिक नगर का जीवन स्तर अधिक उच्च है| यहाँ 100 जीवन स्तर सूचकांक प्राप्त करने वाले निवासी भी पाए गए हैं जो सभी प्रकार की सुविधाओं का उपभोग कर रहे हैं| सूचकांक का उच्चतम मूल्य सबसे कम माछला मगरा का है|

इस विश्लेषण के माध्यम से यह निष्कर्ष प्राप्त होता है कि कच्ची बस्तियों में वर्त्तमान में सभी प्रकार के जीवन स्तर वाले लोग विद्यमान हैं तथा कच्ची बस्तियों भीतर भी जीवन स्तर में भिन्नता पाई जाती है| प्रमाप विचलन तथा विचरण गुणांक के मान दर्शाते हैं कि सर्वाधिक भिन्नता नीमच खेड़ा में तथा न्यूनतम विषमता माछला मगरा में है| विवरणात्मक सांख्यिकी से ज्ञात होता है कि आवरी माता कच्ची बस्ती जीवन स्तर के आधार पर सबसे श्रेष्ठ है|

सारणी 5.22: उदयपुर की कच्ची बस्तियों के निवासियों का जीवन स्तर की विभिन्न श्रेणियों में वर्गीकरण(n=80)

जीवन स्तर श्रेणियाँ	उदयपुर की कच्ची बस्ती				बारंबारता
	माछला मगरा	विजय पथिक नगर	नीमच खेड़ा	आवरी माता	
0-33	-	-	2	-	2
33-66	3	7	5	6	21
66-100	15	14	11	17	57

स्त्रोत: प्राथमिक सर्वेक्षण

कच्ची बस्तियों के निवासियों का जीवन स्तर का तुलनात्मक अध्ययन करने के लिए जीवन स्तर सूचकांक को श्रेणियों में बाँटा गया है| प्रथम श्रेणी को निम्न, द्वितीय श्रेणी को अच्छी, तृतीय श्रेणी को श्रेष्ठ माना गया है|

निम्न श्रेणी में कुल प्रतिदर्श के केवल 2.5 प्रतिशत लोग पाए गए हैं जो नीमच माता का खेड़ा के निवासी हैं | अच्छी श्रेणी में 26.25 प्रतिशत निवासी पाए गए हैं| जिसमें सबसे आधिक निवासी विजय पथिक नगर के हैं|

श्रेष्ठ श्रेणी में प्रतिदर्श के 71.25 प्रतिशत निवासी जीवन यापन कर रहे हैं| इस श्रेणी में उन निवासियों को रखा गया है जिनका जीवन स्तर सूचकांक 66-100 के मध्य है| इस श्रेणी में निवासी सभी शामिल सुविधाओं का उपभोग कर रहे हैं| इस विश्लेषण से यह कहा जा सकता है कि प्रतिदर्श में सभी प्रकार के जीवन स्तर वाले लोग निवास कर रहे हैं|

तथा इससे यह भी निष्कर्ष प्राप्त होता है कि प्रतिदर्श में निम्न जीवन स्तर पर कम निवासी हैं जो वर्त्तमान में जीवन यापन कर रहे हैं|

5.2.1 प्रतिदर्शों में जीवन स्तर सूचकांक की समानता की जांच के लिए परीक्षण

सारणी 5.23: उदयपुर की कच्ची बस्तियों के औसत जीवन स्तर सूचकांकों की समानता की जाँच के लिए काई- वर्ग परीक्षण (n=80)

पियर्सन काई-वर्ग	मूल्य	स्वतन्त्रता कोटि	asymp.sig (द्वि-मार्गीय)
	8.982[a]	6	.175

स्त्रोत: प्राथमिक सर्वेक्षण के आधार पर

इस अध्ययन के अंतर्गत यह शून्य परिकल्पना रखी गयी कि प्रतिदर्श की कच्ची बस्तियों के जीवन स्तर सूचकांक में विभिन्नता नहीं पाई जाती है| इस परिकल्पना की जाँच करने के लिए काई-वर्ग परीक्षण का उपयोग किया गया| p value यदि .05 से कम है तो शून्य परिकल्पना अस्वीकार हो जाती है| इस परिकल्पना में p का मान .175>.05 पाई गयी है तो शून्य परिकल्पना स्वीकृत हुई तथा इस परीक्षण से यह निष्कर्ष प्राप्त हुआ है कि चयनित प्रतिदर्श की कच्ची बस्तियों के निवासियों के जीवन स्तर सूचकांक में असमानता नहीं पाई जाती है|

5.2.2 जीवन स्तर पर शिक्षा के प्रभाव का विश्लेषण

5.2.5 शिक्षा का जीवन स्तर पर प्रभाव

सारणी 5.24 शिक्षा का जीवन स्तर पर प्रभाव जानने के लिए विश्लेषण(n=80)

शिक्षा का स्तर	**जीवन स्तर की श्रेणियां**			**योग**
	0-33	**33-66**	**66-100**	
निरक्षर-प्राथमिक	2	3	10	15
माध्यमिक-उच्च माध्यमिक	0	8	13	21
स्नातक व उससे अधिक	0	10	33	43
योग	2	21	56	79

स्त्रोत: प्राथमिक सर्वेक्षण

सारणी 5.25 काई-वर्ग परीक्षण

कार्ल पियर्सन काई-वर्ग परिक्षण	मूल्य	स्वतंत्रता कोटि	asymp.sig(द्वि-मार्गीय)
	10.489[a]	4	.033

स्त्रोत: प्राथमिक सर्वेक्षण के आधार पर

इस अध्ययन में परिकल्पना दी गयी कि शिक्षा का जीवन स्तर पर कोई प्रभाव नहीं पड़ता है| इसी कल्पना की जांच करने के लिए काई-वर्ग परीक्षण का उपयोग किया गया है| इस परीक्षण के द्वारा यह परिकल्पना अस्वीकृत हो गयी| क्योंकि p का मान .033<.05 है| हमें इससे यह निष्कर्ष प्राप्त होते हैं कि शिक्षा का जीवन स्तर में सम्बन्ध पाया जाता है तथा शिक्षा का जीवन स्तर पर प्रभाव पाया जाता है|

निष्कर्ष : इस अध्याय के अंतर्गत कच्ची बस्ती के निवासियों का जीवन स्तर मूल्यांकन करने का प्रयास किया गया है| इस अध्याय में प्राप्त निष्कर्षों के आधार पर यह कहा जा सकता है कि प्रतिदर्श में लगभग 95 प्रतिशत निवासियों के मकान स्वयं के हैं तथा अधिकतर निवासी वहां 15 वर्षों से अधिक से वहां निवास कर रहे हैं|

प्रतिदर्श में लगभग आधे निवासियों के मकान पक्के हैं तथा 37.5 प्रतिशत निवासियों के मकान अर्द्ध पक्के व शेष के कच्चे मकान पाए गए हैं|

प्रतिदर्श में यह पाया गया कि सभी निवासियों के मकान में शौचालय की व्यवस्था पाई गयी|

प्रतिदर्श में 98.8 प्रतिशत निवासियों के यहाँ स्नानघर पाए जाते हैं| कच्ची बस्तियों में आज भी कई निवासियों के घर कच्चे हैं तथा आर्थिक स्थिति के कमजोर होने के कारण स्नानघर का अभाव पाया गया है|

रसोईघर की उपस्थिति प्रतिदर्श में 97.5 है आज भी कच्ची बस्तियों में सामान्य से छोटे घर पाए जाते हैं जिसके कारण कुछ घरों में आज भी रसोई नहीं पाई जाती है अर्थात घर में खुली रसोई का प्रयोग किया जाता है|

आज भी प्रतिदर्श में 6.3 प्रतिशत लोग ऐसे पाए गए जो मिट्टी के चूल्हे का उपयोग खाना बनाने में कर रहे हैं| आज भी कच्ची बस्तियों में आर्थिक स्थिति सही नहीं है| परन्तु जीवन स्तर ऊँचा उठा है जिसके कारण 93.8 प्रतिशत लोग एल.पी.जी गैस का उपयोग खाना बनाने में करते हैं|

कच्ची बस्तियों में 95 प्रतिशत जनसंख्या सार्वजनिक नल से पानी का उपभोग कर रही है|

बिजली व्यवस्था कच्ची बस्तियों में देखने पर पाया गया कि सभी के घर बिजली कनेक्शन हैं व सभी के घर मीटर भी लगे हुए हैं| कच्ची बस्तियों में आधुनिकता का विकास हुआ है कच्ची बस्ती के आधे से अधिक निवासी बिजली का बिल जमा करवाने में ई-मित्र की सुविधा का उपयोग करते हैं| तथा यहाँ कुछ निवासी ऐसे भी पाए गए जो बिजली का बिल कहीं जमा नहीं करवाते हैं|

सफाई व्यवस्था का पता लगाने पर यह पाया गया कि 60 प्रतिशत निवासियों का यह मानना है कि यहाँ सफाई व्यवस्था ख़राब है तथा 26.3 प्रतिशत लोग कहते हैं कि यहाँ की सफाई व्यवस्था बहुत ख़राब है|

छोटी-मोटी बिमारियों का उपचार करने के लिए कच्ची बस्ती के 91.25 प्रतिशत निवासी सरकारी अस्पताल/ डिस्पेंसरी का उपयोग कर रहे हैं|

7.5 प्रतिशत लोग ऐसे भी हैं जो मेडिकल से दवाई ले लेते हैं|

यहाँ के निवासियों में बचत की आदत को देखा गया| यहाँ के विश्लेषण से यह प्राप्त हुआ कि प्रतिदर्श में 92.5 प्रतिशत लोगों के बैंक/ पोस्ट ऑफिस में खाता है|

प्रतिदर्श में सभी निवासियों के पास आधार कार्ड है| 93.8 प्रतिशत निवासियों के नाम मतदान सूची में दर्ज हैं वहीँ 96.3 प्रतिशत निवासियों के पास राशन कार्ड है|

कच्ची बस्ती में 25 प्रतिशत निवासियों के पास बी.पी.एल कार्ड है कहा जा सकता है कि कच्ची बस्ती के कुछ निवासियों की आर्थिक स्थिति बहुत खराब है|

अधिकतर लोग यहाँ एल.पी.जी गैस का उपयोग कर रहे हैं| 10 प्रतिशत लोग आज भी लैंडलाइन का उपयोग करते हैं वहीँ आधुनिकता के साथ 91.8 प्रतिशत लोग

मोबाइल फ़ोन का उपयोग कर रहे हैं परन्तु कुछ निवासियों की आर्थिक स्थिति इतनी निम्न है कि यह इन सुविधाओं का उपयोग नहीं कर पा रहे हैं|

प्रतिदर्श में सभी निवासियों के पास पंखे की सुविधा है परन्तु 70 प्रतिशत लोग कूलर का उपभोग कर रहे हैं तथा कुछ निवासी ए.सी का भी उपभोग कर रहे हैं|

आर्थिक स्थिति इतनी उच्च न होने के कारण 65 प्रतिशत लोग साइकिल का उपयोग करते हैं वहीँ 11 प्रतिशत लोगों के पास चौपहिया वहां की भी सुविधा है|

आधे से अधिक जनसंख्या का मानना है की यहाँ का वातावरण असुरक्षित है|

जीवन स्तर सूचकांक के माध्यम से यह पाया गया कि कच्ची बस्तियों के जीवन स्तर में तो विभिन्नता पाई जाती है वहीँ वहाँ के निवासियों के जीवन स्तर में भी विभिन्नता पाई जाती है कुछ निवासियों का जीवन स्तर निम्न है तो कुछ का जीवन स्तर उच्च पाया जाता है|

काई वर्ग परीक्षण के द्वारा पाया गया कि चारों कच्ची बस्तियों के औसत जीवन स्तर सूचकांक के मूल्य में असमानता नहीं पाई जाती है| जीवन स्तर के आधार पर इन चारों कच्ची बस्तियों में समानता है |

काई वर्ग विश्लेषण के द्वारा शून्य परिकल्पना अस्वीकार होने से हमें यह भी ज्ञात होता है कि शिक्षा का जीवन स्तर पर प्रभाव पड़ता है अर्थात् शिक्षा व जीवन स्तर के मध्य सम्बन्ध पाया जाता है| शिक्षा का उच्च स्तर अच्छे जीवन स्तर की ओर ले जाता है |

अध्याय - 6
निष्कर्ष, समस्याएँ एवं सुझाव

6.1 शोध के निष्कर्ष

कच्ची बस्तियाँ किसी भी देश की मुख्य समस्या है| इन कच्ची बस्तियों में गरीबी, स्वच्छता की कमी, आर्थिक स्थिति की कमजोरी, सुरक्षित वातावरण की कमी आदि पाए जाते हैं|

कच्ची बस्तियों के निवासी आर्थिक रूप से मूल्यवान हैं, वे भी देश की अर्थव्यवस्था में योगदान करते हैं| अतः देश के सम्पूर्ण विकास के लिए इसका विकास भी आवश्यक है तथा इसके बारे में जानना भी जरुरी है|

"उदयपुर की कच्ची बस्तियों की सामाजिक व आर्थिक स्थिति का अध्ययन" इस अध्ययन के अंतर्गत कच्ची बस्ती के तुलनात्मक अध्ययन से विभिन्न प्रकार के निष्कर्ष प्राप्त हुए हैं|

प्रथम अध्याय में कच्ची बस्तियों के परिचय से यह ज्ञात होता है कि औद्योगीकरण तथा शहरीकरण के कारण कच्ची बस्तियों का संख्या दिनों दिन बढ़ती जा रही है तथा कच्ची बस्तियों की निरंतर वृद्धि से प्रदूषण, सामान्य स्वास्थ्य की कमी, शिक्षा व रोजगार की उपलब्धता के साथ कच्ची बस्तियों में निवासियों की दयनीय हालत भी दृष्टिगोचर हुई है| कच्ची बस्तियों का सामाजिक व आर्थिक स्तर पिछड़ा हुआ है| 2001 से वर्ष 2011 में कच्ची बस्ती के आंकड़ों में निरंतर वृद्धि हुई है|

द्वितीय अध्याय "साहित्य- पुनरवलोकन एवं शोध प्रविधि" के अंतर्गत विभिन्न प्रकार अंतर्राष्ट्रीय, राष्ट्रीय, राज्य, जिला स्तर के शोध कार्यों की समीक्षा की गयी है जिससे कच्ची बस्तियों की विभिन्न समस्याएं दृष्टिगोचर हुई है जैसे- कम शिक्षा, बेरोजगारी, अपराधिक गतिविधियाँ आदि तथा इससे इस अध्ययन को करने में सुविधा प्राप्त हुई है|

इस अध्याय में अध्ययन की शोध प्रविधि को भी समझाया गया है| अध्ययन में प्रतिदर्श का चुनाव उदयपुर की 4 सबसे बड़ी जनसंख्या वाली कच्ची बस्तियों को चुना गया है| ये कच्ची बस्तियाँ - माछला मगरा, विजय पथिक नगर, नीमच माता का खेड़ा, आवरी माता है| इन कच्ची बस्तियों से आंकड़ों का एकत्रीकरण करने के लिए प्रत्येक कच्ची बस्ती से 20 निवासियों को दैव निदर्शन द्वारा चुना गया है| इस प्रकार 80 निवासियों के आंकड़ों का एकत्रीकरण किया गया है|

सामाजिक व आर्थिक स्थिति, जीवन स्तर का अध्ययन करने के लिए आंकड़ों के एकत्रीकरण के लिए अनुसूची का प्रयोग किया गया है| इस अध्ययन के आंकड़ों का विश्लेषण करने के लिए जीवन स्तर सूचकांक, काई-वर्ग, विवरणात्मक सांख्यिकीय विधियाँ प्रयोग में ली गयी है|

तृतीय अध्याय "उदयपुर का सामान्य परिचय में" उदयपुर शहर का सामान्य परिचय दिया गया है| इसी अध्याय में में उदयपुर की कच्ची बस्तियों के बारे में जनसंख्या व वार्ड के अनुसार जानकारी प्रदान की गयी है|

इस अध्याय से हमें यह निष्कर्ष प्राप्त हुआ है कि उदयपुर शहर के अंतर्गत 39 कच्ची बस्तियाँ हैं। इन कच्ची बस्तियों में 9529 मकान तथा 47363 जनसंख्या निवास करती हैं जो कुल जनसंख्या का 11 प्रतिशत है। गरीबी रेखा से नीचे जीवनयापन करने वाले लोग कुल जनसंख्या के 14 प्रतिशत हैं। उदयपुर की कुछ कच्ची बस्तियाँ ऐसी भी हैं जो दो वार्ड के मध्य विभाजित है। इन कच्ची बस्तियों में की विशेषता बताई गई है कि यहाँ औसतन 5 व्यक्ति एक घर में पाए जाते हैं|

चतुर्थ अध्याय "उदयपुर की कच्ची बस्तियों का आर्थिक व सामाजिक विश्लेषण" में सामाजिक व आर्थिक स्तर का विश्लेषण किया गया है| अध्याय के अंतर्गत रोजगार की प्रकृति सम्बन्धी विश्लेषण भी किया गया है|अध्ययन के इस विश्लेषण में विभिन्न सामाजिक व आर्थिक स्तर के निष्कर्ष प्राप्त हुए हैं|

इस अध्ययन में सामाजिक स्तर का विश्लेषण करने पर यह ज्ञात हुआ कि प्रतिदर्श में हिन्दू धर्म के 92.5 प्रतिशत निवासी हैं तथा शेष मुस्लिम हैं| प्रतिदर्श में 61.3

प्रतिशत पुरुष पाए गए हैं तथा महिलाओं की जनसंख्या काफी कम है तथा यहाँ 73.8 प्रतिशत लोग वैवाहिक हैं|

प्रतिदर्श में सबसे अधिक 41.3 प्रतिशत निवासी अनुसूचित जाति के पाए गए हैं| 22.5 प्रतिशत जनसंख्या अनुसूचित जनजाति की शेष सामान्य व पिछड़ा वर्ग के पाए गए हैं|

साक्षरता स्तर देखने पर यह पता चला है कि प्रतिदर्श में वर्तमान में शिक्षा का स्तर काफी बढ़ा है| यहाँ पर 82.5 प्रतिशत निवासी साक्षर हैं| 17.5 प्रतिशत लोग अशिक्षित पाए गए हैं| जातियों के आधार पर शिक्षा का स्तर देखने पर ज्ञात होता है कि सामान्य वर्ग के साथ-साथ सभी जातियों में शिक्षा का स्तर प्रतिदर्श में बढ़ा हुआ पाया गया है|

वर्त्तमान में सभी आयु वर्गों में शिक्षित निवासियों की संख्या बढ़ी है| शैक्षिक स्थिति के आधार पर यह कहा जा सकता है कि कच्ची बस्तियों में शिक्षा के प्रति जागरूकता बढ़ी है|

लिंग के आधार पर शिक्षा का विश्लेषण करने पर यह ज्ञात होता है कि पुरुषों के मुकाबले महिलाएं काफी कम शिक्षित हैं| कच्ची बस्ती में आज भी महिला शिक्षा को कम प्रोत्साहित किया जाता है| कच्ची बस्ती में आज भी पुरुष-स्त्री की समानता को स्वीकार नहीं किया जाता है|

निवासियों के परिवारों का विश्लेषण करने पर यह निष्कर्ष प्राप्त हुए हैं कि प्रतिदर्श में संयुक्त तथा एकल दोनों प्रकार के परिवार पाए जाते हैं| प्रतिदर्श में उन परिवारों की संख्या सबसे अधिक पाई जाती है जिनमें 5 सदस्य पाए गए हैं| बच्चों की संख्या का विश्लेषण करने पर निष्कर्ष प्राप्त हुए हैं कि यहाँ 45 प्रतिशत घरों में बच्चे नहीं पाए गए| शेष परिवारों में वे परिवार अधिक पाए गए हैं जिनमें 3-4 बच्चे पाए जाते हैं|

आर्थिक स्तर का विश्लेषण करने पर यह ज्ञात हुआ है कि यहाँ के लोगों की आर्थिक स्थिति पिछड़ी हुई है| यहाँ के लोग निम्न प्रकार के रोजगारों में लगे हुए हैं जिसके

कारण प्रतिदर्श में अधिकतर निम्न मध्यम व मध्यम आय वाले निवासी पाए गए हैं| यहाँ कुछ निवासियों की आर्थिक स्थिति निम्न पाई गयी है|

इस अध्याय में आर्थिक स्थिति में रोजगार की प्रकृति का विश्लेषण करने का प्रयास किया गया है| इस विश्लेषण से हमे यह निष्कर्ष प्राप्त हुए है कि यहाँ के निवासी सरकारी व गैर सरकारी दोनों प्रकार के रोजगारों में लगे हुए हैं| सरकारी नौकरी की अपेक्षा यहाँ के निवासी निजी नौकरियों में अधिक लगे हुए हैं| प्रतिदर्श के 23.8 प्रतिशत निवासी अन्य कार्यों जैसे- सब्जी विक्रेता, फल विक्रेता, बागवान, ठेला चलाने आदि कार्यों में लगे हुए हैं|

महिलाओं की पुरुषों के मुकाबले आर्थिक कार्यों में भागीदारी में कमी पाई गयी है| परन्तु फिर भी वर्तमान में पहले की अपेक्षा सुधार हुआ है| महिलाएं सरकारी कार्यों, निजी नौकरियों तथा जिन महिलाओं की आर्थिक स्थिति सही नहीं है वह महिलाएं मजदूरी करना, दूसरों के घर झाड़ू- पोछा करना, खाना बनाना आदि कार्यों में लगी हुई हैं| प्रतिदर्श में 48.3 प्रतिशत, 48.3 प्रतिशत महिलाएं ऐसी हैं जो गृहिणी के रूप में जीवन यापन कर रही हैं तथा किसी भी प्रकार से आर्थिक कार्यों में अपना योगदान नहीं दे रहीं हैं| आर्थिक स्तर का विश्लेषण करने पर यह ज्ञात हुआ कि यहाँ के निवासी निम्न प्रकार के रोजगारों में लगे हुए है जिसके कारन इनकी आय भी निम्न व निम्न माध्यम है| शिक्षा के स्तर में कमी के कारन इन्हें रोजगारों का उचित ज्ञान नहीं मिल पाता है| जिसके कारन ये निम्न रोजगारों में लग जाते हैं|

महिलाओं में आर्थिक कार्यों को करने की स्वतंत्रता नहीं पाई गयी है तथा इन महिलाओं में आर्थिक कार्यों को करने के लिए जागरूकता का भी अभाव पाया गया है| इस विश्लेषण में यह पाया गया है कि उदयपुर की कच्ची बस्तियों की सामाजिक आर्थिक स्थिति पिछड़ी हुई है| शैक्षिक तथा रोजगार की स्थिति निम्न होने के कारण यहाँ की स्थिति भी निम्न पाई गयी है| महिलाओं की स्थिति पुरुषों की अपेक्षा और अधिक पिछड़ी हुई पाई गयी है| सामाजिक स्तर पर भी ये निवासी पिछड़े हुए पाए गए है| परन्तु सामाजिक तथा आर्थिक स्थिति में धीरे-धीरे सुधार हो रहा है|

पंचम अध्याय “उदयपुर की कच्ची बस्ती के निवासियों के जीवन स्तर का मूल्यांकन” में प्रतिदर्श के निवासियों के जीवन स्तर का अध्ययन किया गया है| उदयपुर के कच्ची बस्तियों के निवासियों के जीवन स्तर सूचकांक की गणना करके प्रतिदर्श की चारों कच्ची बस्तियों के औसत जीवन स्तर का तुलनात्मक अध्ययन भी किया गया है| निवासियों के जीवन स्तर का विश्लेषण करने के लिए कच्ची बस्तियों में मकानों की स्थिति, उनमें सुविधाओं, घरेलू उपकरणों एवं वाहनों के उपभोग, व कच्ची बस्तियों में उपलब्ध शिक्षा, स्वास्थय, पानी, स्वछता आदि का विश्लेषण किया है| प्रतिदर्श में 95 प्रतिशत निवासियों के मकान स्वयं के हैं| 96.3 प्रतिशत निवासी ऐसे हैं जो यहाँ 15 वर्षों से अधिक से यहाँ निवास कर रहे हैं| परन्तु यहाँ रहने वाले 63.8 प्रतिशत निवासी ऐसे हैं जो अपने मकान के स्थिति से संतुष्ट नहीं हैं| प्रतिदर्श में लगभग आधे निवासियों के मकान पक्के हैं, 37.5 प्रतिशत के अर्द्ध पक्के हैं तथा शेष निवासियों के मकान कच्चे हैं|

परिवार में उपलब्ध सुविधाओं के आधार पर यह पाया गया कि प्रतिदर्श के सभी मकानों में शौचालय की सुविधा पाई जाती है| 98.8 प्रतिशत निवासियों के घरों में स्नानघर पाए गए हैं तथा 97.5 प्रतिशत निवासियों के घरों रसोई घर पाए गए हैं| घरों का आकार माध्यम से भी छोटा होने पर शेष घरों में खुले रसोई घर पाए जाते हैं| कच्ची बस्तियों में जीवन स्तर ऊँचा उठने के कारण 93.8 प्रतिशत घरों में एल.पी.जी गैस के द्वारा खाना बनाया जाता है तथा शेष घरों में आर्थिक स्थिति अधिक न्यून होने के कारण आज भी मिट्टी के चूल्हे के द्वारा खाना बनाया जाता है|

प्रतिदर्श के 95 प्रतिशत निवासी सार्वजनिक नलों का उपयोग पानी के लिए करते हैं| परन्तु यहाँ पानी की समस्या पाई गयी है यहाँ पानी रोज नहीं आता तथा केवल 1-2 घंटों के लिए ही पानी आता है जिससे यहाँ पानी को लेकर काफी समस्याएं आती हैं| वहीँ शेष लोग पानी के लिए ट्यूबवेल व हैंडपंप का उपयोग करते हैं|

प्रतिदर्श के सभी निवासियों के घर में बिजली का कनेक्शन है तथा सभी घरों में बिजली के मीटर भी लगे हुए हैं| कच्ची बस्तियों में शिक्षा स्तर के साथ-साथ आधुनिकता का भी विकास हुआ है जिसके कारण आज 52.5 प्रतिशत निवासी ई-मित्र

के द्वारा अपने बिलों का भुगतान करते हैं तथा इनमें 1.3 प्रतिशत निवासी ऐसे हैं जो कहीं भी अपने बिलों का भुगतान नहीं करते हैं व शेष निवासी बिजली विभाग में जाकर बिल जमा करवाते हैं|

60 प्रतिशत निवासियों का यह कहना है कि यहाँ की सफाई व्यवस्था ख़राब है तथा 26.3 प्रतिशत निवासियों का कहना है कि यहाँ की सफाई व्यवस्था अत्यधिक ख़राब है|

यहाँ के निवासियों के 20 प्रतिशत परिवारों के बच्चे सरकारी स्कूल, 18.75 प्रतिशत परिवारों के बच्चे प्राइवेट स्कूल जाते हैं तथा 55 प्रतिशत बच्चों की उम्र इतनी न होने के कारन किसी स्कूल नहीं जाते हैं| तथा शेष परिवारों के बच्चे कुछ सरकारी व कुछ निजी विद्यालयों में जाते हैं| सरकारी स्कूल में अध्यापकों की अनुपस्थिति व अंग्रेजी माध्यम ने होने के कारण अपने बच्चों को सरकारी स्कूल में नहीं भेजते हैं|

91.25 निवासी अपनी छोटी-मोटी बीमारी के इलाज के लिए सरकारी अस्पताल/ डिस्पेंसरी का उपयोग करते हैं तथा 7.5 प्रतिशत निवासी मेडिकल से दवाई ले लेते हैं| वहीँ कुछ निवासी प्राइवेट डॉक्टर से भी परामर्श प्राप्त करते हैं|

प्रतिदर्श के निवासियों में बचत करने की आदत पाई गयी है यहाँ के 92.5 प्रतिशत निवासियों के बैंक/ पोस्ट ऑफिस में खाते पाए गए हैं| वहीँ कुछ लोगों की आर्थिक स्थिति इतनी कमजोर है कि वे केवल अपना भरण-पोषण जितना ही कमा पाते हैं|

यहाँ के सभी निवासियों के पास आधार कार्ड पाए गए हैं| 93.8 प्रतिशत निवासी मतदान सूची में दर्ज हैं, 96.3 प्रतिशत निवासियों के पास राशन कार्ड हैं, 25 प्रतिशत निवासियों के पास आर्थिक स्थिति कमजोर होने के कारण बी.पी.एल कार्ड भी पाए गए हैं| 52.5 प्रतिशत निवासियों के पास लाइसेंस पाया गया है|

95 प्रतिशत निवासी एल.पी.जी गैस का उपयोग कर रहे हैं| 10 प्रतिशत लोगों के पास लैंडलाइन की सुविधा है वहीं आधुनिकता के विकास के साथ 91.8 प्रतिशत निवासी मोबाइल सुविधा का उपभोग कर रहे हैं| आर्थिक स्थिति अधिक कमजोर होने के

कारण 7.3 प्रतिशत लोग ऐसे हैं जो मोबाइल सुविधा का उपयोग भी नहीं कर पा रहे हैं|

प्रतिदर्श के सभी निवासियों के यहाँ पंखे की सुविधा का लाभ उठा रहेओं हैं, वहीँ 70 प्रतिशत निवासी कूलर का उपयोग करते हैं|

इस प्रतिदर्श में कुछ निवासी ऐसे भी पाए गए है जिनकी आय उच्च होने के कारण 2.5 प्रतिशत लोग ए.सी. का भी उपयोग कर रहे हैं|

कच्ची बस्तियों में निम्न, निम्न माध्यम आय वाले निवासी पाए गए हैं जिसके कारण 65 प्रतिशत निवासी आज भी साइकिल का उपयोग कर रहे हैं, 82.5 प्रतिशत निवासी दुपहिया वाहन तथा वहीँ यहाँ ऐसे भी 11 प्रतिशत निवासी पाए जाते हैं जो चौपहिया वाहनों का उपयोग करते हैं| यहाँ के 68.8 प्रतिशत निवासी यहाँ के वातावरण को असुरक्षित मानते हैं|

कच्ची बस्तियों के निवासियों का जीवन स्तर का तुलनात्मक अध्ययन करने के लिए जीवन स्तर सूचकांक के मूल्य के आधार पर जीवन स्तर को तीन श्रणियों यथा निम्न जीवन स्तर (0-33), अच्छा जीवन स्तर (33-66), श्रेष्ठ जीवन स्तर (66-100) में वर्गीकृत किया गया है| सर्वप्रथम प्रत्येक निवासी के जीवन स्तर सूचकांक की गणना की गयी तत्पश्चात चारों बस्तियों के माध्य जीवन स्तर सूचकांक की गणना की गई |

संपूर्ण प्रतिदर्श में 63 निवासियों के जीवन स्तर सूचकांक का मूल्य 60 से 80 के मध्य है और उनमें से भी 53 लोंगों के लिए यह मूल्य 67 से 80 के मध्य है जो उदयपुर के कच्ची बस्ती के निवासियों के अच्छे जीवन स्तर की ओर संकेत करता है| निम्न श्रेणी में कुल प्रतिदर्श के केवल 2.5 प्रतिशत लोग पाए गए हैं जो नीमच माता का खेड़ा के निवासी हैं | अच्छी श्रेणी में 26.25 प्रतिशत निवासी पाए गए हैं| जिसमें सबसे आधिक निवासी विजय पथिक नगर के हैं|

श्रेष्ठ श्रेणी में प्रतिदर्श के 71.25 प्रतिशत निवासी जीवन यापन कर रहे हैं| इस श्रेणी में उन निवासियों को रखा गया है जिनका जीवन स्तर सूचकांक 66-100 के मध्य है|

इस श्रेणी में निवासी सभी शामिल सुविधाओं का उपभोग कर रहे हैं| इस विश्लेषण से यह कहा जा सकता है कि प्रतिदर्श में सभी प्रकार के जीवन स्तर वाले लोग निवास कर रहे हैं| तथा इससे यह भी निष्कर्ष प्राप्त होता है कि प्रतिदर्श में निम्न जीवन स्तर पर कम निवासी हैं जो वर्त्तमान में जीवन यापन कर रहे हैं|

जीवन स्तर सूचकांक का तुलनात्मक अध्ययन करने पर यह पाया गया कि कच्ची बस्तियों के अन्दर भी निवासियों के जीवन स्तर में भिन्नता है तथा विभिन्न कच्ची बस्तीयों के औसत जीवन स्तर में भी भिन्नता पाई गई है|

इन कच्ची बस्तियों में निम्न तथा उच्च दोनों प्रकार के जीवन स्तर वाले साथ निवास करते हैं| जीवन स्तर सूचकांक के न्यूनतम मूल्य को देखने पर सबसे श्रेष्ठ जीवन स्तर माछला मगरा का पाया गया है| वहीं उच्चतम मूल्य को देखने पर सभी कच्ची बस्तियों का जीवन स्तर श्रेष्ठ है परन्तु विजय पथिक नगर का जीवन स्तर अधिक उच्च है| यहाँ 100 जीवन स्तर सूचकांक प्राप्त करने वाला निवासी भी पाया गया है जो सभी प्रकार की सुविधाओं का उपभोग कर रहा है| सूचकांक का उच्चतम मूल्य सबसे कम माछला मगरा का है|

इस विश्लेषण के माध्यम से यह निष्कर्ष प्राप्त होता है कच्ची बस्तियों के भीतर भी जीवन स्तर में विषमता पाई जाती है| प्रमाप विचलन तथा विचरण गुणांक के मान दर्शाते हैं कि सर्वाधिक भिन्नता नीमच खेड़ा में तथा न्यूनतम विषमता माछला मगरा में है| विवरणात्मक सांख्यिकी से ज्ञात होता है कि आवरी माता कच्ची बस्ती जीवन स्तर के आधार पर सबसे श्रेष्ठ है|

अंततः परिकल्पनाओं के विषय में निम्न निष्कर्ष प्राप्त होते हैं:

परिकल्पना 1: उदयपुर की कच्ची बस्ती के निवासियों का सामाजिक व आर्थिक स्तर निम्न नहीं है|

निष्कर्ष: इस अध्ययन के निष्कर्ष के आधार पर यह कहा जा सकता है कि यह परिकल्पना अस्वीकार होती है| उदयपुर की कच्ची बस्ती के निवासियों का सामाजिक व आर्थिक स्तर निम्न है| इन कच्ची बस्तियों में आज भी पुरुष प्रधान समाज पाया

गया है| यहाँ पुरुषों की संख्या महिलाओं से अधिक है| पुरुषों का शैक्षिक स्तर भी महिलाओं से अधिक है| आर्थिक कार्यों में भी पुरुषों की भागीदारी महिलाओं से अधिक है| महिलाओं में आज भी जागरूकता का अभाव पाया गया है| आज भी यहाँ लगभग आधी महिलाएं गृहिणी के रूप में जीवन यापन कर रही हैं| कुछ निवासियों के मकान कच्चे व अर्द्ध पक्के पाए जाते हैं| शैक्षिक, रोजगार स्तर निम्न होने के कारण यहाँ निम्न, निम्न माध्यम, मध्यम आय वाले लोग पाए जाते हैं| यहाँ के निवासियों की सामाजिक-आर्थिक स्थिति आज भी पिछड़ी हुई है| सामाजिक स्तर पर भी ये निवासी पिछड़े हुए है परन्तु धीरे- धीरे विकास हो रहा है|

परिकल्पना 2: उदयपुर की कच्ची बस्ती के निवासियों का जीवन स्तर सूचकांक निम्न है|

निष्कर्ष: इस अध्ययन के अंतर्गत यह परिकल्पना अस्वीकृत हुई है| इस अध्ययन के अंतर्गत प्रतिदर्श में 71.25 प्रतिशत निवासी श्रेष्ठ जीवन स्तर के अंतर्गत पाए गए| वहीं 26.25 प्रतिशत निवासी अच्छे जीवन स्तर की श्रेणी में पाए गए| केवल 2.5 प्रतिशत निवासी ही ऐसे पाए गए जो निम्न स्थिति में जीवन यापन कर रहे हैं|

परिकल्पना 3: प्रतिदर्श में उदयपुर की चारों कच्ची बस्तियों औसत जीवन स्तर सूचकांक में कोई अंतर नहीं है|

निष्कर्ष: इस परिकप्ल्पना की जाँच के लिए काई-वर्ग परीक्षण का उपयोग किया गया| यह परिकल्पना स्वीकृत हुई| तथा इससे यह निष्कर्ष प्राप्त हुआ कि प्रतिदर्श में उदयपुर की चारों कच्ची बस्तियों औसत जीवन स्तर सूचकांक में कोई अंतर नहीं है| सभी में जीवन स्तर एक समान ही है|

परिकल्पना 4: शिक्षा का जीवन स्तर पर कोई प्रभाव नहीं पड़ता है|

निष्कर्ष: इस अध्ययन के अंतर्गत यह परिकल्पना अस्वीकृत हुई है| काई-वर्ग परीक्षण द्वारा जाँच करने पर यह निष्कर्ष पाया गया कि शिक्षा का जीवन स्तर के साथ सम्बन्ध है तथा शिक्षा का जीवन स्तर पर प्रभाव पड़ता है|

6.2 उदयपुर की कच्ची बस्तियों की मुख्य समस्याएँ

1. महिला शिक्षा पर अधिक ज़ोर नहीं दिया जाता है| पुरुषों के मुकाबले महिलाओं का साक्षरता स्तर कम है|
2. महिलाओं की आर्थिक कार्यों में भागीदारी बहुत कम पाई गयी है|

   महिलाओं को आर्थिक कार्यों की स्वतंत्रता प्राप्त नहीं है| अधिकतर महिलाएं आज भी गृहिणी के रूप में जीवन यापन कर रही है|
3. महिलाओं में शिक्षा व आर्थिक कार्यों को लेकर जागरूकता में भी कमी पाई गयी है|
4. प्रतिदर्श के निवासियों के मकान कच्चे हैं| वर्षा के समय इन कच्चे मकानों में अत्यधिक नुकसान हो जाता है|
5. अधिकतर निवासी सार्वजनिक नलों पर पानी के लिए निर्भर हैं परन्तु यहाँ केवल 1-2 घंटे व रोज पानी नहीं आता है| जिसके कारण यहाँ पानी की सुविधा की कमी पाई जाती है|
6. यहाँ पर सड़क, पेयजल, रोड़ लाइट्स, नालियों के निकासी की काफी समस्या है|
7. पक्की सड़कों के अभाव, नालियों की उचित निकासी, उचित सफाई व्यवस्था में कमी के कारण बारिशों में कीचड़ हो जाता है जिससे अनेक रोग उत्पन्न हो जाते हैं तथा वातावरण भी दूषित हो जाता है|
8. कच्ची बस्तियों में शैक्षिक व रोजगारों का स्तर निम्न पाया जाता है|

अतः कच्ची बस्तियों में अनेक सामाजिक, आर्थिक समस्याएं विद्यमान हैं| अगर सरकार द्वारा प्रयत्न किये जाये तो इन समस्यों का अंत संभव है तथा इन क्षेत्रों का विकास भी संभव है|

कच्ची बस्तियों के अध्ययन के आधार पर निम्न सुझाव दिए जा सकते हैं|

6.3 निराकरण के सुझाव:

1. कच्ची बस्ती के निवासियों की आर्थिक रूप से समृद्ध बनाने के लिए लघु रोजगार व कुटीर उद्योगों से जोड़ने के लिए योजनायें बनाई जानी चाहिए|
2. पर्यावरण प्रदूषण से बचाने के लिए कच्ची बस्ती का प्रत्येक घर स्वतंत्र स्वच्छता सुविधा के लिए भूमिगत जल निकासी प्रणाली से जुड़ा हुआ होना चाहिए|
3. पानी की कमी को पूरा करने के लिए सरकार के द्वारा कच्ची बस्ती की हर गली में नियमित व समय पर पानी की आपूर्ति की जानी चाहिए|
4. कच्ची बस्ती में सरकार द्वारा उचित सड़क प्रकाश व्यवस्था व पक्की सड़कों का निर्माण करना चाहिए|
5. वयस्क शिक्षा के लिए प्रशिक्षितों के माध्यम से कच्ची बस्तियों में गुणवत्तापूर्ण शिक्षा का प्रावधान सरकार के द्वारा किया जाना चाहिए|
6. महिलाओं के पर्याप्त प्रशिक्षण तथा कौशल उन्नयन का प्रावधान किया जाना चाहिए|
7. महिलाओं के लिए सिलाई, कढ़ाई, कंप्यूटर टाइपिंग, खाद्य संस्करण, कंप्यूटर शिक्षा की उचित योजनायें बनायीं जानी चाहिए जिससे महिलाएँ शिक्षित हो तथा आर्थिक कार्यों में भी भागीदारी को बढाया जा सकता है| महिलाओं की स्थिति को सुधारने के लिए उनमें जागरूकता लाने की भी आवश्यकता है|
8. युवाओं को नौकरी के लिए ज्ञान व प्रशिक्षण शिक्षा का प्रावधान किया जाना चाहिए| युवाओं को कंप्यूटर, मैकेनिकल ड्राइविंग, इलेक्ट्रिकल कौशल, इलेक्ट्रॉनिक मरम्मत और वेल्डिंग आदि का प्रशिक्षण दिया जाना चाहिए जिससे युवाओं को रोजगार भी प्राप्त हो सके|
9. कच्ची बस्ती में विकास की गति को बढ़ाने के लिए स्वयं सेवी संस्थाओं को भी आगे आना चाहिए|
10. यहाँ के निवासियों को शिक्षा के साथ प्रोफेशनल कोर्स का भी ज्ञान देना चाहिए जिससे उनके रोजगार का स्तर भी बढ़े|

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AN EMPIRICAL STUDY OF NON-PERFORMING ASSETS IN INDIAN BANKING SYSTEM

DISSERTATION

For M.A. Economics

(Department of Economics)

Faculty of Social Science

Mohanlal Sukhadiya University, Udaipur (Rajasthan)

2020

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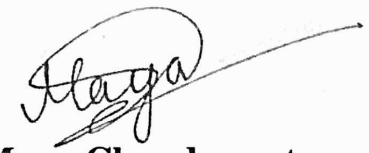
AFFIDAVIT

I humbly acknowledge that the dissertation "**AN EMPIRICAL STUDY OF NON-PERFORMING ASSETS IN INDIAN BANKING SYSTEM**" is an original study I undertook under the supervision of **Dr. Deepa Soni** to submit it for the second paper of **M.A. Economics IV Semester – " Project Work – Dissertation " (M4ECO02-CT-20).**



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ABSTRACT

The future of the banking system will be increasingly dependent on the complexities of risk management and the most important aspect of that process is the management of credit risk. As Indian banks step into the modern high-powered financial operations and trading environment, more sophisticated and consistent risk assessment models as well as post-disbursement monitoring will be needed. The NPA definition, adopted by the Reserve Bank in 1992, is the outcome of the recommendations of the Narsimham Committee on financial sector reforms. The Committee noted that the bank's income recognition strategy should be very pragmatic and should be based on a record of recovery rather than on any subjective consideration. Indian banking system is considered as one of the major banking networks in the world. It has seen many changes over last two decades. In financial term a non-performing asset is explained in term of inability of repayment by the borrowers. In our study we have used the econometric tools and statistical tools. This work seeks to study the major determinants of NPA in scheduled commercial banks of India. Also we have ascertained the impact of NPA on profitability and financial soundness of public, private and foreign banks. To check the impact of NPA on profitability we have taken two major variables i.e Return on Asset (ROA) and Return on Investment (ROI). We have taken 2004-2018 as the time period for our study. We have used secondary data for our study.

INDEX

S. No.	Chapter Name	Page No.
1.	Introduction	1-15
2.	Review of Literature	16-35
3.	Trends And Determinants of Non-Performing Assets in India	36-62
4.	Impact of NPA on Profitability and Financial Soundness of Banks	63-81
5.	Policy Implications and Conclusions	82-93
	Suggestions	94
	Bibliography	95-99

CHAPTER -1

INTRODUCTION

A country's development can be better judged by the economic growth of that country. Financial system guide the economic growth of the country. A strong financial system is needed to attain the objectives of glorifying and making strong the real economy to grow. The banking system of the country is the leading part of the financial sector of the country. Banking system quicken the flow of funds in the economy and accelerates economic growth. In the business sector; the efficiency is evaluated based on profitability likewise the efficiency of banks is evaluated based on profitability and quality of assets. Indian banks are divided into non-scheduled banks and scheduled banks. Scheduled banks are classified into two groups: Indian scheduled banks and Foreign scheduled banks. The Indian banking system has undergone many transformation following financial sector reforms. Indian banking system is adopting international best practices with a vision to strengthen the banking sector. Many rules and regulations are introduced, which are helping banks in improving their efficiency and cutting down the NPA to improve the financial health in the banking system.

In any country, banking framework assumes an imperative function in the improvement of its sound economy. India isn't a special case. Brokers are the caretakers and merchants of the fluid capital of the nation. The first capacity of the financial framework is to prepare the investment funds of the individuals by tolerating stores from general society. The investor turns into the trustee of the excess assets of people in general. Thus lies the difficult obligation of the financier in invigorating and activation of overflows. Well sew banking framework makes sure about a decent establishment for a nation‟ s modern and financial advancement. The function of banking in advancing turn of events and development particularly with regards to arranging and breaking the endless loop of neediness and to recover the economy from the snare of underdevelopment involves principal significance, especially when our nation is in transit of advancement. The financial area is an essential monetary help area supporting advancement designs through channelizing assets for beneficial reason, intermediating stream of assets from surplus to shortage units and supporting monetary and monetary arrangements of government. The significance of bank strength in a creating economy is imperative as trouble influences the advancement designs in this manner the financial advancement. The Indian financial area represents a significant bit

of monetary intermediation and recognized as primary vehicle for money related approach signals, credit channel and facilitator for installment framework.

Despite the fact that the financial area in India has indicated stupendous advancement since nationalization, there has been huge decrease in profitability and productivity bringing about disintegration of benefit. To confront the worldwide difficulties and to keep up the liquidity and benefit, it is basic to keep up the non performing resources at low level through proficient recuperation of credits before they become awful. In India the extent of the issue of terrible obligations was acknowledged distinctly in early periods. Hence following the suggestion of Narasimham Council and Verma Board a few stages have been taken to take care of the issue of nonperforming resources (up to this point will be alluded to as NPA)in the accounting report of the banks. It is consistently communicated from each corner that there has seldom been any efficient assessment of the most ideal method of handling the issue. There is no consistency in the use of NPA standards, since the time these have been perceived. NPA of individual banks which is communicated as a numerical normal for the whole bank can't pass on a reliable picture. The situation isn't so easy to be summed up for the business all in all to endorse a readymade bundle of normal answer for all banks and for all occasions. The Indian financial framework has gone through huge change following monetary area changes. It is embracing worldwide accepted procedures with a dream to fortify the financial area. A few prudential and provisioning standards have been presented and these are pressurizing banks to improve productivity and trim down NPAs to improve the monetary wellbeing in the financial framework. In the foundation of these turns of events, this examination endeavors to analyze the situation of Non-Performing Resources of public area banks, private area banks and unfamiliar banks.

Before the evolution' banking' and establishment of banks , the financial activities were carried by the sahukaars or we can say moneylenders and individuals. They exploited people by taking high interest rates and there was no uniformity on the interest rates. To ensure the safety of people and to overcome all these problems the organized banking sector was established which was only regulated by government.

Credit availability is very essential for growth and development of the banking structure. Decreasing growth rates for credit with rising NPAs are not good news for the banking system in general. The future of banking structure will depend mostly on the risk management and the credit management. Credit risk is about 70% of bank's total risk, the rest

of the 30% risk is being shared by market risk and operational. It is very important for banks to deal with operational and credit risk in a developing economy like India.

According to Banking Regulation Act, "Banking means the accepting for the purpose of lending or investment of deposits of money from the public, repayable on demand or otherwise and withdrawn by cheque, draft, and an order or otherwise.

The primary functions of the banking system are:

a) Accepting deposits

The amount of money that a customer hands over to the banking institutions is known as deposit.

TYPES OF DEPOSITS

- Saving deposit
- Fixed deposit
- Current deposit
- The recurrent deposit

On the basis of types of deposits and the frequency of depositing there are various deposit schemes.

b) Granting loans and advances

The bank grants people loan on time-interest basis. Banks also gives advances to its customers. The other services bank provides are overdraft, cash credits, loans, and discounting of the bill of the exchange.

HISTORY OF INDIAN BANKING SYSTEM

Banking system can be broadly categorized in two phases:-

- Pre-independence phase year(1786-1947)
- Post-independence phase year(1947-till date)

In India, there are 26 public sector banks, out of these 21 are nationalized and 5 are SBI and its associates; total 92 commercial banks in India. Indian banking system originated in the last 18th century. The first banks were The General Bank of India, and Bank of Hindustan that started in 1790 respectively; both are now non-operational.

POST-INDEPENDENCE PHASE may be divided into three phases:-

- Pre- nationalization period (1947-1969)
- Post – nationalization period (1969-1991)
- Liberalization period (1991 to till date)

PRE- INDEPENDENCE PHASE YEAR (1786 TO 1947)

The evolution of banking system in India is attached with the foundation of Bank of Calcutta in 1786. In the last decade in the 18th century with the foundation of the English agency houses in Bombay and Calcutta (now Kolkata).Three presidency banks; Bank of Bengal, Bank of Bombay and Bank of Madras established in the 19th century under the charter of the British East India Company. In 1935, the presidency banks merged together and formed a new bank named "Imperial Bank of India"; subsequently named the State Bank of India.The first Indian owned "Allahabad Bank" was set up in 1865 in Allahabad. It is the oldest joint stock bank in India.In 1895,"the Punjab National Bank" was established. The Bank of India was established in 1906 in Mumbai.Many commercial banks such as Indian Bank, Bank of Baroda, Canara Bank were founded between the year 1906-1913 under the Indian ownership.In year 1935, the central Bank of India (RBI) was established on the recommendation of Hilton young commission. In this phase banks were limited upto the urban population of the country. The rural and agricultural sector was fully neglected.

POST-INDEPENDENCE PHASE YEAR (1947-TILL DATE)

At the time of independence, the rural population was dependent on small moneylenders "sahukaars" for their money requirements. At that time banking system was under private ownership. To solve the above mentioned issues the government of India nationalized the Reserve Bank of India in 1949 for better development of the economy.In 1955 the Imperial Bank of India was nationalized and named as the " State Bank of India". The Banking regulation Act was enacted in 1949.

NATIONALISATION PERIOD (1969 TO1991)

IN 1969, government of India nationalized 14 major banks.

1. Allahabad bank
2. Bank of India
3. Punjab national bank
4. Bank of Baroda
5. Bank of Maharashtra

6. Central bank of India
7. Canara Bank
8. Dena bank
9. Indian overseas bank
10. Indian bank
11. United bank
12. Syndicate bank
13. Union bank of India
14. UCO

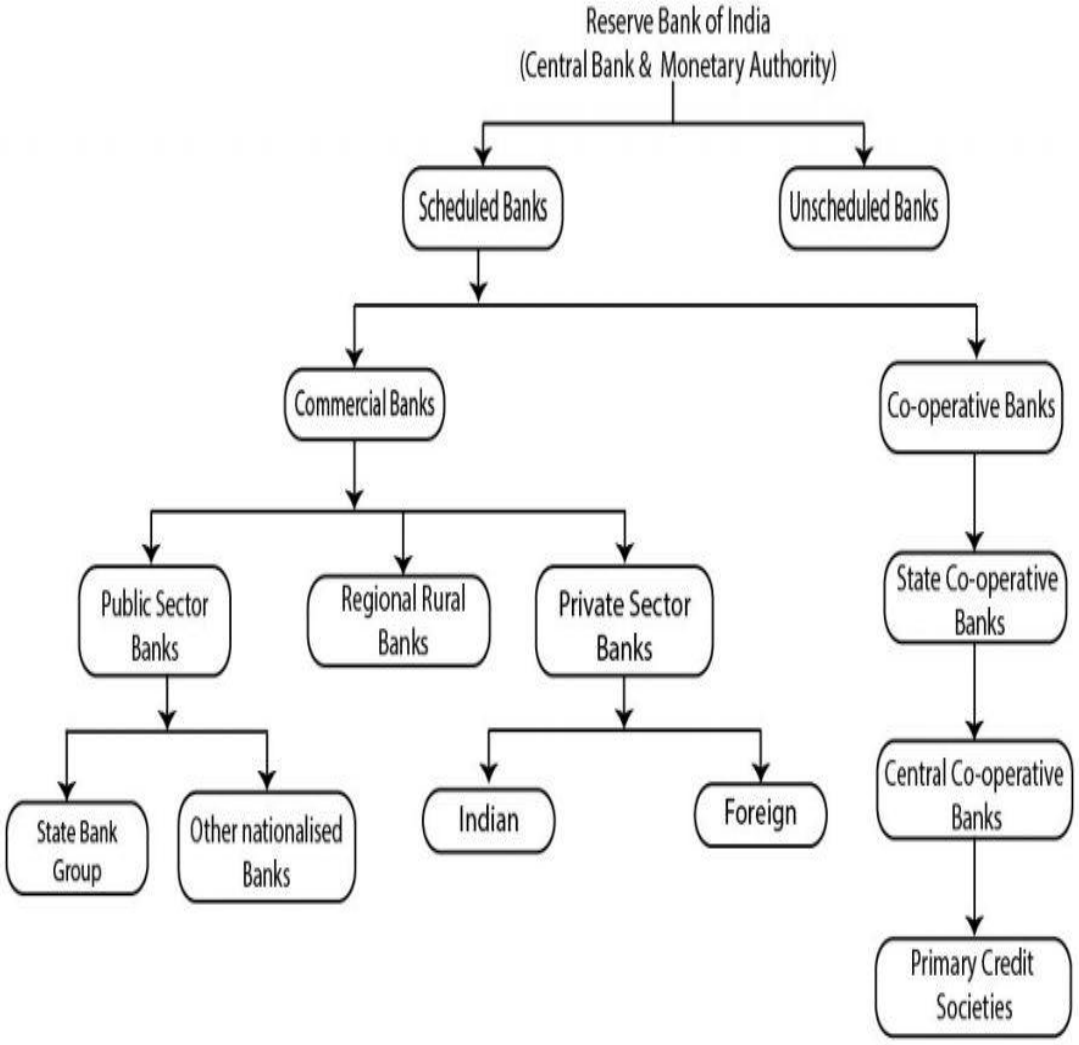
The Banking system in India after the nationalization developed with a rapid pace. But the problem of finance in rural area remained same as before. To solve this" NARSIMHAN COMMITTEE " in 1974 put forward the idea of establishing regional rural banks(RRB).On 2nd October 1975, RRBs were established. Further, six banks more were nationalized in year 1980.

1. Andhra bank
2. Corporation bank
3. New bank of India
4. Oriental bank of commerce
5. Punjab and Sindh bank
6. Vijaya bank

LIBERALISATION PHASE (1990 TO TILL DATE)

The government of india set up a committee under the chairmanship of Shri M. Narsimhan . They wanted to improve financial stability and profitability of public sector banks.Because of this situation; they decided not to nationalize banks further. And they decided to allow foreign banks to open their branches/offices in India.The committee decided to give equal treatment to public banks and private banks by the government and RBI.Foreign and Indian banks were allowed to establish the joint ventures and other forms of financial services.In India, there are 26 public sector banks, out of these 21 are nationalized and 5 are SBI and its associates; total 92 commercial banks in India.

INDIAN BANKING STRUCTURE



The Reserve Bank of India

The Reserve Bank of India (RBI) is the apex institution in the financial system and act as the main regulator of credit. The central bank of the country is the Reserve Bank of India (RBI), which was established in April 1935 with a share capital of Rs. 5 crores based on the recommendations of the Hilton Young Commission. The share capital was divided into shares of Rs. 100 each fully paid and was entirely owned by private shareholders in the beginning. The Government held shares of nominal value of Rs. 2, 20,000. Other key financial institutions are the commercial banks (in the public and private sector), regional rural banks, cooperative banks and development banks. Nonbanking financial institutions include finance and leasing companies and other institutions like LIC, GIC, UTI, Mutual

funds, Provident Funds, Post Office Banks etc. 6 Reserve Bank of India was nationalized in 1949. The general superintendence and direction of the Bank was entrusted to Central Board of Directors of 20 members, the Governor and four Deputy Governors, one Government official from the Ministry of Finance, ten nominated Directors by the Government to give representation to important elements in the economic life of the country, and four nominated Directors by the Central Government to represent the four local Boards with the headquarters at Mumbai, Kolkata, Chennai and New Delhi. Local Boards consist of five members each Central Government appointed for a term of four years by Central Government to represent territorial and economic interests and the interests of co-operative and indigenous banks. The Reserve Bank of India Act, 1934 was commenced on April 1, 1935. The Act, 1934 (II of 1934) provides the statutory basis of the functioning of the Bank.

ESTABLISMENT

The Reserve Bank of India was established on April 1, 1935 in accordance with the provisions of the Reserve Bank of India Act,1934. It was setup on the basis of the recommendations of Hilton Young Commission. It is also known as Apex Bank of India. RBI is fully owned by Government of India.

Before its central office was established in Kolkata but was permanently moved to Mumbai in 1937.

MAIN FUNCTIONS OF RBI

- Monetary authority
  It formulates, implements and monitors monetary policy.
  It maintains the price stability and the objective of growth.
- Regulator and supervisor of the financial system.
- Manager of foreign exchange
- Issuer of currency
- Developmental role
- Regulator and supervisor of payment and settlement systems
- Bankers to the government
- Banker to the banks

The banking system is one of the essential component or we can say that it is one of the pillar of an economy for the country. Indian banking system is considered as one of the major banking network in India. Due to the introduction of new innovations in banking like computerization has made it super easy in day to day life. Transactions are super easy now a days. Indian banking system is governed by the Reserve Bank Of India, central bank of India.The financial Framework in India has come a distant, from being a tired business establishment to a profoundly proactive and energetic substance. This change has been essentially achieved by the progression and financial changes. It has permitted banks to investigate new business openings as opposed to creating incomes from customary streams (for example acquiring and lending).Presently, Indian banking was created to provide food to the developing monetary requirements of its exchange and industry. The constituents and the major players of the current financial framework in India have been of shifting inception and sizes.

INDIAN BANKING INDUSTRY-CURRENT SENARIO AND GENERAL STRUCTURE

Public sector banks having approx. 57500 branches across the country, representing over 80% of the total branches in the country and account for 75% of the assets. Indian banking system over the past 5 decades in general and last two and half decades in particular, has witnessed a dynamic change in the field of commercial banking. At present Indian banking is able to reach in rural India. In terms of quality of assets and capital adequacy, Indian banks are considered to have strong, clean and transparent balance sheets. Indian private banks and foreign banks are growing fast and gaining a larger share and will surely become a major player in future.To strengthen the banking system in an increasingly competitive environment and guard against financial fragility. India has adopted international prudential norms and practices with regard to income recognition, capital adequacy, provisioning requirements supervision and these norms have been increasingly tightened over the years.

NON-PERFORMING ASSETS: A CONCEPT

A Non-performing resource (NPA) is characterized as a credit office in regard of which the interest and additionally portion of Bond money chief has remained „past due‟ for a predetermined timeframe. NPA is utilized by monetary foundations that allude to credits that are in danger of default. When the borrower has neglected to make interest or standard installments for 90 days the advance is viewed as a non-performing resource. Non-

performing resources are hazardous for monetary establishments since they rely upon interest installments for money. Irksome weight from the economy can prompt a sharp expansion in non-performing advances and regularly brings about huge compose downs.). The Indian financial area has been confronting extreme issues of raising Non-Performing Resources (NPAs). The NPAs development straightforwardly influences the benefit of banks. The issue of NPAs isn't just influencing the banks however is influencing the economy overall. Truth be told significant level of NPAs in Indian banks is only an impression of industry and exchange. NPA don't produce any pay, while, the bank is needed to make arrangements for, for example, resources. (Olekar and Talawar, 2012). NPAs don't simply reflect severely in a bank‟ s account books, they antagonistically sway the working of economy.The concept of Non-Performing Assets is not altogether unknown to India banking. Previously, banks had a method of recognising or triggering sticky accounts.Such accounts were classified as issue credits or poor and questionable debt, as a concern.The repayment of interest/installments in such accounts was either not easily obtained according to the schedule or the recovery of interest/installments could not be entirely effected due to the erosion of securities paid to them with the persistent application of interest/other charges regardless of recovery. In any case, on account of such a credit portfolio, the banks were liable to losses.

According to RBI,

a) An asset, including a leased asset, becomes non-performing when it ceases to generate income for the bank.

b) A non-performing asset (NPA) is a loan or an advance where;

i. Interest and/ or instalment of principal remain overdue for a period of more than 90 days in respect of a term loan,

ii. The account remains „out of order‟ as indicated at paragraph 2.2 below, in respect of an Overdraft /Cash Credit (OD/CC),

iii. The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,

iv. The instalment of principal or interest thereon remains overdue for two crop seasons for short duration crops, the instalment of principal or interest thereon remains overdue for one crop season for long duration crops,

v. The instalment of principal or interest thereon remains overdue for one crop season for long duration crops,

vi. The amount of liquidity facility remains outstanding for more than 90 days, in respect of a securitisation transaction undertaken in terms of guidelines on securitisation dated February 1, 2006.

vii. In respect of derivative transactions, the overdue receivables representing positive mark-to-market value of a derivative contract, if these remain unpaid for a period of 90 days from the specified due date for payment.

c) Banks should, classify an account as NPA only if the interest due and charged during any quarter is not serviced fully within 90 days from the end of the quarter.

d) 'Out of Order' statuses: An account should be treated as **'out of order'** if the outstanding balance remains continuously in excess of the sanctioned limit/drawing power. In cases where the outstanding balance in the principal operating account is less than the sanctioned limit/drawing power, but there are no credits continuously for 90 days as on the date of Balance Sheet or credits are not enough to cover the interest debited during the same period, these accounts should be treated as **'out of order'**.

e) 'Overdue': Any amount due to the bank under any credit facility is „overdue" if it is not paid on the due date fixed by the bank.

(Source-**RBI**)

Banking is lending, finance the business by deposits from customers. When the banks lend loans; the banks face the risk of default by the borrower in the payment. This is known as credit risk; where the borrower is not able to repay the payment of interest or principal are known as non-preforming assets.Non – performing assets are present in every bank as its advance portfolio and are the inherent part of banking. But if there is high level of NPA in any financial institution than it is something serious to think. Credit availability is important for growth and development and also important for the banking structure. Rising NPA and decreasing growth rates for credit are not good for the banking structure they need to take steps to stop this downward slide.

The history of NPA is from the days of Gold Smith banking in 17th century in England. The asset quality and the problem of bad loan which are generally defined in banking as NPA can be marked back from that period. NPA existed from that time because Gold smith's were not able to recover their loan amounts.NPA is the main cause for the economic crisis of many nations. Bad asset quality and lending bad loans to the borrowers by the bank are the reason.The increasing proportion of NPA in the advances of the banks seeks the attention of the government, banks, economists and other people(public).Since 1976, banks are following

norms regarding treatment to identify bad and doubtful debt accounts.They have instructed to all the branches to cease charging interest on doubtful advances, according to the criteria laid down, disregarding of whether the suits are filed for recovery of the dues or not. The criteria then adopted for the purpose were non- payment of the interest applied during the last four relevant period.

Types of NPA : Gross NPA and Net NPA

Gross NPA:

Gross NPA (non-performing asset) refers to overall quantity of loans that have gone bad debts. It consists of all the nonstandard assets like as sub-standard, doubtful, and loss asset. Gross NPA is a non standard asset, on which bank has made provisions, and which is still held in banks' books of account.

"**Gross NPAs Ratio = Gross NPAs / Gross Advances**"

Net NPA:

Net NPAs are those advances which are obtained after deducting the provisions from Gross NPA. Net NPA shows the actual burden of banks. The banks have to make certain provisions against the NPA's according to the RBI guidelines.

"Net NPAs = Gross NPAs – Provisions / Gross Advances – Provisions"

CAUSES OF NPA

A strong banking sector is important for a flourishing economy. Other industries will be adversely affected by the collapse of the banking sector. Operating in a closed economy, the Indian banking system is now facing the challenges of an open economy. The directed loan structure in which commercial banks are expected to provide a specified percentage of their credit (40%) to priority sector is only the key sector contributing to the NPA in the banking sector.

The factors for NPA are 1) Internal Factors and 2) External Factors

Internal Factors

1. **Funds borrowed for particular purpose are not utilized for the same**
2. **Defective lending process**: In lending systems, there are three principles adopted by commercial banks, i.e. the protection principle, the liquidity principle, the profitability

principles. The safety theory assumes that the creditor is in a position to pay back the credit.The banker should therefore take the utmost care to ensure that the banker is the company or enterprise for which a loan is obtained is a sound one and the borrower should be a person of honesty and good character who is competent to carry it out successfully.

3. **Inappropriate technology**: Because of inappropriate technology and administration Market-driven decisions should not be made on a real-time basis by the information system. So all the banks' branches should be updated to the present scenario.
4. **Improper SWOT analysis:** The inappropriate strength, weakness, opportunity andthreat analysis is another reason for increase in NPA's. so the bank should examinethe profitability, viability, long term acceptability of the project while financing.
5. **Poor credit appraisal system: D**ue to poor credit appraisal the bank gives advances to those who are not able to repay it back. As a result the NPA's of the bank increases so the bank should maintain proper credit appraisal system.
6. **Managerial deficiencies**: The banker should always select the borrower very to safeguard its interests, tangible assets should be taken carefully and taken as protection. The banker should adopt the risk diversification theory, which means that the banker should not only award advances to a few large companies or concentrate them in a few industries or towns.
7. **Absence of regular follow up**: The irregularities in spot visit also increase the absence of frequent visits by bank officials to the consumer point of the NPA reduces the accumulation of interest and the loan principal.
8. **Incomplete and faulty documentation:** There should thorough verification by the officials on the documents submitted by the borrowers.

EXTERNAL FACTORS

1. **Ineffective recovery tribunal**: the government has set the number of recovery tribunals working to recover loans and advances, the bank suffers the consequence of non-recovery due to their carelessness and ineffectiveness in their work, thus reducing their profitability and liquidity.
2. **Willful Defaults:-** The Indian Public Sector Banks are worst hit by these defaults. Itis a default in repayment obligation.Ex: Kingfisher Airlines Ltd. Is one among many of

those willful defaulters. Others areBeta, Napthol, Winsome Diamonds & Jewellery Ltd., Rank Industries Ltd., XLEnergy Ltd. etc.

3. **Natural calamities**: This is the calculation element that causes the PSBs' NPAs to increase alarmingly. Basically, our farmers rely on rainfall for cropping because the farmers are unable to achieve the level of output due to rainfall anomalies and are thus unable to repay the loans. So the banks have to make a large number of provisions to pay for those loans.
4. **Industrial sickness**: inadequate project management, ineffective management, lack of adequate resources, lack of advanced technology, day-to-day changes in government policies cause industrial sickness, so the banks that finance those industries end up with a low loan recovery by reducing their profit and liquidity.
5. **Lack of demand:** India's entrepreneurs were unable to forecast their product demand and began development, eventually piling up their product. In order to operate these operations, they are also unable to pay back the money they borrow. The banks therefore report the unrecovered section as NPA's and have to provide for it.

Table-1.1NPA OF ALL THREE SECTORS

Year	Public Sector Banks	Private Sector Banks	Foreign Banks
2005	5.4	3.9	3
2006	3.7	2.5	2.1
2007	2.7	2.2	1.9
2008	2.2	2.5	1.9
2009	2	2.9	4.3
2010	2.2	2.7	4.3
2011	2.2	2.2	2.5
2012	3	1.9	2.7
2013	3.6	1.8	3
2014	4.4	1.8	3.9
2015	5	2.1	3.2
2016	9.3	2.8	4.2
2017	11.7	4.1	4
2018	14.6	4.6	3.8

SOURCE-RBI

In light of the economic distress caused by the outbreak of Covid-19 pandemic, the Reserve Bank of India (RBI) has announced slew of measures to tackle the situation. Asset classification benefit extended by RBI – '90-day NPA norms' shall not apply on standard accounts and there will be a standstill on asset classification of such standard accounts during moratorium period. However, lending institutions shall make provisions of not less than 10 percent of the total outstanding of such accounts to be equally phased for quarter ending 31 March 2020 and 30 June 2020. Relevant disclosures will have to be made in respect to the provisioning and amount where asset classification benefits is extended by lending institutions in accounts.

Effects of NPA

The following are the some of the major problems faced by banks due to NPA's:

1) **Effect on Profitability of Banks:** As NPA's cease to generate income for the banks it will reduce the net interest income of the banks. As NPA's goes on increasing, the net income of the banks will decrease.The cumulative loss of public sector banks crossed a whopping Rs 87,357 crore in the 2017-18 fiscal.

2) Increase in provisions of banks: RBI has introduced prudential norms for income recognition and asset classification for Indian banks and financial institutions, to ensure proper provisioning and transparency in the published accounts. In agreement with the prudential norms of RBI, banks need to provide provision on Non- Performing Assets. The provisions are made by banks on the basis of classification of assets into Non-Performing Assets. This provision led to substantial provisioning of Rs 5.1 lakh crore in between March 2015 to march 2018.

3) Liquidity position: NPA's affects the liquidity position of the banks, thereby creating a miss-match between assets and liquidity and force the banks to raise resources at high cost. The increased NPAs may pose liquidity issues which is likely to lead run on bank by depositors.

4) Effect on MSMEs: The disbursement of loans mainly with the large scale firms, this made banks reluctant to issue loans to small scale industries. So MSME suffer from lack of funds from the banks and has to borrow from other sources which would increase their cost of capital.

5) Shareholders' confidence: Normally, shareholders are interested to enhance value of their investments through higher dividends and market capitalization which is possible only when the bank posts significant profits through improved business. The increased NPA level is likely to have adverse impact on the bank business as well as profitability thereby the shareholders do not receive a market return on their capital and sometimes it may erode their value of investments.

6) Burden to Government: Since the Government is the majority shareholder in the public sector banks, it has to provide equity capital, if the banks are struggling. As NPA's are increasing PSB's are struggling, so the government needs to provide capital to the banks.

7) **Higher cost of capital:** It shall result in increasing the cost of capital as banks will now have to keep aside more funds for the smooth working of its operations. To generate income and meet the expenses the banks will increase the interest rates.

8) **Declining productivity:** Loans given by the banks are the assets to the banks. Since the Assets (NPA's) of the banks ceases to generate income for the bank there will be decrease in the income which leads to decrease in productivity of the bank's assets.

9) **Asset (Credit) contraction**: The increased NPAs put pressure on recycling of funds and reduces the ability of banks for lending more and thus results in lesser interest income. It contracts the money stock which may lead to economic slowdown.

10) **Public confidence**: Credibility of banking system is also affected greatly due to higher level NPAs because it shakes the confidence of general public in the soundness of the banking system.

11) **Ultimate burden on society:** It will ultimately affect the consumer who now will have to fetch out more money for paying higher interest. It will lead to lower growth and higher inflation because of the higher cost of capital.

CHAPTER-2

REVIEW OF LITERATURE

A literature review or narrative review is a type of review article. A literature review is a scholarly paper presenting current information on a specific subject, providing substantive results as well as theoretical and methodological contributions. Reviews of literature are secondary sources and report no new or original experimental work. Such reviews are found in scholarly journals, most frequently affiliated with academic-oriented literature, and should not be confused with book reviews that may also appear in the same publication. In almost every academic field, literature reviews are the basis for study.As part of a peer-reviewed journal article reporting new studies, a narrow-scope literature review may be included, helping to situate the current study within the body of the related literature and provide the reader with context. In such a case, the review usually precedes the methodology and results sections of the work.

It can also be part of graduate and post-graduate student work to create a literature review, including in the preparation of a thesis, dissertation, or a journal article. Reviews of literature in a research proposal or prospectus are also popular (the document that is approved before a student formally begins a dissertation or thesis).

NPA is a hot topic for the banking sector, and several authors have tried to explore the reasons for NPA, the problems generated by NPA, and the effect of NPA on the banking sector, as well as seeking a solution or remedy to the growing NPA problem.

Kokane. &Nerlekar. (2017)

In their study,Recapitalization of public sector banks - The relationship between the non-performing asset levels of public sector banks with each bank's Capital Adequacy Ratio over a period of time will be analysed by the Non-performing Asset.

The finding of the research indicates negative correlation between NPA and CAR which bring conclusion that infusion of capital will help banks over their declining nonperforming assets. Author suggested that with the increased capital in the balance sheet the NPA will be equally balanced out.

Singh (2016), in his study on "Non Performing Assets of Commercial Banks and its Recovery in India" analyzed the impact of NPAs on the Bank‟ s financial performance and

felt that the ineffective recovery mechanism, willful default and defective lending process were the important factors for the rising NPAs. This study concludes that since rising NPAs is comparatively higher in Public sector Banks than private sector Banks, the government should take strategic plan to reduce the NPA burden.

V.Subhamathi (2016) in her study entitled "A Comparative Study on Non Performing Assets of Banks in India by using Correlation," analyzed the significant relationship between NPA and profitability of both Public and Private sector Banks and concluded that the Private sector Banks have more NPAs than the Public sector Banks during 2011-15.

Jain.D, Saini.R (2015) in their study entitled, "Non-Performing Assets Recovery Channel: An Assessment of Securitization Act, 2002," examined the impact of SARFAESI Act in the recovery of NPA, and also studied about the trend of NPAs recovery under SARFAESI Act. The study found that there is a significant difference in the rate of recovery between 2007-08 and 2012-13. The rate of recovery under SARFAESI Act had declined during the study period; and the study concluded that the performance of SARFAESI Act is not remarkable.

Narula and Singla (2014) evaluate the non – performing assets of Punjab National Bank and its impact onprofitability & to see the relation between total advances, Net Profits, Gross & Net NPA. The study uses the annualreports of Punjab National Bank for the period of six years from 2006-07 to 2011-12. These papers conclude thatthere is a positive relation between Net Profits and NPA of PNB. It is because of the mismanagement on the side ofbank.

Arora and Ostwal (2014) conducted study on "Unearthing the Epidemic of Non-Performing Assets: A Study ofPublic and Private Sector Banks" which deals with the concept of Non-performing assets and analyze theclassification of loan assets of public and private sector banks. It also explores the comparison of loan assets ofPublic sector and private sector banks. The study concluded that private sectors improving due to decline in NPAsratio compare to Public sector banks due to recovery management done in NPAs and suggest that there is need tocheck the NPAs of public sector banks so that Indian banking system becomes efficient.

Srinivas. K T (2013) emphasis on identify the Non-performing assets at Commercial banks in India. This paperhighlights the various general reasons which convert advances/ assets into NPA and also give suitable suggestion onfindings to overcome the mentioned problem.

Sikdar and Makkad (2013) this paper provide insight on the role of NPA in risk frame work of selected Indiancommercial banks and try to put forward the means of interpreting credit risk from existing levels of bank NPAs.Further, research highlights the significant steps taken and procedures implemented by major Indian commercialbanks, within the public and private sector, towards recovery of loans and advances falls into the NPA bracket. Theresearch for the present paper is based on extensive study of annual publications on performance of public sectorand private sector commercial banks by the Indian Banks Association (IBA). Further, annual reports of commercialbanks in focus for the year ending March 2012 have been studied. The study conclude that problem of NPAs can betackled only with proper credit assessment and risk management mechanism.

Siraj and Pillai (2012) investigate the performance of Indian SCBs before and after global financial crisis (2007-09). They examine various aspects of performance and asset quality of those banks, group wise. For the purpose of analyzing the trends average annual growth rate (AAGR) has been computed for selected variables and the output is presented graphically for meaningful inference. They also examine movement of various NPA indicators, gross NPA, net NPA, additions to NPA, reductions to NPA and provisions towards NPA and compare it with total advances and total deposits of banks. The study examines bank-group wise performance data for post-millennium period from 31st March 2001 to 31st March 2011. The study also examines the impact of gross advance and total deposit on incremental NPA with the help of simple regression analysis. A multiple regression model has also been developed with NPA as a dependent variable with total deposits and total advances as independent variable to examine the total effects of these variables in addition to NPAs of the bank. The study observes that increased level of addition to NPA still remain a major concern for banks in India. Though NPA shows improved recovery during first half of last decade, it remained challenging during second half of the period. A notable result is the financial stability of PSBs and increased susceptibility of PrSBs and FBs during financial crisis. **Kumar.V (2012)** in an attempt to study NPA in priority sector advances (PSA) in a commercial bank examines time series data from 2000-01 to 2009-10 of both GNPA and NNPA (on absolute figure as well as ratio data) and presents trend analysis with the help of curve estimation regression

technique. It is observed that a polynomial regression model, particularly a cubic curve is the best fit with very high R2 value, signifying a dependable forecasting model. The researcher has also used multiple linear regression analysis to examine the influence of different variables on gross NPA of SCBs.

Olekar and Talawar (2012) studied NPA management with reference to Karnatak central co-operative bank ltd.,where they described conceptual data about NPA and on the other hand, they calculated few NPA related ratios andused trend projection method to predict next year advances for the bank. Their finding includes the considerablereduction of NPA for the bank and some suggestions for recovery of NPA.

Malyadri and Sirisha (2011) this study examine the NPA of Public Sector banks and Private sector banks ofweaker sections for the period seven years in India. The secondary data compiled from Report on Trends andProgress of Banking in India, 2004-10 which has been analyzed by statistical tool such as percentages andcompound Annual Growth rate. This study reveals that the public sector banks have achieved a greater penetrationcompared to the private sector banks.

Kaur and Saddy (2011) in the research paper entitled "A Comparative Study of Non-Performing Assets of Publicand Private Sector Banks" an attempt is made to clarify the concept of NPA, the factors contributing to NPAs, themagnitude of NPAs, reasons for high NPAs and their impact on Indian banking operations. Besides capital to riskweight age assets ratio of Public and Private sector banks, management of credit risk and measures to control thethreat of NPAs are also discussed.

Hosmani and Hudagi (2011) conducted study on "Unearthing the Epidemic of Non Performing Assets withReference to Public Sector Banks in India" an empirical and descriptive in nature which shows the magnitude andtrend of Public Sector banks in India and found that there is a slight improvement in the asset quality reflected bydecline in the diverse NPA percentage. The study concluded that NPA is an important parameter for assessingfinancial performance of banks in terms of profitability, liquidity and economies of scale in operation and banks hasto take timely action against degradation of good performing assets.

Malyadri and Sirisha (2011) examine trend of NPAs in weaker sections in both PSBs and PrSBs in India. The study is based on the secondary data for seven (7) years i.e. from 2004-2010. The data has been analyzed by statistical tools such as percentages and compound annual growth rate (CAGR). The study observes that the PSBs have achieved a greater penetration compared to the PrSBs so far management of NPAs in the weaker sections is concerned.

Nandy (2011) in his empirical research work observes that differential profit performance has

been attributed to various factors. The objective of the study is to identify these factors and examine whether they have any significant influence on profitability of commercial banks in India. For the purpose of the study a few variables, like interest income, other income, interest expenses, operating expenses, net NPA and spread are identified. With a database covering a period of 2004-07, the study employs multiple correlations and multiple regression technique to examine the relation between above named variables with profitability. The study concludes that interest expenses are the only good predictor for profitability in a bank for the given dataset.

Rawlin and Sharan (2011) in their research paper, 'Modeling the NPA of a Large Indian Public Sector bank as a function of Total Assets' make a sincere attempt to develop a forecasting model for the NPA % both at the gross and net level of one of the India's largest 21PSB. A strong correlation has been observed between gross and net NPA% and the total assets suggesting that the estimate of gross and net NPA can be made from total assets, by fitting to linear and non linear models. A non linear curve estimation model is found to be best fit by virtue of highest R2 value linking both gross and net NPA to advances, provide the best curve fit and the least deviation from actual values. Thus by studying total assets an overall picture of the banks, NPA level can be ascertained and effective strategy can be formulated to address the most formidable problem in the banking industry.

Mujawar.N(2009) In this study Lending has always been associated with credit risk, arises out of the borrower's default in repaying the loan with the stipulated time. In recent years some UCBs, which are mostly engaged in retail banking, have faced mergers and strict action by RBI for having failed to successfully manage their NPAs. The inflating bubble of NPAs may mar the balance sheets of the banks if they fail to adopt better credit monitoring practices

to prevent further slippage of NPAs. In the case study, an attempt has been made to tackle the problem of NPAs. The objective of the study is to understand the concept of NPA and classification of assets.

Gupta.S.C (2009) healthy competition among the banks contributes to the growth of the economy. India resorted to liberalization and deregulation of the banking sector to keep pace with the global changes and to cope with ongoing reforms in real sector. The paper blended various factors such as effective management of NPA, compliance of Basel II norms, Proper implementation of risk management, etc. The author considered certain parameters such as productivity, efficiency, profitability, return on capital, net interest margin and return on assets for assessing the level of NPA.

Sisodiya.AandPemmaraju.R (2009). The study covers Indian banking sector's performance.The analysis of the study shows, the domestic banking sector has done remarkably well on parameters like returns, maintaining profitable growth, and risk management, 45 though there warning signal and underlines the fact that banks have successfully waded through a tough liquidity scenario without hampering the credit growth. The present study is based on the CAMEL methodology which evaluates component that is prime importance from the functioning of the bank's perspective. The model examines the efficiency of banks among parameter like Capital Adequacy, Asset Quality, Management, Earnings Quality and liquidity.

Bhatia (2009) the global economic crisis had a significant impact on the economies and financial systems of several countries. The paper refer to the success of Indian performance is the accumulation of the capital. India's banks have maintained healthy capitalisation levels in the past decade. The author observed that it is necessary and beneficial for the banks to raise capital through hybrid instruments in order to maintain a healthy Capital Adequacy ratio. Banks' healthy and improved capitalization cushions the impact of higher NPAs.

Vaidyanathan (2009) as the economy grows it is necessary to recast financial system to ensure the growth. The author has made a comparison between PSB, Private Bank and NBFC. The study made has been evaluated on the reduction of interest, enhancing credit delivery mechanism, revising relationship. PSB have been geared to Asset Based Lending'

rather than lending based on the forecast cash flows. Thus the author concludes NBFC need to integrate domestic financial markets through the system of making UIBs (unincorporated Bodies).

Kaveri (2008) The Basel Committee on Banking Supervision published a paper on Compliance Functions in Banks in April 2005, which discussed certain principles of compliance. The RBI reviewed the working of compliance system in banks, which was found to be not effective. Subsequently, the RBI set up a working group to make suitable recommendations to strengthen the compliance system. These guidelines cover Compliance Principles, Process, Procedures, Compliance Policy, Compliance Structure, Responsibility of Board and Senior Management, Compliance Risk, Compliance Programme, etc. Paper highlighted various aspects of compliance function in banks.

Sharma and Mishra (2008) one of the fundamental issues in finance is how risk and returns of an investment are related to each other. The Capital Asset Pricing Model (CAPM) was the first concrete step towards finding an answer to the issues suggested. CAPM gives an insight into what kind of risk is related to return, it offers powerful predictions about how to measure the risk and the relation between expected return and risk. The paper dealt with the key ideas of the CAPM, its applications importance in the field of finance and its weakness.

G.C. Goel44 (2008) The Indian banks need to manage their advances portfolio in such a manner that risk factor should be minimised at the early stage of their bearing capacity. The author has resorted to Alternate Dispute Resolution (ADR) which can entail a fair deal to all concerned without unlawful means and pro-court bias. The articles has made an effort to bring awareness to banks and customers for settlement of NPA dues promptly and also settle various other banking disputes in the best interest of both the parties.

Das (2008) last two decades there has been a crisis due to volume and growth of NPA that holds the prime resources resulting in severe strains on the normal resource allocation process essential for development. The author made a study on the factors associated with NPA. The study attributes to the macroeconomic factor such as increasing interest, economic slowdown, and currency devaluation. The observation of the study led to systematic framework with a clear objective, flexibility and adequate financial support was required to resolve the distressed situation and for the strategy to succeed, adequate legal provisions.

Sundararaman (2008) in hot pursuit of NPA the articles dealt with the formation and procedural aspect of DRT which also includes the issue of summons, counter Claim and DRAT (Debt Recovery Appellate Tribunal).The author had considered various factors for the delay in pronouncing the judgement. Thus banks and financial institution should bring about some measures which could bring moral or social pressures upon the concerned borrowers which can act as deterrent for unscrupulous disposal of secured assets.

Janakiraman (2008) Financial innovations had transferred the traditional mortgage loan agreement into an instrument that could trade like stock and bonds. The author observed that losses in the sub-prime mortgage market triggered reaction in other financial markets and affected the entire sector shaking the trust and confidence in the investors in the system as a whole. The paper examined the crisis, highlighted the areas which are likely to be scrutinized and discussed while trying to distil the lesson to be drawn and their implications for policy.

Chithralekha and Nirmala (2008) banks face various risks and it is very essential for the banks to manage risks. Poor risk management can bring down even well-performing organizations. The paper focused on Basel norms and the various challenges and impacts of implementing Basel II in India. For better management of risks, the bank has to understand these norms and implement them. Author has described the challenges and categorised them into people, financial and technical challenges.

Chipalkatti and Rishi (2007) examine whether weaker Indian banks have a tendency to under

provide for loan loss provision and understate gross NPA in order to boost their earnings and capital adequacy ratio by examining bank data over 1996-2002, the period when banks in India faced increasing competition and tight regulatory pressure. The study develops two models to examine the issues and reveals that weak Indian banks identified by low profitability and low capital ratio have understated their bad loans in the post 1999 period and conclude that the magnitude of NPA in these banks may be more grave than is claimed by authorities.

Pal and Malik (2007) make a serious effort to measure the performance of commercial banks

in terms of various financial characteristics established in financial ratios. Parameters of the study primarily included profitability and efficiency ratios popularly used in the industry. To investigate the factors of financial performance for making demarcation of commercial banks on the basis of ownership, the most widely used statistical technique, ie Multinomial Logistic Regression Method is employed on the pooled and individual years' data. To make the regression model free from multi co-linearity problems two models are selected which include the independent variable having linear relationship. Both these models are estimated by using the forward stepwise procedure for variable selection. It is found that foreign banks came up with a dominating performance in India over PSBs and Private Sector Banks (PrSBs) during the period under study. The foreign banks (FBs) are proved to be best 15performers in generating business with a given level of resources implying they are better equipped with banking skill, technological upgradation and managerial practices in comparison to its competitor groups. They are also found to be more consistent with market system as reflected in terms of net interest rate margin. The PSBs emerged as the next best performer after foreign banks and are characterized by higher return on equity in comparison to FBs and PrSBs and in terms of economizing their expenses as reflected in the expense ratio and efficiency ratio. PrSBs have however emerged with a better performance in utilization of resources as compared to PSBs.

Sethi and Bhatia (2007), introduce the readers to the banking business, with exclusive and detailed discussion on banking sector reforms. Issues, dimensions and management of NPAs in commercial banks have also been deliberated with reasonable precision.

Bhatia and Misra (2007) undertake an empirical approach to analyze the movement of NPAs in SCBs, group-wise. The study establishes the results on the basis of the impact of macroeconomic variables and bank specific variables on NPAs of a particular group of banks. First of all, a few representative variables related to banks such as credit deposit ratio and some macroeconomic variables such as GDP growth rate are chosen, and movement in NPA is assumed to be explained by the movement of these representative variables over the years. For the purpose of the study, regression analysis is undertaken to examine sensitivity of NPAs with selected variables for different categories of SCBs on dataset from 1996 to 2004. To check auto co-relation and co-linearity among independent variables the study has used VIF statistics, while to confirm the mutual independence of chosen independent variable DWT has been employed. The study has found that for PSBs R2

is 0.971 which implies the independent variables explain 97.1% of variation in NPA. In case ofPrSBs, R2 is 0.817 which implies the independent variables explain 81.7% of variation in NPA. For FBs R2 is 0.640 which implies the independent variables explain 64.0% of variation
in NPA.

Narayanaswmy, Rao and Mayya(2007) made an attempt to construct a scale for measuring the performance of Primary Agricultural Credit Societies (PACSs) and establish the robustness of scaling techniques and the scale itself. An attempt is made to evaluate the performance of co-operatives by using the tools developed for the co-operative sector which does not seems to be appropriate. Corporate is an 'outward looking' entity whereas cooperative is an inward looking entity the scaling technique developed in this paper is both simple and robust and address the problem of nonnormal data.

James(2007), deals with the problems on rising volume of overdue of the loan of the banking system both credit cooperative credit societies and of commercial banks, but also other regulating agencies like RBI,NABARD and other policy makers at national level. It also gave a solution that high overdue payment leads to the bank in inconvenient position at the time of availing refinance facilities from the external sources. The author in his research has preferred drought prone areas since the trend recovery of loan has been worsening. The demand for the recovery was higher than actual recovery.

Thappa(2007) has dealt with the Securitization process at the time of lending and borrowing money from the banks and financial institution. Globalization has resulted into rapid transformation of the financial system all over the world. As a result capital market, money market and debt market are getting widened and deepened. The study has involved the process of securitization and five stages involved in securitization of the assets. The author has also revealed the future for securitization in India. John Ferry41 December 2008 projected the most recent phase of the financial crisis in reference to Basel lI, Pillar II that covers three aspects for controlling risk viz. responsibility for the board and senior management stressed the importance of internal control over external suprvision and sets target for banks capital to match the risk profile of the banks. Author highlighted liquidity risk management public disclosure and the role of supervisors.

Garg(2006) clearly brings some current scenarios in India which strongly suggest the requirement of a tool that can convert house equity into liquid cash also brought an alternative measures for implementation and other related issues that the lenders bank will face, in the context of Indian laws, regulations and taxations. The study gives direction and attempts to identify the possible markets for this product in India. This study enables financial security as well as residential security but due to problem of regular income at time the repayment of loan amount becomes difficult has been evolved through this measures.

Vijaykriushnan(2006).Bankers and term lenders had accepted Debt Service Coverage Ratio (DCSR) as most important indicator of the repayment capacity of the borrowing entities. The author has made an 38 attempt in the article to identify the change in the instalment is based on high or low DSCR and analyzed on the basis of the available data and emphasized DSCR is only indicative methods and new ratios developed should be sensitive to the liquidity, profitability, and solvency in a holistic manner.

Patel(2006) Agriculture has been the most important sector contributing to the overall economic growth as well as providing livelihood to very significant proportion of rural population in India. The articles dealt with the disbursement and percentage growth and achievements of financing of new farmers. Comparative study is conducted on Commercial Banks, Cooperative Banks and RRB. The author highlighted in his study that fragmented work will not give complete scenario.

James.R (2006). The study dealt with the measures suggested by the lenders such as bar-coding of the mark sheet, radio frequency identification and notation in the degree certificates of the borrower and also highlighted the role of Bureau of Engineering and Professional Students (BEAPS). The service rendered by the BEAPS through these articles reveals that the NPA through educational loan can be minimised or could even be brought to nil.

Bagchi (2006) Commercial banking world over is best with the dominance of credit risk syndrome. The study reveals that dilution with reference to security implied reduction of intensity and strength of relative security. The author highlighted the situation whereby Indian Commercial Banking is sufficiently resilient and guarded deeds against 39 the major event of dilution risk loss situations. Dilution of risk is the new term in credit risk family. The

study suggested that book-debt or receivable financing should not be allowed and similarly no advance to be allowed against the book-debt.

Nanda (2006) Fraudster availed finance by creating mortgages on fictitious title deed to the property or properties and also mortgage fake title deeds to the non-existent property since no registration of mortgage is done in bank's favour in the office of Subregistrar. The author suggested in his articles a harmonious blend of equitable and registered mortgage with a very nominal additional cost with all attendant benefits of both. Bank's charge under the suggested method will be reflected in the Encumbrance Certificate serving as due notice to the public at large and other banks/ financial institution which will help in preventing fraud and supplementary recitals to be recorded at the branch of the bank.

Khasnobis(2006) A large part of the banking sector growth, has been on the back of financing consumptions, as reflected in the growth of retail banking. Growth driver would involve financing the emerging Small and Medium Enterprise sector of the economy. The evaluation of the NPA has been blended by the author by the asset companies which specialise in certain segment of the financial sector. The author highlighted pre-liberalization and post liberalization effect through these articles.

Bagchi (2006) Capital Stock in any business organisation is the 'buffer' against the vicissitudes of risks facing in the market driven 40 environment Basel Committee announced the guidelines on Capital Adequacy. The author stressed upon the solvency status of the bank through the concept of capital adequacy. The study also observed the blend between Innovative Perpetual Debt Instrument and Hybrid Debt Capital Instrument .The author also highlighted the new area through which the capital adequacy can be enhanced in banking industry.

Gopalakrishnan (2006) examines the impact of NPAs on various micro and macro economic
variables, with the help of simple regression analysis. It is observed that there is significant relation between NPAs and strategic variables stated above with very high value of R2.
Simple regression models generated are highly significant with F test result with significance of less than .05 and moderate to very high R2 value ranging from 0.525 in case of net profit

to 0.920 in case of interest rate on advances. A multiple regression model has also been employed to explain impact of NPA along with a few other strategic banking variables on net profit of PSBs. The author has also developed a statistical model for forecasting future value of gross advances, standard advances and NPAs with the help of regression analysis. Time series data for nine years have been taken and regressed with a few strategic variables under two scenarios to enable prediction of the above parameters for 11 years as a matter of reference for the bankers in formulating their strategies.

Reddy, Babu, Mallikarjuna and Viswanath (2006) make a serious attempt to examine trend of
NPAs in PSBs in India with the help of variables like GNPA, NNPA, GNPA to GAs, GNPA to total assets, NNPA to NAs, NNPA to total assets on time series data from 1994 to 2004. With the help of statistical table, they observe that in ratio terms, NPAs have gone down gradually. Though NNPA in actual term has also declined after a moderate rise, GNPA has shown upward trends throughout. The researchers examine the level and trend of NPA in individual PSB, with the help of Box Plot. GNPA ratios of individual banks have been plotted on the Box Plot and it is observed from the chart that the boxes are skewed upward as many banks have higher NPA ratio than median. Box Plot also helps to isolate the odd-menout
(outliers) with staggering levels of NPA.

Bodla and Verma (2006) in their empirical research work, 'Determinants of Profitability of Banks in India : A Multivariate Analysis', examine the impact of banking variables like 14spread, net interest income, credit deposit ratio, NPAs as percentage of net advances, provision and contingencies, operating expenses, business per employee on profitability in PSBs in India. They use a time series data covering 1991-92 to 2003-04 and employ Multiple Regression Technique. The study has brought out that the explanatory power of some variables like, spread, net interest income, provision and contingencies and operating expenses are significantly high while others like business per employee, credit deposit ratio, NPAs as percentage of net advances are found with low explanatory power. Durbin Watson Test (DWT) has been employed to examine the problem of auto-correlation in the time series data employed herein. Moreover, to bring out the explanatory powers of each of the independent variables under study, the square of partial correlation coefficient has been worked out. The study concludes that variables such as provision and contingencies, non

interest income, spread and operating expenses have significant relationship with net profit and therefore are major areas of concern in PSBs in India

Bose (2005). The growing NPA and its implications on the banking system need no emphasis. While there have been several schemes in the past to facilitate the recovery from NPAs, the success of such efforts in terms of NPA reduction has been far from satisfactory. SARFAESI Act greatly helps bank in their effort to reduce recovers money from NPAs. Attempts to provide a glimpse of the Act against this backdrop. The author has cited certain limitation on the Act and also put certain light of the Supreme Court landmark Judgement in ordinance 2004.

Pasadilla (2005) Philippines has the highest number of Non-Performing Loans in Asia. As a result, the government provided a legal framework through which banks can transfer NPA to separate entity called Special Purpose Vehicles (SPV), which are which private owned Asset 37 Management Companies are. The research paper discussed the problems and rehabilitation procedures legal bankruptcy reforms and effectiveness. The author also suggested that banks are trapped between debtor and Central Bank of the Philippines.

Roland(2005). The author focused on the changing intensity of three policies that are commonly associated with financial repression, namely interest rate controls, statutory pre-emotions' and directed credit as well as the effects the policies had. The study attempted to evaluate the reforms that have occurred in the banking sector by focusing on the changes in three policies that are commonly associated with financial repression, namely interest rate controls, statutory preemption and directed credit. The indices were used to evaluate the changing intensity of repressive policies.

Sharma (2005) in her research paper makes an attempt to study the problem of NPAs in PSBs
and also its impact on the performance of these banks. Impact of NPAs on the profitability of the banks is analyzed by applying multiple regression. Impact of NPA on productivity, represented by business per employee (BPE) and operating profit per employee (OPE) and few other strategic banking variables like capital adequacy, credit deployment and deposit mobilization along with some macroeconomic variable have also been examined with the

help of simple regression model. The issue of auto correlation and multi co-linearity has been diagnosed with the help of Durbin Watson Statistics (DWS) and Variance Inflation Factor (VIF) respectively. She observes that NPA not only affect performance of the banks, but also cause tremendous damage to the entire economy by dampening the very foundation of the credit system. The author suggests different preventive and curative measures to control NPAs in PSBs and urges that efficient legal framework, improvement in credit appraisal and monitoring skills of banks backed by strong political will may enable the Indian banks to tackle the burning issue.

Choudhari.S andTripathy.A (2004) in their study made an attempt to use Data Envelopment Analysis (DEA) to evaluate the relative performance of public sector banks in India. The authors made an attempt to evaluate the banks on five indicators namely, Profitability, Financial Management, Growth productivity, and Liquidity. The analysis showed that most of the banks form efficient frontier in profitability and financial indicators compared to productivity, growth and liquidity indicators. The authors emphasized on lacuna that banks are not giving importance to other measures such as productivity, growth and liquidity as compared to profitability and financial management.

Chaitanya (2004) in his paper on 'Causes of NPA in Public Sector Banks' examines with the help of three year moving average the trends in NPA based on four ratios (GNPA to Gross advance, GNPA to Total Assets, Net NPA to Net Advance and Net NPA to Total Assets) and also attempts to forecast future value of NPA for next 3 years. Secondary data for the time period 1992-93 to 2001-02 has been captured. The study examines various macro and micro perspective of NPA in Indian banking system and recommends two prone strategies to deal with this major problem as under: (i) reduction of existing NPAs and (ii) restriction of further accumulation of NPAs.

Machiraju (2003) andShekhar (2005) develop a conceptual framework within which the banks and other financial institutions operate. Attempt has been made to explain the nature and role of financial system including commercial banks, management of funds, advances and investment in addition to management of risks in banking with focus on credit risk, asset quality and non performing assets. Donald and Koch (2006), focus on key issues confronting decision making with particular reference to management of credit risk in the bank.

Bhide, Prasad and Ghosh (2002) observe that the most critical issue in Indian banking is that of its bad loans which has been understated over years due to lax regulatory provisions towards asset classification and provisioning in banking in India.

Vasishtha and Rajaraman (2002) examine the relationship between NPA and operating efficiency. With the help of panel regression on a time series data covering a period of 5 years i.e., 1995-96 to 1999-2000 of 27 PSBs. Two runs are attempted, one with capital adequacy as the bank specific indicator of solvency and the second as operating profit as a per cent of working funds as the indicator of operating efficiency. The estimated coefficient of capital adequacy in the first run carries the expected sign but is found not statistically significant. Thus, the fixed group effect in that run basically separate the banks into those carrying statistically significant higher or lower NPAs than the mean for the pool. In the second run, the coefficient for operating profits carries the expected negative sign and is observed statistically significant. Two banks with higher than mean NPA carrying insignificant intercepts after controlling for operating profit, clearly indicate that the high NPAs in this case correlate low operating efficiency. But there are four banks with high positive and significant intercepts, even after controlling for operating efficiency. In all cases, the intercept is lower with operating efficiency thus showing that low operating efficiency explains some, if not all of the NPA stock.

Ahluwalia (2001) observes that the experience of 1st generation reform is quite encouraging as the performance of the banks has improved and level of NPA register significant decline. However, he stresses that there is lot of scope of improvement as the asset quality international bench mark still could not be reached.

Chansarkar (2001), Dayal (2001) and Govil (2001) present a brief progress and prospect status of Indian banking in various areas including asset quality, profitability and transparency and recommend in favour of implementation of second phase of reform packages.

Tarapore (1998) presents a brief outline of backdrop of first phase of reform, progress made in the banking sector during first phase of reform and advocates in favour of second phase of banking sector reform with the following agenda: (i) re-organization of structure of banking

industry with the introduction of liberalized policy of opening of bank in private sector, (ii) stricter prudential norms for capital adequacy as well as assets quality to take the banking industry to international standard, (iii) improvement in the operating profit as an indicator of success in the industry, (iv) further liberalisation on directed credit, (v) autonomy in banks, (vi) merger or re-oganisation of weak banks, (vii) effective regulatory and supervisory framework to handle increasing burden of NPAs.

Shajahan (1998), Naik (2006) and Poongavanam (2011) define NPA, discuss NPA norms across the world, explain Health Code System prevalent in India before introduction of Prudential Norms and basic Prudential Norms on income recognition, asset classification and provisioning along-with factors responsible for growing NPA and effective mechanism towards management of distress asset in commercial banks in India.

Rangarajan (1997) argues that the broad objective of reform has been to create a viable and efficient banking system. He further states that the four building blocks on which banking sector reform stands include (i) modifying the policy framework, (ii) improving the financial soundness and credibility of banks, (iii) creating a competitive environment and (iv) strengthening of the institutional framework.

Berger and Young (1997) develop three econometric models to examine relationship among loan quality, cost efficiency and bank capital. The paper sets four hypotheses, based on four situations, namely 'bad luck', 'bad management', 'skimping' behavior and 'moral hazard' problems. The paper suggests that relationship between loan quality and cost efficiency move in both direction. On the one hand, the data supports 'bad luck' hypothesis implying increase in NPL is followed by decrease in measured cost efficiency. On the other hand, from the industry perspective the data supports 'bad management' hypothesis over the 'skimping' hypothesis implying decrease in measured cost efficiency are followed by increase in NPL. Finally the paper supports decrease in bank capital ratios generally precede increase in NPL for banks with low capital ratio implying low capitalized banks may respond to moral hazard problem by taking increased portfolio risk. Hence, cost efficiency may be an important indicator of future problem loans and problem banks.

Mohan and Kapoor (1996) also contribute immensely through vivid description of frame work of the prudential norms, followed by norms of income recognition, asset classification

and provisioning. The book also elaborately explains the procedures to be followed by the banks in reporting NPA related figures.

Bernstein (1996) examines impact of NPAs on aggregate costs and on scale economy represented by different asset size in banking sector. For the purpose of the study of impact of NPA on bank cost, the researcher uses a translog cost function where dependent variable is the sum of interest and non interest cost. The cost model examine NPA ratio, which has a direct impact on bank cost. The study observes that NPAs have both a direct and indirect effect on bank cost. Banks with high NPA, other factors remaining constant, will have higher cost but the direct impact of NPA on bank cost appears to be small. Similarly scale economy estimates for banks of different asset size, has been generated by translog cost function with NPA ratio variable. The cost curve, estimated for banks with low NPA ratios, suggests that scale economies may exist even for the large banks.

Joshi and Little (1996), describe the impact of financial sector reforms during 1991-2001. With the help of statistical figure they make an attempt to explain that reforms in Indian banking sector was not only the emerging solution to the crisis but also the only way for them to come out of the shattered bottom lines and poor image.

Toor (1994) makes an attempt to capture various norms and guidelines issued by the RBI on NPA and link it with the lending practices of banks. He stresses on the typical nature of banking business, particularly in the changing scenario and rightly argued in favour of servicing liabilities by creating assets in a business.

Suneja (1992) outlines in brief the principal issues and operational aspects of credit management. The author also prescribes norms and guidelines of sound lending and various aspects in credit operations including appraisal of loan proposal, the sanctioning process, disbursement and post disbursement follow up. Health Code (HC) System introduced by RBI as a reporting and surveillance mechanism on the quality of loan portfolio for the banks in India has been captured in a comprehensive manner.

Meeker and Gray (1987) in their research paper observe that information on bank asset quality expressed in the form of NPA was made public in 1983 in US banking perspective.

Since then any stake holder could review the asset quality of a bank before taking a decision. Basic objective of the study is to evaluate information on NPA as an indicator of asset quality. A regression analysis comparing the NPA statistics with examiner classifications of assets has been performed. The study suggests that the NPA information can be a useful aid in analyzing the asset quality of banks, particularly when the information is timely.

➢ RESEARCH GAP

Most of the studies conducted so far are based on only one indicator or either on profitability, productivity, or any single variables like ROA, ROI….etc.

Present study is an attempt to enrich the literature by assessing the impact of NPA on profitability as well as financial soundness of scheduled commercial banks

➢ OBJECTIVES OF STUDY

- To analyse the trends of NPA in various scheduled commercial banks.
- To examine the major determinants of NPA in scheduled commercial bank of india.
- To ascertain the impact of NPA on profitability of various (public,private and foreign) banks.
- To ascertain the impact of NPA on financial soundness of various(public, private and foreign) banks.
- To draw conclusion and give suggestions based on overall study.

➢ HYPOTHESIS OF THE STUDY

1. There is no significant mean difference in NPA of various (public, private, foreign) banks.
2. There is no significant difference in impact of NPA of public and private sector bank on profitability (ROA).
3. There is no significant difference in impact of NPA of public and private sector bank on their financial soundness.

➢ RESEARCH METHODOLOGY

• Data and Data Sources

Present study is based on secondary data to be collected mainly from the authorized sources like RESERVE BANK OF INDIA.

• Time period

Present study covers the time spaning from 2004-2018-19.

• Research methods

Present study adopts various statistical and econometric tools which are as follows:

1. Statistical tools- mean, Standard deviation, correlation, F-test.
2. Econometric tools- linear regression model

➢ LIMITATIONS OF THE STUDY

- Time constraints – we cannot perform primary study.
- Further selective study of individual banks under public, private, foreign banks also cannot performed.

CHAPTER-3

TRENDS AND DETERMINANTS OF NON-PERFORMING ASSETS IN INDIA

INTRODUCTION

The banking sector is an important financial service sector that supports development plans by channeling funds for productive purposes, brokering the movement of funds from surplus to deficit units, and supporting government financial and economic policies. Banks serve social objectives by lending to the priority sector, mass branch networks, and job creation. For the sustainability and growth of banks, preserving asset quality and profitability is important.In the course of achieving such targets, banking is a big issue.

The incidence of non-performing assets in the industry is (NPA). "NPA was described by the Reserve Bank of India as "An asset, including a leased asset, becomes a non-performing asset when the bank ceases to generate income. The key causes of NPAs are willful default, abuse of borrowed funds, lack of sufficient pre-inquiry prior to loan issuance. As of 30 June 2018, Indian Banks' Gross NPA was 10.03 lakh crores.For a thriving economy, a strong banking sector is critical. The face of the Indian banking sector has changed significantly with the implementation of financial sector reforms in 1991. In the recovery phase of the country's economy as a whole, the banking sector also has a very important role. Step by step, the banking industry has changed from a synchronized setting to a market-based, decontrolled economy.There have been considerable changes in the transitional position of banks in India since the beginning of liberalization and globalization in business growth. Other industries will be adversely affected by the collapse of the banking sector. Today, banks are not only judged on the basis of the number of branches and the quantity of deposits, but also on the basis of standard assets. One of the major challenges for banks in India is that non-performing assets have a negative impact on profitability, liquidity and solvency.This chapter includes:-

I. Classification of loan assets
II. Trends of NPA in India
III. Sources of NPA in India

I. CLASSIFICATION OF LOAN ASSET OF VARIOUS SECTORS

Non- performing assets are further classified into three categories:

1. Sub-standard Assets
2. Doubtful Assets
3. Loss Asset

Sub-standard Assets

A sub-standard asset was one, which was classified as NPA for a period not exceeding two years. With effect from 31 March 2001, a sub-standard asset is one, which has remained NPA for a period less than or equal to 18 months. In such cases, the current net worth of the borrower/ guarantor or the current market value of the security charged is not enough to ensure recovery of the dues to the banks in full. In other words, such an asset will have well defined credit weaknesses that jeopardise the liquidation of the debt and are characterised by the distinct possibility that the banks will sustain some loss, if deficiencies are not corrected**.**

Doubtful Assets

A doubtful asset was one, which remained NPA for a period exceeding two years. With effect from 31 March 2001, an asset is to be classified as doubtful, if it has remained NPA for a period exceeding 18 months. A loan classified as doubtful has all the weaknesses inherent in assets that were classified as sub-standard, with the added characteristic that the weaknesses make collection or liquidation in full, – on the basis of currently known facts, conditions and values – highly questionable and improbable.

Loss Assets

A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted although there may be some salvage or recovery value.

Table -3.1 **Classification of loan asset of public sector** (in percentage)

year	Standard advances	Sub-standard advances	Doubtful advances	Loss advances	Gross NPA
2019	88.4	2.2	8.2	1.2	11.6
2018	85.4	3.5	10.2	0.9	14.6
2017	88.3	3	8.4	0.4	11.7
2016	90.7	3.4	5.5	0.3	9.3
2015	95	1.9	2.9	0.2	5
2014	95.6	1.8	2.3	0.2	4.4
2013	96.4	1.8	1.7	0.2	3.6
2012	97	1.6	1.2	0.2	3
2011	97.8	1.1	1	0.2	2.2
2010	97.8	1.1	0.9	0.2	2.2
2009	98	0.9	0.9	0.2	2
2008	97.8	1	1.1	0.2	2.2
2007	97.4	1	1.4	0.3	2.7
2006	96.4	1	2.2	0.5	3.7
2005	94.6	1.2	3.5	0.7	5.4

Table-3.2 **Classification of loan asset of private sector** (in percentage)

Year	Standard advances	Sub-standard advances	Doubtful advances	Loss advances	Gross NPA
2019	94.7	1.3	3.7	0.3	5.3
2018	95.4	1.2	3.2	0.2	4.6
2017	95.9	1.4	2.3	0.4	4.1
2016	97.2	0.9	1.6	0.3	2.8
2015	97.9	0.7	1.1	0.3	2.1
2014	98.2	0.6	0.8	0.3	1.8
2013	98.2	0.6	1	0.3	1.8
2012	98.1	0.5	1.1	0.3	1.9
2011	97.8	0.6	1.3	0.4	2.2
2010	97.3	1.4	1	0.3	2.7
2009	97.1	1.8	0.9	0.2	2.9
2008	97.5	1.4	0.9	0.2	2.5
2007	97.8	1	0.9	0.2	2.2
2006	97.6	0.8	1.4	0.3	2.5
2005	96.1	1	2.5	0.4	3.9

Source-RBI

Table-3.3 **Classification of loan asset of foreign sector** (in percentage)

Year	Standard advances	Sub-standard advances	Doubtful advances	Loss advances	Gross NPA
2019	97	0.8	2	0.3	3
2018	96.2	1.1	2.3	0.5	3.8
2017	96	1.2	2.4	0.4	4
2016	95.8	1.7	1.6	0.9	4.2
2015	96.8	0.7	1.6	0.9	3.2
2014	96.1	1.4	1.4	1	3.9
2013	97	1.1	1	0.9	3
2012	97.3	0.9	1	0.8	2.7
2011	97.5	0.9	1.1	0.6	2.5
2010	95.7	2.9	0.9	0.5	4.3
2009	95.7	3.5	0.6	0.3	4.3
2008	98.1	1.2	0.5	0.2	1.9
2007	98.1	1.1	0.5	0.4	1.9
2006	97.9	1	0.7	0.4	2.1
2005	97	0.9	1.3	0.7	3

Source-RBI

II. TRENDS IN INDIA

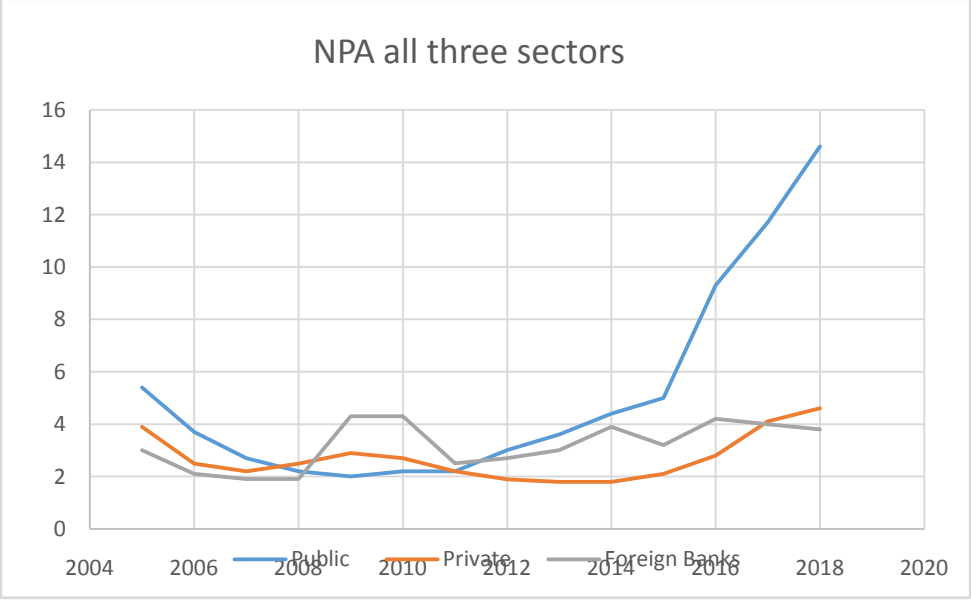
Table gives the aggregate figures of gross NPAs to gross advances of public sector, private sector, foreign and all scheduled commercial banks.

Table - 3.4 **(Gross NPAs to gross advances of all three sectors)** (in percentage)

year	Public sector	Private sector	Foreign banks	All SCBs
2005	5.4	3.9	3	4.9
2006	3.7	2.5	2.1	3.3
2007	2.7	2.2	1.9	2.5
2008	2.2	2.5	1.9	2.3
2009	2	2.9	4.3	2.3
2010	2.2	2.7	4.3	2.4
2011	2.2	2.2	2.5	2.3
2012	3	1.9	2.7	2.8
2013	3.6	1.8	3	3.2
2014	4.4	1.8	3.9	3.8
2015	5	2.1	3.2	4.3
2016	9.3	2.8	4.2	7.5
2017	11.7	4.1	4	9.3
2018	14.6	4.6	3.8	11.2
Average	5.14	2.71	3.2	4.44

Source – RBI

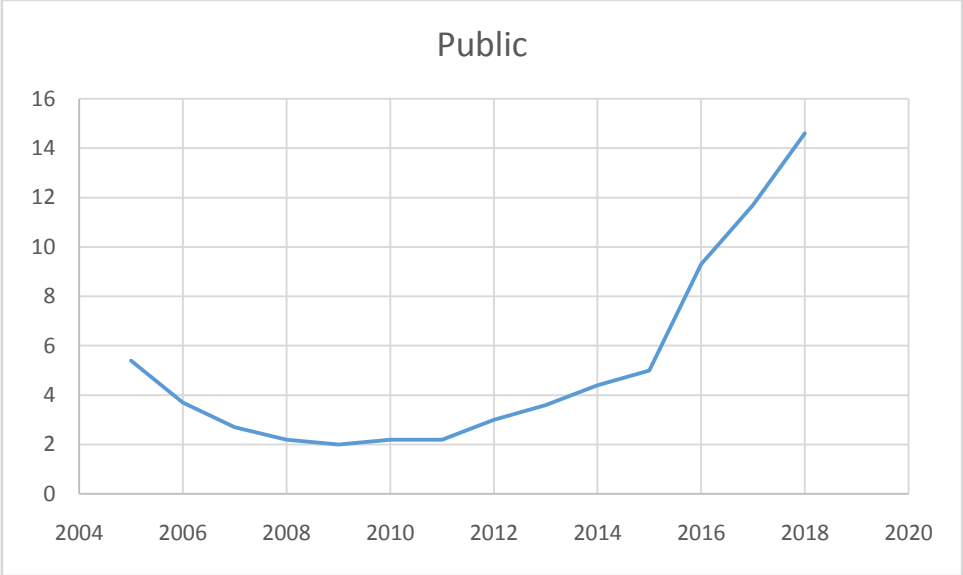
Fig.3.1**NPA of all three sectors**



Source-own calculations

The average NPAs of public sector banks are the highest at 5.14%, followed by those of foreign banks (3.20%). Private banks have the lowest average NPAs at 1.28. The graph shows that the level of NPAs has more or less remained constant for a long period of time. However, during the past few years, NPA in the banks, has started to see an upward trend. While, the increase has been slight in the case of private and foreign, the level of NPA is rising at a rapid rate in public sector banks.

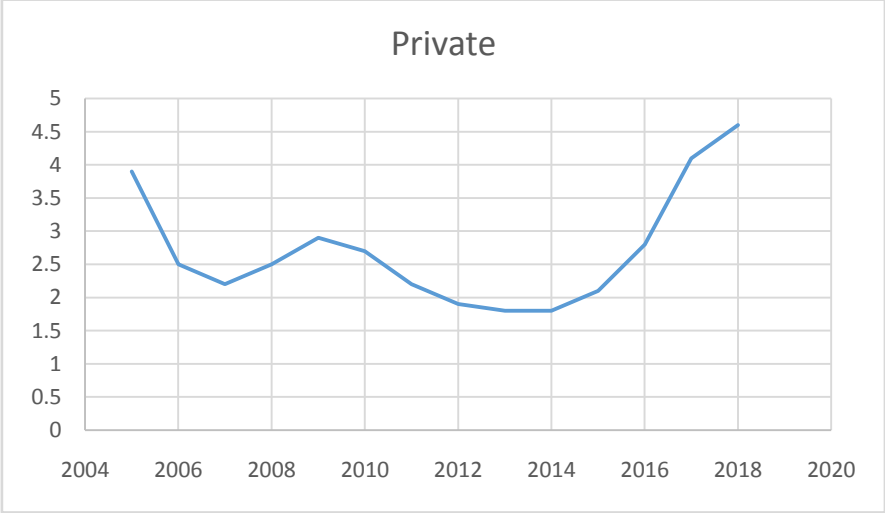
Fig.-3.2**NPA of public sector**



Source-own calculation

The above graph shows that the NPAs of public sector banks are showing an increasing trend for the study period. The growth rate is 0.66% p.a. Until 2010, the graph follows a downward trend and the banks effectively managed to bring down their NPA from 5.4% (in 2005) to 2.2% (in 2010). The average is maintained at 2.2% in the following year. However, 2011 onwards, the NPA starts to rise and reaches to 5% in 2015. A huge jump is noticed in 2016 when the NPA rises to 9.3% and reaches to 14.6% in 2018.

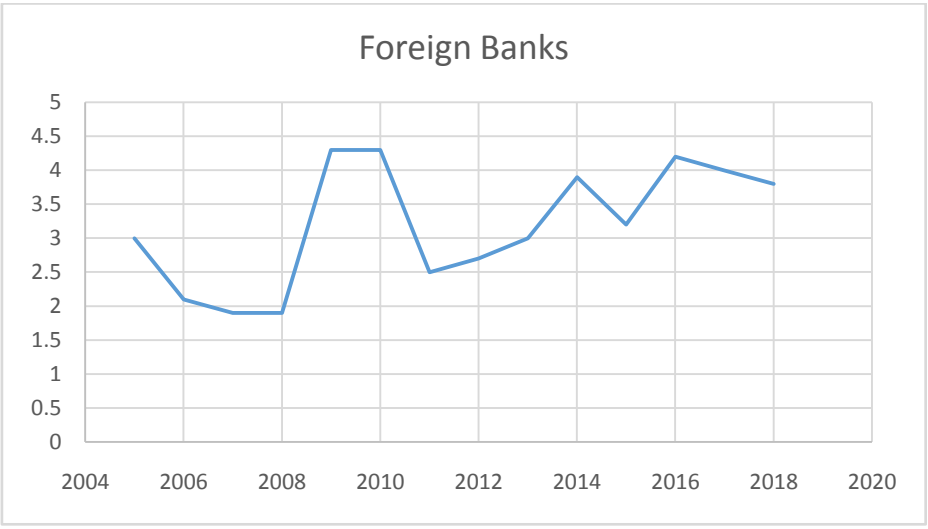
Fig.3.3 **NPA of private sector**



Source- own calculations

From the above graph, it is evident that the NPAs of private sector banks are growing at a much lower rate of 0.047% p.a. as compared to 0.66% p.a. of public sector banks. The percentage fluctuates between 4% and 2% for a long period of time and the level of NPA is seen to fall even below 2% during the years 2012, 2013 and 2014. However, the graph is observed to have a positive slope after 2014 and almost doubles itself in the next 4 years. Thus, the rising trend in NPAs for private banks is observed from a much later year (2014) as compared to public banks (2011). The rise is less sharp and the highest value achieved (in 2018) is much lower (4.6%) than that of public banks (14.6%).

Fig. 3.4 **NPA of foreign banks**

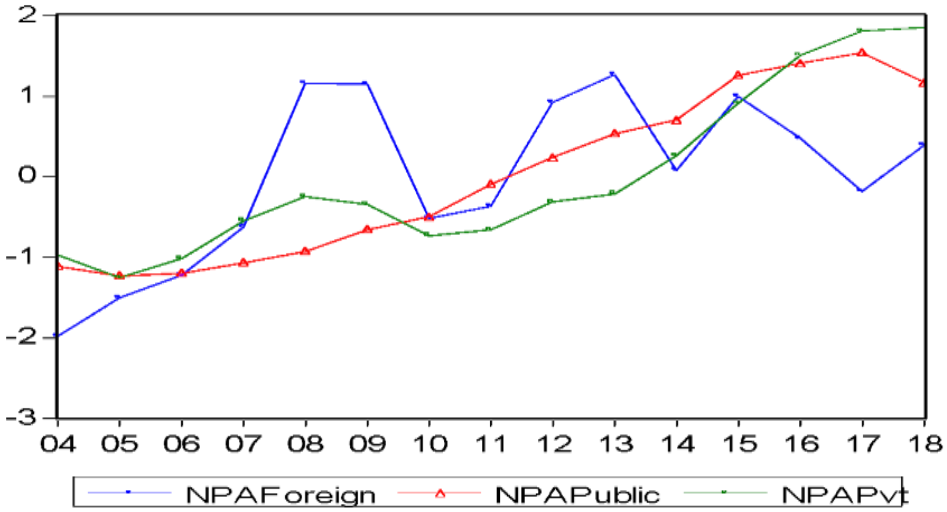


Source-own calculation

The graph of the foreign banks' NPA ratio also seems to show a rising trend over the years for the study period, with the growth rate being 0.12% p.a. While this is higher than that of private banks (0.047% p.a.), it is much lower than that of public sector banks (0.66% p.a.). Unlike thetrend of public sector and private sector banks, NPA follows a downward trend in the previous two years. The average NPA of 2018 for foreign banks is much lower than that of other two groups of banks.

a) Trend

Fig. -3.5 NPA of all three sectors



Source-own calculations

b) HYPOTHESIS TESTING

H_o: There is no significant difference in variance of NPA of all the three banks

H_A: There is a significant difference in variance of NPA of all the three banks

Table-3.5 **Hypothesis testing**

Test for Equality of Variances Between Series			
Sample: 2004 2018			
Included observations: 15			
Method	df	Value	Probability
Bartlett	2	10.2984	0.0058
Levene	(2, 42)	8.67797	0.0007
Category Statistics			

H_o: There is no significant difference in mean of NPA of all the three banks

H_A: There is a significant difference in mean of NPA of all the three banks

Table-3.6 **Hypothesis testing**

Test for Equality of Means Between Series			
Included observations: 15			
Method	df	Value	Probability
Anova F-statistic	(2, 42)	51.8176	0

Source-own calculations

According to the Bartlett, levene and Brown Forsythe method null hypothesis is rejected as the P value is less than .05. Thus to conclude we can say that there is significant difference in the variance of NPA in all the three banks.

Similarly, above result suggest that null hypothesis is rejected as P value is less than .05 for Anova test for equality of mean, therefore our result conclude that there is a significant difference in the mean value of NPA of all the three banks.

c) DISCRIPTIVE STATISTICS

Table no.-3.7 Descriptive Statistics

	NPA foreign	NPA public	NPA private
Mean	7.43546	11.1179	9.30019
Median	7.47421	10.9919	8.98645
Maximum	8.05833	13.0269	11.1171
Minimum	6.4599	9.58645	8.0618
Std. Dev.	0.50921	1.28512	1.01659
CV	6.8483	11.559	10.9308

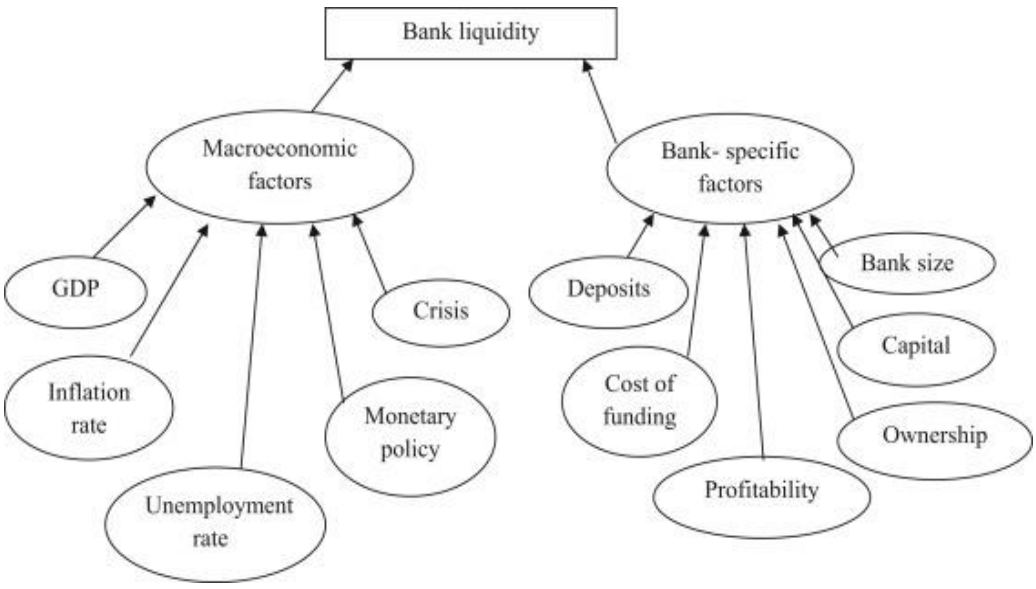
Source- own calculation

III. DETERMINANTS/SOURCES OF NPA IN INDIA

a. Determinants of Non-Performing Asset

1. Macroeconomic Determinants of NPA
2. Microeconomic Sources/Determinants of NPA

I. Macro- Economic Determinants



- Bank specific factors

a. Bank size

The variables that have impacted liquid assetsBank holdings and found that liquidity levels were greatly impacted by the scale of banks or we can say majorly affected by the size of bank.

b. Profitability

Many studies says that there is positive relationship between profitability and liquidity of bank whereas some studies states that there is negative relationship between profitability and liquidity.

c. Deposits

There is an insignificant effect of deposits on bank liquidity; as the deposits increases the liquidity of banks also increases.

d. Capital

In many studies it has been found that high capital availability increases the risk-absorbing potential of banks**.** In many studies it has been found that there is a relationship between bank capital and liquidity creation.

e. Ownership

It has been found that the ownership also plays a vital role. The banks under ownership of for example A country holds more liquid stock than country B.

f. Cost of funding

Few studies have observed the effect on bank liquidity of funding costs and funding sources. This means that if liability costs rise, then if liability costs rise, banks prefer to rely more on liquid assets that serve as a source of liquidity, instead of relying on the inter-bank market**.**

- Macroeconomic factors

a. Monetary policy

Many studies states that there is a negative impact of monetary policy upon liquidity of banks.

b. GDP

GDP is known as the business cycle's proxy. Some studies says GDP has a negative impact on liquidity whereas some says it has positive impact on liquidity.

c. Crisis

Financial crisis seriously affect the liquidity of banks.Poor bank liquidity may lead the financial crisis, the reverse relationship can also hold true. This is how poor bank liquidity may be influenced by a financial crisis: First, the uncertainty of critical macroeconomic variables may contribute to banks' unfavourable business climate.The business environment of borrowers could worsen and impact their ability to make loan repayments, leading ultimately to a decrease in bank liquidity.

d. Unemployment

Unemployment has a negative impact on liquidity. More unemployment in the economy leads to reduction in capital and affects the liquidity of banks.

e. Inflation

Many studies states that the changes in inflation rates affects negatively the liquidity of banks or economy.

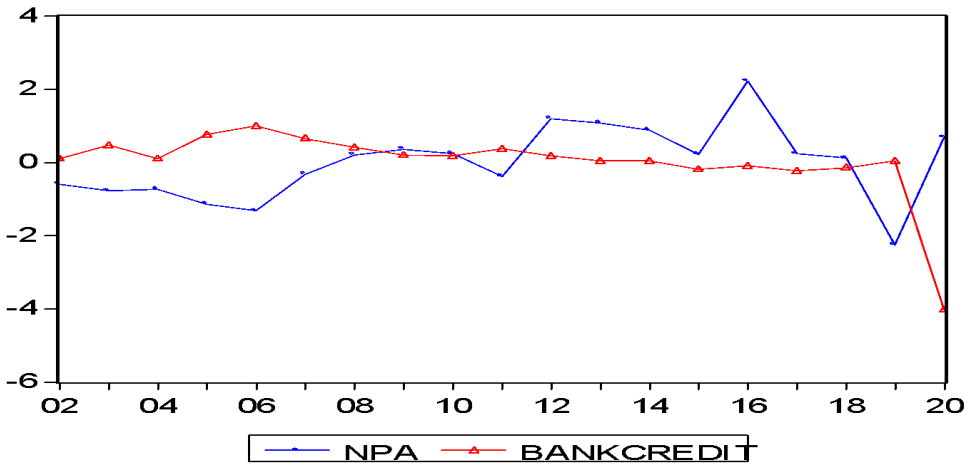
1. ANALYSIS OF MACRO-ECONOMIC FACTORS

Asset quality is related to macro-financial factors, such as credit quality. As well as inflation, asset prices and worldwide growth, GDP growth and interest rate cycles.

- **NPAs and Credit Cycle**

Loan cycles are described in the literature as a significant determinant of banks "Value of Properties." As "dynamic interactions between the financial and real sectors of the economy, cyclicality/pro-cyclicality has been defined." During economic booms, financial institutions tend to over-stretch their loan portfolios and tend to minimise them during economic downturns.It has been argued that credit growth is correlated with an expansion. The decline in the quality of assets because they prefer to lower their credit standards as banks over extend their lending. At mature stages of the credit cycle, this activity translates into greater slippages in asset quality.

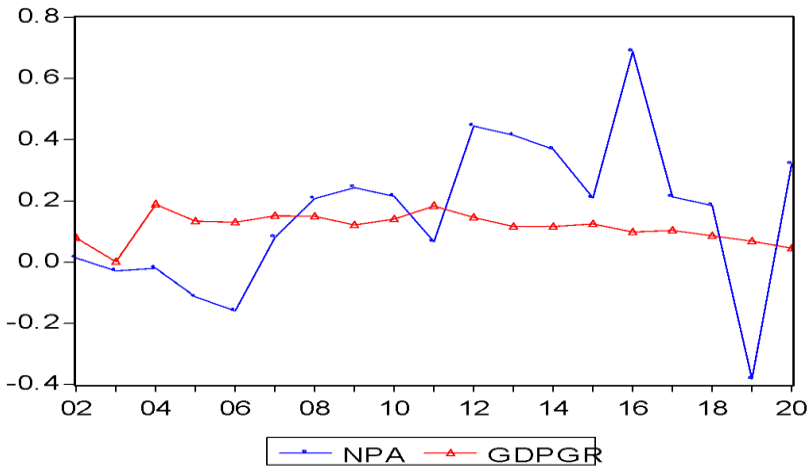
Fig-3.6 **NPA and bank-credit cycle**



- **Economic growth and NPAs Cycle**

The general economic downturn is also said to have an effect on the output of banks and financial institutions, as the slump in major economic activities results in poor recoveries and the consequent deterioration of the quality of assets.

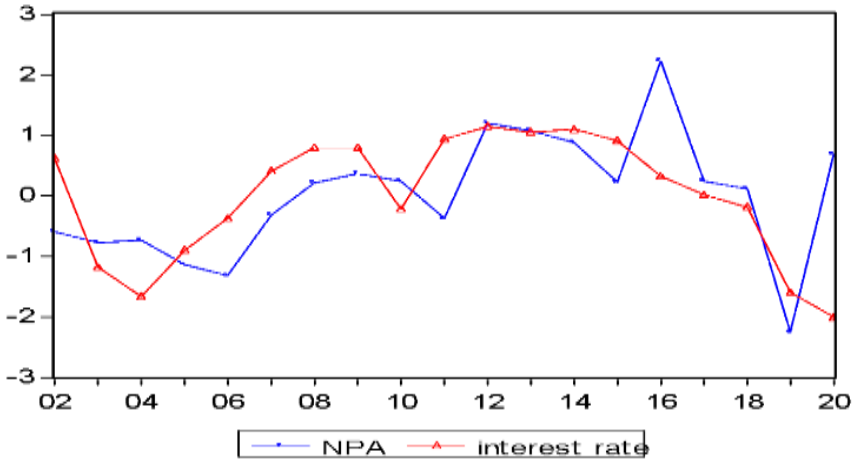
Fig-3.7 **Economic growth and NPA cycle**



- **NPAs and Interest Rate Cycle**

Changes in bank lending rates can also lead to changes in the NPA level. The hardening of interest rates makes it difficult for borrowers to repay loans, particularly those who have previously used loans at floating rates. Growth in NPAs tends to follow a cyclical lending rate trend as well.Increases in the money market rate have been found to worsen the quality of the as higher debt servicing costs, loans make it more difficult for borrowers to honour their debt. In addition, higher interest rates can lead to an adverse selection of borrowers, with only the more risky ones left on the market.

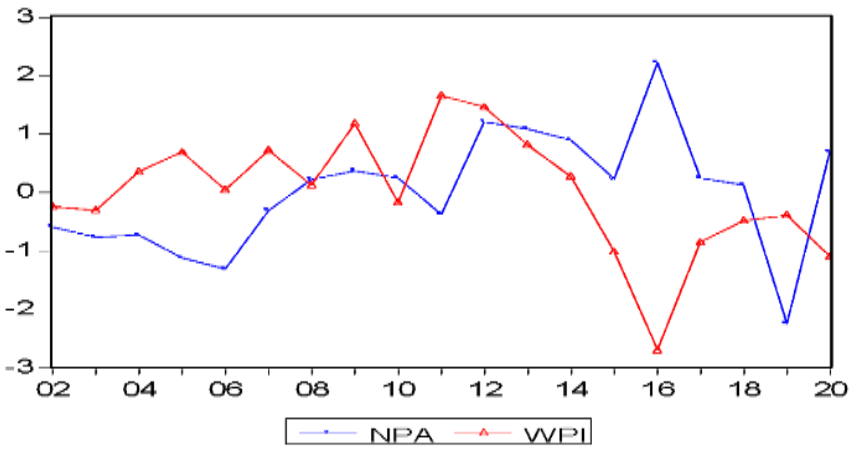
Fig-3.8**NPA and interest rate cycle**



- **NPAs and Inflation**

Rising costs erode disposable income and affect the repayment of disposable income. In addition, high inflation flows through to nominal interest rates, making debt servicing more burdensome. On the other hand, high inflation, as it erodes the real value of debt, will benefit borrowers whose debt is denominated in nominal terms. There is also evidence in the literature that, after rising retail price inflation and nominal interest rates, the write-off ratio of banks is growing.Inflationary pressures faded due to supply shocks in the form of a poor monsoon, accompanied by a hardening of global commodity prices, as India recovered quickly from the crisis. As calculated by the wholesale price index, inflation (WPI).

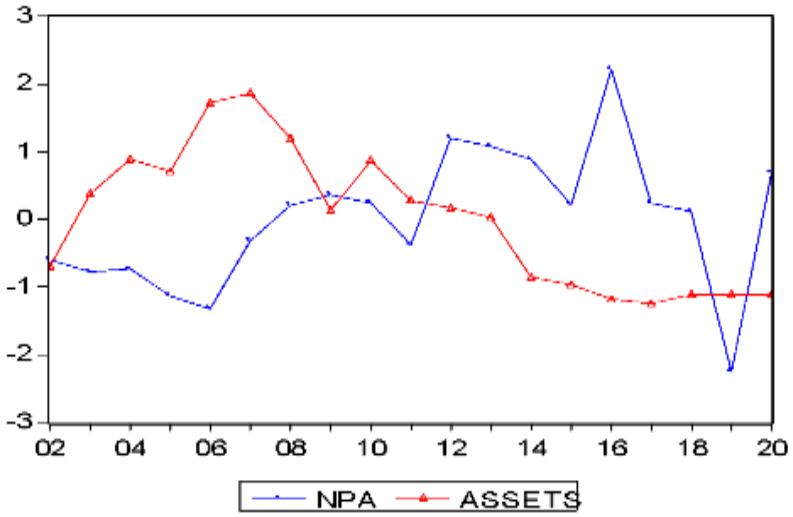
Fig-3.9 **NPA and inflation rate**



- **Asset Prices and NPAs**

An rise in asset prices will raise borrowers' net worth through the impact of wealth and help promote debt servicing.By facilitating access to credit and/or helping to service existing debts, high asset prices can cushion borrowers from unexpected shocks. Therefore, higher asset valuations should be correlated with lower levels of NPA ratios.A booming stock market represents a buoyant outlook on the viability of firms; in addition, a rise in financial capital is expected to minimise the risk of defaulting on loans for households as it provides them with additional means to service their debt. There is an inverse co-movement between asset prices and NPAs.

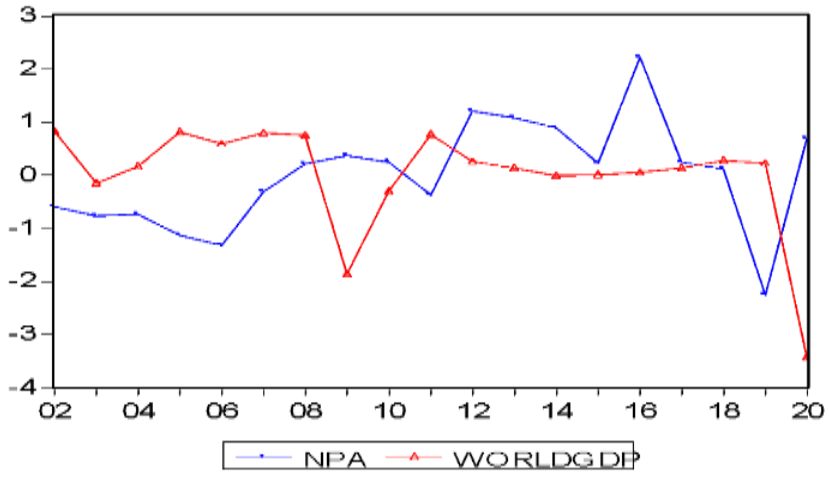
Fig-3.10 **NPA and asset prices**



- **Global Macroeconomic Situation and Asset Quality**

In determining domestic macroeconomic conditions, the external environment also plays a part. The overall profitability and asset quality of banks can be well predicted by a buoyant external environment, because positive externalities flowing from a positive external environment can feed into the output of the domestic economy through channels of trade, trust and the financial sector. The relationship between world GDP growth and NPAs is inverse.

Fig-3.11**NPA and world GDPGR**



➢ Correlation

In order to ascertain the association between the net NPA and various macro variables correlation is estimated. It is estimated for the two samples period- First is pre financial crisis i.e. from 2001-02 to-2008-09 and another sample period is from 2010 to 2020. Our result suggest that bank credit and interest rate (treasury bill) depicts high degree of correlation with NPA during pre crisis period however their impact dampens after post crisis period. Another notable feature is that WPI which affects NPA positively during the pre crisis period, turned out to be negatively during the post crisis period (however not significant).

Table no.3.8**Correlation result**

2001-2020

	NPA	GDPGR	BANKCREDIT	WORLDGDP	WPI	TB	ASSETS
NPA	1.000000	0.059708	-0.300041	-0.291574	-0.243436	0.516818	-0.306463
GDPGR	0.059708	1.000000	0.402984	0.400108	0.508552	0.397291	0.505516
BANKCREDIT	-0.300041	0.402984	1.000000	0.824866	0.381403	0.393419	0.506602
WORLDGDP	-0.291574	0.400108	0.824866	1.000000	0.212505	0.346912	0.328036
WPI	-0.243436	0.508552	0.381403	0.212505	1.000000	0.308564	0.546392
TB	0.516818	0.397291	0.393419	0.346912	0.308564	1.000000	0.025573
ASSETS	-0.306463	0.505516	0.506602	0.328036	0.546392	0.025573	1.000000

2001-2010

	NPA	GDPGR	BANKCREDIT	WORLDGDP	WPI	TB	ASSETS
NPA	1.000000	0.174005	-0.597154	-0.533947	0.221117	0.620561	-0.127356
GDPGR	0.174005	1.000000	-0.019880	0.128018	0.458086	0.055359	0.498946
BANKCREDIT	-0.597154	-0.019880	1.000000	0.418640	0.102263	-0.113417	0.644026
WORLDGDP	-0.533947	0.128018	0.418640	1.000000	-0.396781	-0.113180	0.303918
WPI	0.221117	0.458086	0.102263	-0.396781	1.000000	0.219562	0.171332
TB	0.620561	0.055359	-0.113417	-0.113180	0.219562	1.000000	-0.112626
ASSETS	-0.127356	0.498946	0.644026	0.303918	0.171332	-0.112626	1.000000

2011-2020

	NPA	GDPGR	BANKCREDIT	WORLDGDP	WPI	TB	ASSETS
NPA	1.000000	0.121502	-0.107541	-0.148885	-0.225364	0.461543	0.057564
GDPGR	0.121502	1.000000	0.655810	0.625900	0.626841	0.779921	0.734687
BANKCREDIT	-0.107541	0.655810	1.000000	0.975500	0.334267	0.665564	0.351263
WORLDGDP	-0.148885	0.625900	0.975500	1.000000	0.335274	0.656734	0.234382
WPI	-0.225364	0.626841	0.334267	0.335274	1.000000	0.429862	0.674619
TB	0.461543	0.779921	0.665564	0.656734	0.429862	1.000000	0.381191
ASSETS	0.057564	0.734687	0.351263	0.234382	0.674619	0.381191	1.000000

Source-own calculation

Regression Model-

$$Y = \alpha + \beta_1 GDP + \beta_2 Credit + \beta_3 WorldGDP + \beta_4 WPI + \beta_5 R + \beta_6 Assets + U$$

1. GDP

GDP is the final value of the goods and services produced within the geographic boundaries of a country during a specified period of time, normally a year. GDP growth rate is an important indicator of the economic performance of a country.

2. Bank CREDIT

Bank credit is commonly referred to as a loan to its borrowers, with or without a guarantee or collateral, for business requirements or personal needs, with an intention of receiving annual interest on the amount of the loan. At the conclusion of the loan tenure, which is properly decided and referred to in the Loan Contract, the principal sum is refunded.

3. World GDP

The combined gross national income of all the countries in the world is also known as Gross World Product. Because imports and exports balance exactly when considering the whole world, this also equals the total global gross domestic product (GDP).

4. WPI

Wholesale Price Index represents the price of goods at a wholesale stage i.e. goods that are sold in bulk and traded between organisations instead of consumers. In certain economies, WPI is used as an indicator of inflation.

5. R

An interest rate is defined as the proportion of an amount loaned which a lender charges as interest to the borrower, normally expressed as an annual percentage. A bank or other lender charges the rate at which its money is borrowed, or the rate at which a bank pays its savers to hold money in an account.

6. ASSETS

For a bank, the assets are the financial instruments that either the bank is holding (its reserves) or those instruments where other parties owe money to the bank.

7. U

Random error term

➢ REGRESSIONANALYSIS

Table no.-3.9**Regression result**

Dependent Variable: NPA				
Sample(adjusted): 2002 2020				
Included observations: 19 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDPGR	0.929584	1.170892	0.793910	0.4427
BANKCREDIT	-0.336823	0.417806	-0.806171	0.4358
WORLDGDP	-0.037216	0.031708	-1.173704	0.2633
WPI	-3.651661	1.706134	-2.140312	0.0536
TB	0.786125	0.192632	4.080963	0.0015
ASSETS	0.414337	1.177209	0.351965	0.7310
C	-1.228976	0.391422	-3.139774	0.0085
R-squared	0.698205	Mean dependent var		0.155921
Adjusted R-squared	0.547307	S.D. dependent var		0.245923
S.E. of regression	0.165463	Akaike info criterion		-0.482832
Sum squared resid	0.328535	Schwarz criterion		-0.134880
Log likelihood	11.58690	F-statistic		4.627014
Durbin-Watson stat	2.197138	Prob(F-statistic)		0.011656

Source-own calculation

Our regression result suggests that GDP, rate of interest and bank assets brings spike in the NPA while Bank credit, inflation rate and world GDP brings downturn in NPA. It can be

corroborated from the above result that inflation rate(WPI), rate of interest (TB) significantly affect the NPA (as their p value is less than .05) in India.

II. Micro Level Determinants/Sources of Asset Quality

- **Sector-wise disbursement of loan**

PRIORITY SECTOR AND NON-PRIORITY SECTOR

Priority Sector Lending refers to lending to those sectors of the economy that, in the absence of this special dispensation, do not get timely and sufficient credit. Priority Sector Lending is an essential function provided to banks by the (RBI) to provide a specific portion of bank lending to few specific sectors such as agriculture and allied activities, micro and small enterprises, poor people and poor people.In comparison to focusing only on the financial sector, this is essentially intended for all-round economic growth.

Categories under priority sector

I Agriculture (ii) Micro, small and medium-sized enterprises (iii) Credit for export (iv) Education (v) Housing (vi) Social infrastructure (vii) Renewable energy (viii) Other

(i) Agriculture

Agriculture sector includes the following

- Farm Credit (which will include short-term crop loans and medium/long-term credit to farmers)

  Loans to individual farmers [including Self Help Groups (SHGs) or Joint Liability Groups (JLGs), i.e. groups of individual farmers, given that disaggregated data on such loans are held by banks] directly involved in agriculture and Allied activities, i.e. milk, fisheries, livestock, poultry, beekeeping and sericulture.Loans to corporate farmers, farmers' producer organizations/individual farmers' companies, collaboration firms and farmers' cooperatives directly involved in agriculture and Allied activities, such as dairy, fisheries, animal husbandry, poultry, beekeeping and sericulture, up to an aggregate limit of Rs 2 crore per lender.

- Agriculture Infrastructure and

  (i) Loans for the construction of storage facilities (warehouses, market yards, godowns and silos) like cold storage units/cold storage chains, regardless of their location, built to store agricultural produce/products.

  (ii) Soil protection and growth of watersheds.

  (iii) Culture and agri-biotechnology of plant tissues, processing of seeds, production of bio-pesticides, bio-fertilizer, and vermicomposting.

  For the above loans, an aggregate sanctioned limit of Rs 100 crore per borrower from the banking system, will apply.

- Ancillary Activities

  (i) Loans up to Rs 5 crore to co-operative societies of farmers for disposing of the produce of members.

  (ii) Loans to develop Agricultural Clinics and Agribusiness Centres.

  (iii) Loans for Food and Agro-processing up to an aggregate sanctioned limit of Rs 100 crore per borrower from the banking system.

  (iv)Bank loans to Primary Agricultural Credit Societies (PACS), Farmers' Service Societies (FSS) and Large-sized Adivasi Multi-Purpose Societies (LAMPS) for on-lending to agriculture.

  (v) Loans sanctioned by banks to MFIs for on-lending to agriculture sector

  (vi)Outstanding deposits under RIDF and other eligible funds with NABARD on account of priority sector shortfall

(ii) Micro, Small and Medium Enterprises (MSMEs)

The limits for investment in plant and machinery/equipment for manufacturing / service enterprise, as notified by Ministry of Micro, Small and Medium Enterprises, vide S.O.1642(E) dated September 9, 2006 are as under:-

Manufacturing Sector	
Enterprises	**Investment in plant and machinery**
Micro Enterprises	Does not exceed twenty five lakh rupees
Small Enterprises	More than twenty five lakh rupees but does not exceed five crore rupees
Medium Enterprises	More than five crore rupees but does not exceed ten crore rupees
Service Sector	
Enterprises	**Investment in equipment**
Micro Enterprises	Does not exceed ten lakh rupees
Small Enterprises	More than ten lakh rupees but does not exceed two crore rupees
Medium Enterprises	More than two crore rupees but does not exceed five crore rupees

Bank loans to Micro, Small and Medium Enterprises engaged in providing or rendering of services and defined in terms of investment in equipment under MSMED Act, 2006, irrespective of loan limits, are eligible for classification under priority sector, w.e.f. March 1, 2018.

(iii) Education

Loans to individuals for educational purposes including vocational courses upto Rs 10 lakh irrespective of the sanctioned amount will be considered as eligible for priority sector.

(iv) Housing

Loans to individuals up to Rs 35 lakh in metropolitan centres (with population of ten lakh and above) and loans up to Rs 25 lakh in other centres for purchase/construction of a dwelling unit per family provided the overall cost of the dwelling unit in the metropolitan centre and at other centres should not exceed Rs 45 lakh and Rs 30 lakh respectively. The housing loans to banks' own employees will be excluded. Loans for repairs to damaged dwelling units of families up to Rs 2 lakhs.

The loans sanctioned by banks for housing projects exclusively for the purpose of construction of houses for Economically Weaker Sections (EWS) and Low Income Groups (LIG), the total cost of which does not exceed Rs 10 lakhs per dwelling unit. For the purpose of identifying the economically weaker sections and low income

groups, the family income limit is revised to Rs 3 lakhs per annum for EWS and Rs 6 lakh per annum for LIG, in alignment with the income criteria specified under the Pradhan Mantri Awas Yojana.

(v) Social infrastructure

Bank loans up to a limit of Rs 5 crore per borrower for building social infrastructure activities namely schools, health care facilities, drinking water facilities and sanitation facilities (including loans for construction/ refurbishment of toilets and improvement in water facilities in the household) in Tier II to Tier VI centres are eligible for classification under priority sector.

Bank credit to Micro Finance Institutions (MFI) extended for on-lending to individuals/ members of SHGs/ JLGs for water and sanitation facilities is also eligible for classification as priority sector loans under 'Social Infrastructure' subject to certain criteria.

(vi) Renewable Energy

Bank loans up to a limit of Rs 15 crore to borrowers for purposes like solar based power generators, biomass based power generators, wind mills, micro-hydel plants and for non-conventional energy based public utilities viz. street lighting systems, and remote village electrification. For individual households, the loan limit will be Rs 10 lakh per borrower.

(vii) Others

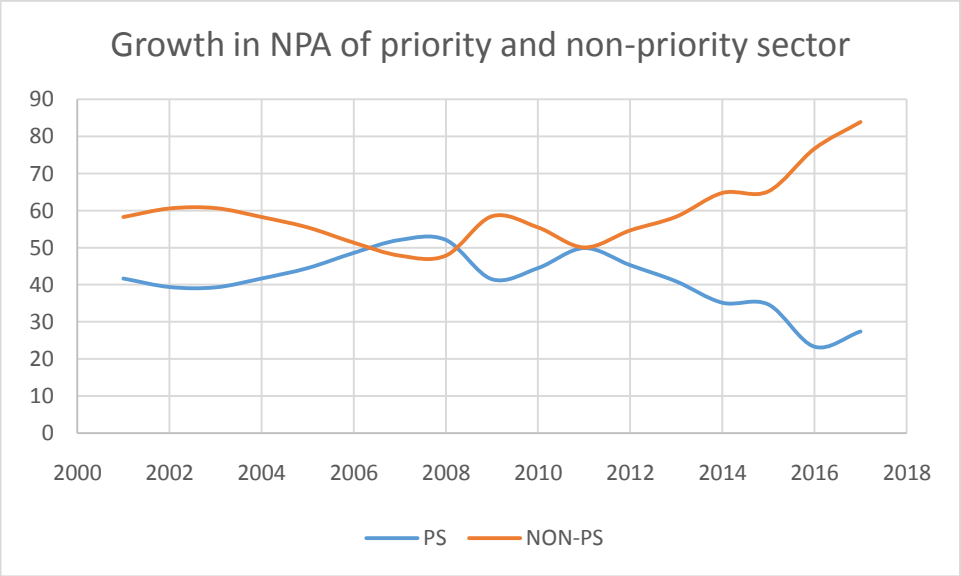
Loans not exceeding Rs 50,000/- per borrower provided directly by banks to individuals and their SHG/JLG, provided the individual borrower's household annual income in rural areas does not exceed Rs 10,00,000/- and for non-rural areas it does not exceed Rs 16,00,000/-.Loans to distressed persons not exceeding Rs 10,00,000/- per borrower to prepay their debt to non-institutional lenders.Overdrafts extended by banks upto Rs 5,000/- under Pradhan Mantri Jan-DhanYojana (PMJDY) accounts provided the borrowers household annual income does not exceed Rs 100,000/- for rural areas and Rs 1,60,000/- for non-rural areas.

Loans sanctioned to State Sponsored Organisations for Scheduled Castes/ Scheduled Tribes for the specific purpose of purchase and supply of inputs and/or the marketing of the outputs of the beneficiaries of these organisations.

- **Non-priority sector has contributed significantly to acceleration in total NPAs in the recent period**

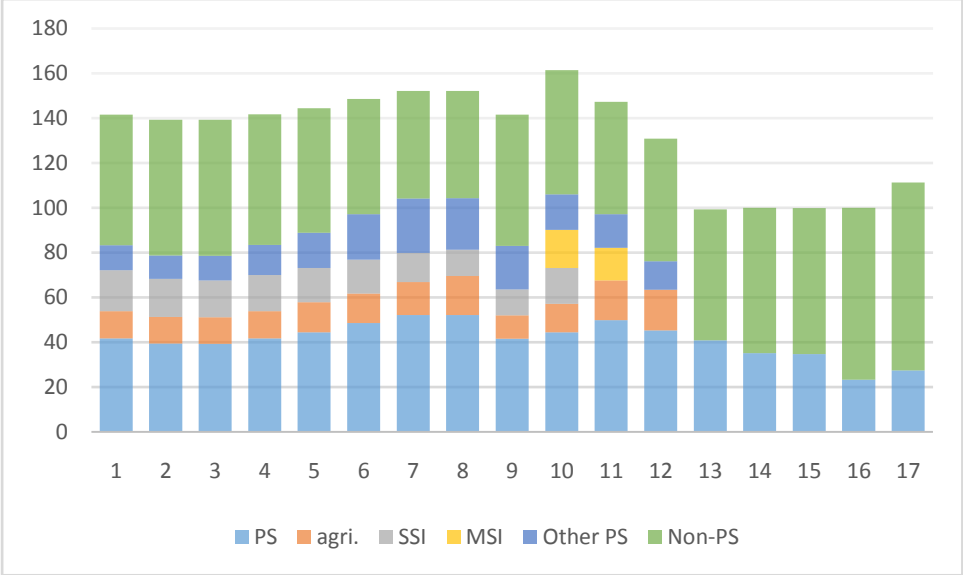
Bad loans corresponding to the non-priority sector have risen more rapidly in public sector banks compared to the priority sector, while gross improvement has seen higher growth in the priority sector. Therefore, while there is a higher increase in progress for the priority sector, public sector banks will handle their NPAs well in that sector**.**On the other hand, for private sector banks, the gross advance showed a marginally higher growth rate in the priority sector compared to the non-priority sector, while, in comparison to the priority sector, the NPAs of the non-priority sector posted an almost double-digit growth rate.

Fig-3.12 **Growth in NPA of priority and non-priority sector**



Source-own calculation

Fig-3.13 **SECTORAL SHARE IN NPA**

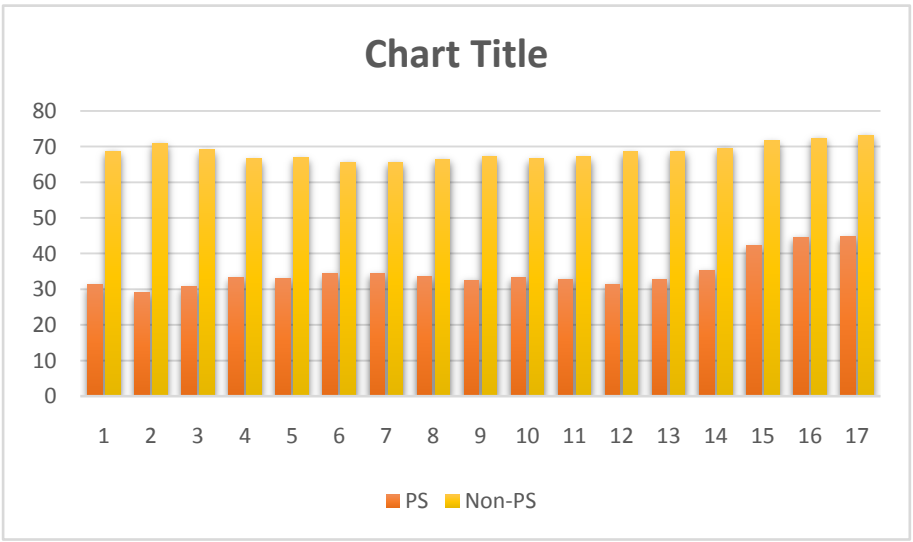


Source-own calculation

- **Priority sector share in aggregate NPAs not commensurate with its share in total credit**

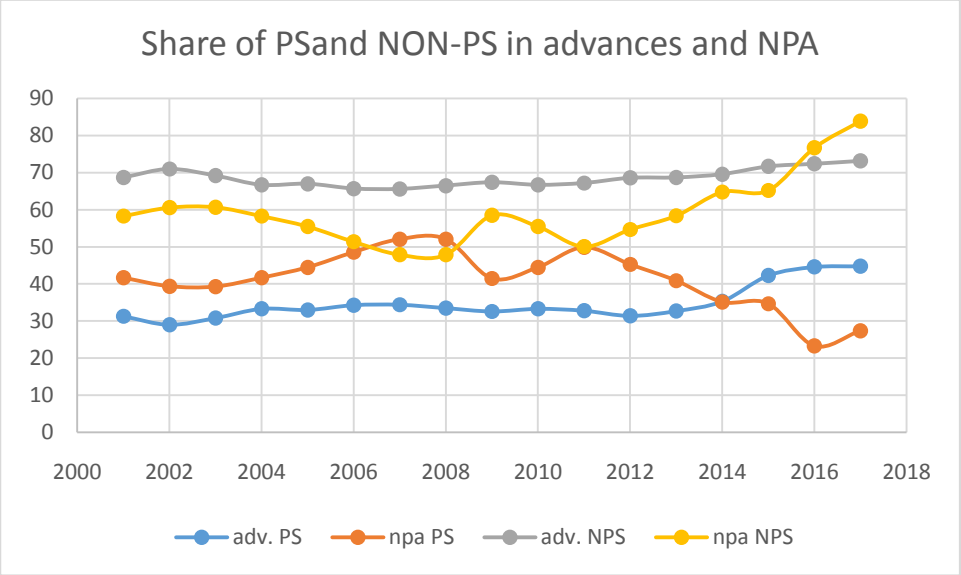
Since the last decade, the share of priority sector in gross advances averaged at over 32 per cent, while its share in total NPAs remained much higher, averaging at around 45 per cent.

Fig. no. 3.14**GROSS ADVANCES OF PRIORITY AND NON-PRIORITY SECTOR**



Source- own calculation

FIG-3.15 **SHARE OF PRIORITY AND NON-PRIORITY SECTOR IN ADVANCES AND NPA**



Source-own calculation

Share of non-priority sector in NPA is higher than in advances. Whereas share of priority sector in NPA is lower than in advances. We can say that after getting all the graphs that the share of non-priority sector is more in NPA.

Table-3.10**(Advances and NPA of priority sector and non-priority sector**)

YEAR	Advances Priority sector	NPA Priority sector	Advances Non-priority sector	NPA non-priority sector
2001	31.3	41.7	68.7	58.3
2002	29	39.4	71	60.6
2003	30.8	39.3	69.2	60.7
2004	33.3	41.7	66.7	58.3
2005	33	44.5	67	55.5
2006	34.3	48.6	65.7	51.4
2007	34.4	52.1	65.6	47.9
2008	33.5	52.1	66.5	47.9
2009	32.6	41.5	67.4	58.5
2010	33.3	44.5	66.7	55.5
2011	32.8	49.9	67.2	50.1
2012	31.4	45.3	68.6	54.7
2013	32.7	40.91	68.7	58.39
2014	35.3	35.16	69.6	64.79
2015	42.3	34.69	71.7	65.21
2016	44.6	23.3	72.4	76.7
2017	44.8	27.4	73.2	83.9

Source-RBI

CONCLUSION

In our study we are observing or analyzing the macroeconomic determinants. In trends we conclude that the average NPAs of public sector banks are the highest at 5.14%, followed by those of foreign banks (3.20%). Private banks have the lowest average NPAs at 1.28. The graph shows that the level of NPAs has more or less remained constant for a long period of time. However, during the past few years, NPA in the banks, has started to see an upward trend. While, the increase has been slight in the case of private and foreign, the level of NPA is rising at a rapid rate in public sector banks.

There is a significant mean and variance of NPA in public, private and foreign sector banks.Since 2007 NPA of foreign sector banks is highest and remains upto 2013-14, however after the 2013-14 NPA of private sector banks exhibits rising trend while NPA of public sector banks depicts more or less stable trend and foreign sector banks NPA shows lowest as compared to other banks.The study has taken six major factors that affect NPA that is BANK CREDIT, WORLD GDP, WPI, INTEREST RATE(TB), ASSETS, and applied regression model. Our estimated result suggest that rise in the GDP, rate of interest and banking assets brings spike in the NPA while bank credit, inflation rate and world GDP put down turn in NPA of scheduled commercial banks.

CHAPTER-4

IMPACT OF NPA ON PROFITABILITY AND FINANCIAL SOUNDNESS OF BANKS

I. INTRODUCTION

The increase in non-performing assets in the banks' portfolio creates a high loop in the banks' portfolio, and the question is whether the banks are properly managing NPA there.It is very difficult for commercial banks to advance loans to the primary sector, with at least the agriculture sector showing signs of stress over the past few years. Lending to agriculture is a part of priority sector lending. According to data released on 10 October by the Reserve Bank of India (RBI), lending to agriculture and allied activities showed a rise of 6.5 percent.

In examining a bank's financial performance, non-performing assets are a critical factor. The primary word for banking firms is Non-Performing Asset. Non-performing assets reflect the competence of the banks' results.Non-performing assets mean the sum that the bank does not earn in exchange for disbursed loans. Non-performing assets not only control the financial institution, but also the overall financial system. Thus, a selective analysis was conducted in India on public sector banks to assess the effects of non-performing assets on bank profitability.

Today, banks are not only judged on the basis of the number of branches and the quantity of deposits, but also on the basis of standard assets. NPAs have a negative impact on banks' profitability, liquidity and solvency, so we have worked in this paper to find the impact on the bank's profitability on NPA on primary sector lending.

The bank's non-performing assets apply to assets that do not offer any return, also known as bad credit. According to the Reserve Bank of India, non-performing assets are loans on which interest or principal amount payments remain overdue for a period of more than ninety days after the end of the year.Non-performing assets are characterised as short-term crop farming loans such as paddy, rice, etc. in terms of agriculture or farmer loans, on which interest or instalment is not paid for two crop seasons. Whereas in the case of long-term crops, it will be known as NPA if interest or payment is not charged for one crop season.

On November 13, 1979, a ratio-based model was first adopted by the Federal Financial Institute Review Council to assess the financial efficiency of the banking sector, which is called the 'CAMEL Model.' CAMEL is an acronym for capital adequacy, quality of assets, productivity of management, capacity to gain, and liquidity.According to the RBI guidelines, all commercial banks comply with the CAMEL criteria for accessing their financial position on the basis of a composite ranking from best to worst, so that the bank ranked worst is more focused on improving its financial health. (2015 Suba).

A sharp increase in their NPAs level has been reported in the Indian banking sector over the past ten years, causing the country's economic instability. The Reserve Bank of India (RBI) has adopted various resolution strategies from time to time, but the increased level of NPAs is hardly affected by them. The 2016 Insolvency and Bankruptcy Code was recently adopted by Parliament on 28 May 2016 to address stressed assets within a defined period of time and in an efficient manner.The first amendment to make it more effective was made in the bill on 23 Nov 2017 and the second amendment took place on 17 Aug 2018 and came into force on 6 June 2018.

The Indian banking sector has faced a burning problem of NPAs that hamper the growth of the Indian economy in all sectors, as a high level of NPAs indirectly implies a wide range of credit defaulters that have a negative effect on banks' net worth (Aggarwal and Malik, 2016). Income diversification is also a significant factor influencing the quality of assets of banks that have lower asset quality and vice versa, which follows income diversification (Ahmed, 2017).In India, several studies have been carried out to evaluate the pattern of NPAs in various bank sectors and also to investigate their causes and their effect on the profitability of the banking sector (Sukul, 2017; Sinha, 2016; Gandhi, 2015; Malini, 2015; Choudhary and Bhatnagar, 2014; Narula and Singla, 2014; Ahmad and Jegadeeshwaran, 2013; Khanna, 2012).A variety of statistical techniques has been used in these studied and found an overall increasing trend of NPAs in India and have a negative correlation with the profitability of Indian banks.In India, previous researches provide a strong evidence that among public and private sector banks level of NPAs is high in public sector bank as compared to private sector banks despite of taking various measures by government for tackling the increased level of NPAs and find an insignificant correlation between public and private sector banks with respect to their net profit and NPAs (Garg, 2016; Subhamathi, 2016) (Garg, 2016; Subhamathi, 2016). While

comparing the NPAs of public and private sector banks researcher drawn a conclusion that year 2016 was recognized as a black mark for public sector banks as its NPAs become more than doubled from previous year (Ahamed and Panwar, 2016) The impact of NPAs on profitability has been assessed by a researcher in a study by checking the impact of NPAs on Return on assets(ROA), Return on equity (ROE), Capital adequacy ratio, and Cost of capital among overseas banks and found they have impacted the growth of profitability of banks (Malini, 2015) so, it is economically sound to examined the relationship between NIM (Net Interest Margin) and NPAs among public and private sector banks and also to predict the impact of NPAs on operating profit of Indian banks.

Impact of NPA

- **liquidity**

  Banks are faced with the question of NPAs. They can not recover the money lent to the creditor. Money will be blocked at these times. For a short period of time, banks do not have enough capital in their hands.

- **Credit loss**

  When there are issues with their NPA that further impact the value of the banks in terms of retail credit, banks lose their credibility and brand equity in the market.

- **Profitablity**

  NPA not only impacts current earnings, but also the entire financial year's earnings.For all groups of NPA, the bank needs to have adequate provision, which differs for each group. If the asset stayed in a questionable category for up to one year, the banks need to provide 25 percent of it. Up to 40 percent if it remains doubtful for one to three years and 100 percent provisioning is needed if it remains in a doubtful category for more than three years, which has an overall effect on bank earnings.

In our study we are seeing impact of NPA on profitability and financial soundness on banking sector.

II. Impact of NPA on Profitability

We are observing impact of NPA on ROA and ROI.

(i) Impact of NPA on ROA

(ROA)RETURN ON ASSET

Return on assets (ROA) is a measure of how profitable a company is compared to its total assets. ROA offers an insight to a manager, investor, or analyst as to how effective the management of an organization is in using its assets to produce earnings. The return on assets is seen as a proportion.

Higher ROA indicates more asset efficiency.

a) Descriptive statistics

Table-4.1 (Descriptive Statistics of ROA)

	ROAFOREIGN	ROAPUBLIC	ROAPVT
Mean	1.738667	0.512667	1.278667
Median	1.75	0.88	1.28
Maximum	2.28	1.03	1.68
Minimum	1.26	-0.84	0.63
Std. Dev.	0.294688	0.628109	0.292816
CV	16.9492	122.517	22.9004

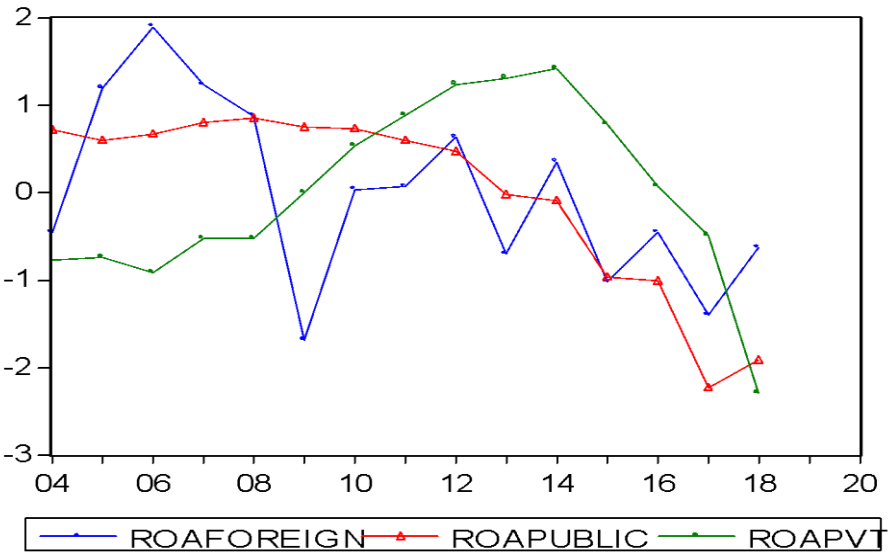
Source-own calculation

Coefficient Of Variation (Cv)=(Standard Deviation/MEAN*100)

Table 4.1 shows that variation in ROA is highest for the public sector bank while it is lowest for the foreign sector bank.

(a) Trend

Fig.4.1 **ROA of all three sectors**



It is evident from the figure 4.1 that in the period 2004-2008 ROA foreign is increasing and then from year 2006 it starts declining. ROA public is stable and less change is seen in period 2004-2008. ROA private is in increasing mode.In the period 2008-2012 ROA Foreign is increasing more than the ROA Public and ROA Private. Whereas other two are declining. All three are declining in this phase (2012-2016). ROA Foreign is higher than public and private in this phase (2016-2020). ROA Public is declining in this phase and reaches between -2to-3. RAO Private is declining with fast pace in this phase and is lowest than foreign and public.

(b) HYPOTHESIS TESTING

H_o: There is no significant difference in variance of ROA of all the three banks

H_A: There is a significant difference in variance of ROA of all the three banks

Table. 4.2 Hypothesis testing

Test for Equality of Variances Between Series			
Method	df	Value	Probability
Bartlett	2	11.29915	0.0035
Levene	(2, 42)	6.070816	0.0048

Source – own calculation

Above result suggest that null hypothesis is rejected as P value is less than .05 for Barlett test and Levene test for equality, therefore our result conclude that there is a significant difference in the variance of ROA of all the three banks.

H_o: There is no significant difference in mean of ROA of all the three banks

H_A: There is a significant difference in the mean of ROA of all the three banks

Table.4.3Hypothesis testing

Test for Equality of Means Between Series Sample: 2004 2018 Included observations: 15			
Method	df	Value	Probability
Anova F-statistic	(2, 42)	30.43670	0.0000

Source-own calculation

Similarly, above result suggest that null hypothesis is rejected as P value is less than .05 for Anova test for equality of mean, therefore our result conclude that there is a significant difference in the mean value of ROA of all the three banks.

Model applied:-

$$\mathbf{ROA = \alpha + \alpha + \beta 1 CDR_{IT} + \beta 2 Icof_{It} + \beta 3 NPA_{it} + \beta 4 GDPGR + \beta 5 SR + \beta 6 WPI + \beta 7 TB + U}$$

CDR

CREDIT DEPOSIT RATIO

For productive purposes, it is the sum of deposit or net liabilities used to provide loans/credits/advances to other industries. It measures the capacity utilisation by a bank or a banking system.

COF

COST OF FUNDS

The cost of the funds is a reference to the interest rate charged by the financial institutions for the funds used in their undertaking. The cost of the funds is one of the most significant input costs for a financial institution because, when the funds are used for short and long term loans to borrowers, lower costs would end up delivering better returns.

NPA

NON-PERFORMING ASSET

A non- performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.

GDPGR

GROSS DOMESTIC PRODUCTION GROWTH RATE

The growth rate of gross domestic product (GDP) tests how fast the economy is growing.Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of a given country’s economic health.

SR

SAVING RATE

The savings rate is a measure of the sum of money that an individual deducts from their discretionary personal income to set aside as a nest egg or for retirement, expressed as a percentage or ratio.

WPI

WHOLESALE PRICE INDEX

A wholesale price index (WPI) is an index which measures and monitors changes in the price of goods at stages prior to the retail level. This applies to goods sold in bulk and exchanged between companies or companies (instead of between consumers). Typically expressed as a ratio or percentage, the WPI indicates the included goods' average price change; it is also used as one measure of a country's level of inflation.

TB

RATE OF INTEREST OR TREASURY BILL RATE

The rate of interest is the price paid by the lender for the use of assets expressed as a percentage of the principal. The interest rate is typically noted on an annual basis known as the annual percentage rate (APR).

Table. 4.4Result of ROA public

Dependent Variable: ROAPUBLIC				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPALOGPUB	-0.556960	0.141697	-3.930651	0.0057
CDRPUBLIC	0.026121	0.026448	0.987630	0.3562
COFPUBLIC	-0.324417	0.562257	-0.576991	0.5820
GDPGR	9.676187	6.068190	1.594575	0.1548
SAVINGRATE	-0.218885	0.187901	-1.164896	0.2822
TB	1.906405	2.107028	0.904784	0.3957
WPI	-4.198019	3.470937	-1.209477	0.2657
C	4.238686	2.664734	1.590660	0.1557
R-squared	0.938996	Mean dependent var		0.512667
Adjusted R-squared	0.877992	S.D. dependent var		0.628109
S.E. of regression	0.219397	Akaike info criterion		0.108655
Sum squared resid	0.336944	Schwarz criterion		0.486281
Log likelihood	7.185090	F-statistic		15.39232
Durbin-Watson stat	2.161645	Prob(F-statistic)		0.000925

Source-own calculation

Table. 4.5Result of ROA private

Dependent Variable: ROAPVT				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPALOGPVT	-0.310859	0.074688	-4.162081	0.0042
CDRPVT	0.020189	0.014087	1.433217	0.1949
CDFPVT	-0.309032	0.080809	-3.824215	0.0065
GDPGR	5.559709	1.647805	3.374009	0.0119
SAVINGRATE	-0.183493	0.049876	-3.678977	0.0079
TB	1.954279	0.386775	5.052747	0.0015
WPI	-3.844708	1.409699	-2.727326	0.0295
C	1.967423	0.988792	1.989724	0.0869
R-squared	0.934441	Mean dependent var		1.278667
Adjusted R-squared	0.868883	S.D. dependent var		0.292816
S.E. of regression	0.106029	Akaike info criterion		-1.345685
Sum squared resid	0.078695	Schwarz criterion		-0.968058
Log likelihood	18.09263	F-statistic		14.25353
Durbin-Watson stat	2.642826	Prob(F-statistic)		0.001179

Table.4.6 Result of ROA foreign

Dependent Variable: ROAFOREIGN Sample(adjusted): 2004 2018 Included observations: 15 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPALOGFOR	-0.063585	0.167884	-0.378745	0.7161
CDRFOREIGN	0.031174	0.011808	2.640166	0.0334
COFFOREIGN	0.442247	0.109655	4.033093	0.0050
GDPGR	-8.326189	2.464357	-3.378645	0.0118
SAVINGRATE	0.306662	0.076419	4.012886	0.0051
TB	-0.608587	0.443322	-1.372786	0.2122
WPI	0.992794	1.801050	0.551231	0.5986
C	-3.230971	1.786182	-1.808870	0.1134
R-squared	0.895911	Mean dependent var		1.738667
Adjusted R-squared	0.791822	S.D. dependent var		0.294688
S.E. of regression	0.134456	Akaike info criterion		-0.870637
Sum squared resid	0.126548	Schwarz criterion		-0.493010
Log likelihood	14.52978	F-statistic		8.607183
Durbin-Watson stat	3.093478	Prob(F-statistic)		0.005492

Source –own calculation

It is evident from the above result that NPA posed a significant negative impact on Return of Assets of public sector banks i.e. one percent change in NPA cause .55 percent decline in the NPA of public sector. While other factor does not put significant impact on Return on Assets. Regression result of private sector banks also shows that NPA has significant deterrent impact on Return of Assets of private banks i.e. one percent change in NPA leads to .31 percent decline in the ROA of private sector banks. Further, except CDR all the variables i.e GDP growth, interest rate (TB), saving rate, WPI and CDF also play significant role in affecting the return of assets of private banks. In contrast, for the foreign banks NPA lead to negative impact on return of Assets but does not pose a significant impact on ROA. However, GDPGR, Saving rate, CDR and COF leads to a significant impact on Return of Assets of foreign banks.To sum up, we can say that in case of public sector banks NPA are highly and significantly affecting their ROA as compare to the private sector banks. In contrast, NPA is not so significant in case of foreign sector banks.

ii. IMPACT OF NPA ON ROI

RETURN OF INVESTMENT

Return on Investment (ROI) is a success metric that is used to determine an investment's effectiveness or to compare the effectiveness of a number of different investments. ROI aims to calculate the amount of return on a single investment directly, compared to the cost of the investment. The profit (or return) of an investment is divided by the cost of the investment to determine the ROI. The outcome is expressed as a percentage or a ratio.

a. DESCRIPTIVE STATISTICS

Table - 4.7(Descriptive Statistics ROI)

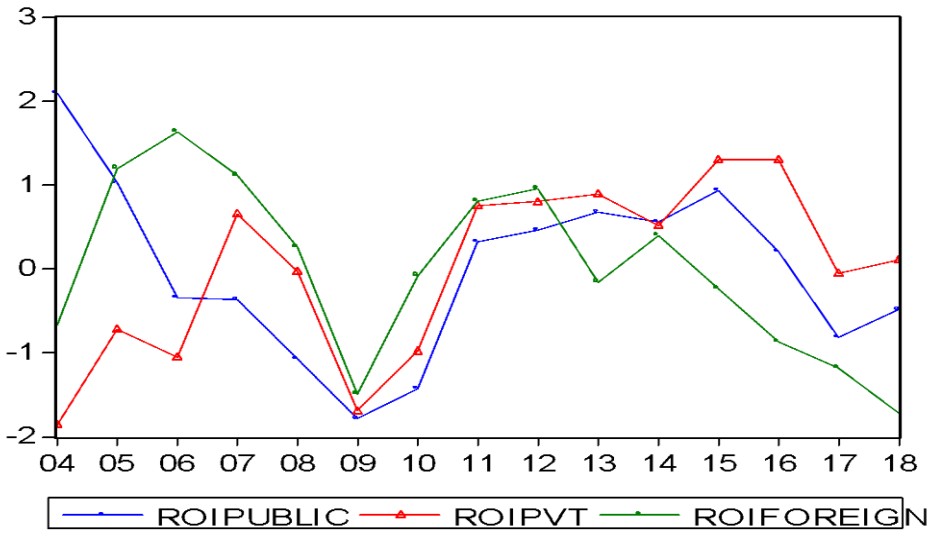
	ROIPUBLIC	ROIPVT	ROIFOREIGN
Mean	7.404	6.94133	7.44733
Median	7.49	6.99	7.39
Maximum	8.29	7.49	8.61
Minimum	6.65	6.16	6.23
Std. Dev.	0.43733	0.436	0.73474
CV	5.90667	6.28122	9.86582

Source-own calculation

Table 4.7 suggests that variation in ROI is highest for foreign bank while it is lowest for public sector bank.

(a) Trend

Fig - 4.2ROI of all three sectors



In above graph, in this phase (2004-2008) ROI of foreign is highest whereas ROI of public is declining. ROI of Foreign, public and private is decreasing and reaches its lowest point (2008-2012).

ROI of Foreign is declining in this period whereas ROI of private is highest in this phase than other two (2012-2018).

(C) HYPOTHESIS TESTING

H_o: There is no significant difference in variance of ROI of all the three banks

H_A: There is a significant difference in variance of ROI of all the three banks

Table – 4.8Hypothesis testing

Test for Equality of Variances Between Series Included observations: 15		
Method df	Value	Probability
Bartlett 2	5.274987	0.0715
Levene (2, 42)	3.559156	0.0373
Category Statistics		

Source- own calculation

According to the levene method null hypothesis is rejected as the P value is less than .05. Thus to conclude we can say that there is significant difference in the variance of Return of Investment in all the three banks.

H_o: There is no significant difference in mean of ROI of all the three banks

H_A: There is a significant difference in the mean of ROI of all the three banks

Table – 4.9 **Hypothesis testing**

Test for Equality of Means Between Series Included observations: 15			
Method	df	Value	Probability
Anova F-statistic	(2, 42)	3.842655	0.0293

Source – owncalculation

Similarly, above result suggest that null hypothesis is rejected as P value is less than .05 for Anova test for equality of mean, therefore our result conclude that there is a significant difference in the mean value of ROI of all the three banks.

Model applied- ROI = α+ $\beta 1 Cof_{IT}$ +$\beta 2 NPA_{it}$ + + $\beta 3$ Assets+ $\beta 4$GDPGR + $\beta 5$SR+ $\beta 6$WPI+ $\beta 7$TB+U

Dependent variable ROI denotes the Return of Investment of a bank

Independent variables:

COF denotes Cost of funds

NPA denotes non-performing asset

ASSETS denotes bank assets

GDPGR denotes gross domestic production growth rate

SR denotes saving rate

WPI denotes wholesale price index(inflation rate)

TB denotes treasury bill rate(rate of interest)

Table -4.10 Result of ROI public

Dependent Variable: ROIPUBLIC				
Sample(adjusted): 2004 2018				
Included observations: 15 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ASSETS	-6.420489	4.441937	-1.445426	0.1916
CoFPUBLIC	0.657610	0.696051	0.944773	0.3762
NPALOGPUB	-0.148384	0.216118	-0.686587	0.5144
GDPGR	6.491174	7.231874	0.897578	0.3992
SAVINGRATE	-0.377113	0.223807	-1.684990	0.1359
TB	-2.508231	2.386959	-1.050806	0.3283
WPI	-0.107292	3.964155	-0.027066	0.9792
C	14.51757	3.382996	4.291334	0.0036
R-squared	0.829506	Mean dependent var		7.404000
Adjusted R-squared	0.659012	S.D. dependent var		0.437326
S.E. of regression	0.255373	Akaike info criterion		0.412345
Sum squared resid	0.456508	Schwarz criterion		0.789971
Log likelihood	4.907415	F-statistic		4.865307
Durbin-Watson stat	2.265347	Prob(F-statistic)		0.026769

Table.- 4.11Result of ROI private

Dependent Variable: ROIPVT				
Sample(adjusted): 2004 2018				
Included observations: 15 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ASSETS	-9.154541	5.036416	-1.817670	0.1120
CDFPVT	0.843185	0.329762	2.556954	0.0377
NPALOGPVT	-0.136324	0.184473	-0.738989	0.4840
GDPGR	-1.036008	4.167425	-0.248597	0.8108
SAVINGRATE	0.037674	0.151888	0.248038	0.8112
TB	-1.251393	1.153256	-1.085095	0.3138
WPI	-3.941475	3.014376	-1.307559	0.2323
C	6.863080	2.257094	3.040671	0.0188
R-squared	0.861524	Mean dependent var		6.941333
Adjusted R-squared	0.723049	S.D. dependent var		0.436002
S.E. of regression	0.229451	Akaike info criterion		0.198274
Sum squared resid	0.368535	Schwarz criterion		0.575901
Log likelihood	6.512942	F-statistic		6.221491
Durbin-Watson stat	2.693699	Prob(F-statistic)		0.013861
Dependent Variable: ROIPVT				
Sample(adjusted): 2004 2018				
Included observations: 15 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ASSETS	-8.478594	3.983034	-2.128678	0.0659
CDFPVT	0.791980	0.241946	3.273370	0.0113
NPALOGPVT	-0.110720	0.143792	-0.770002	0.4634
SAVINGRATE	0.016912	0.119195	0.141886	0.8907
TB	-1.072301	0.846107	-1.267335	0.2407
WPI	-4.092386	2.774087	-1.475219	0.1784
C	6.579283	1.829376	3.596463	0.0070
R-squared	0.860302	Mean dependent var		6.941333
Adjusted R-squared	0.755528	S.D. dependent var		0.436002
S.E. of regression	0.215577	Akaike info criterion		0.073731
Sum squared resid	0.371789	Schwarz criterion		0.404154
Log likelihood	6.447018	F-statistic		8.211057
Durbin-Watson stat	2.689872	Prob(F-statistic)		0.004510

Table .4.12**Result of ROI foreign**

Dependent Variable: ROIFOREIGN				
Sample(adjusted): 2004 2018				
Included observations: 15 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ASSETS	4.876293	3.837003	1.270860	0.2444
CDRFOREIGN	0.090541	0.037213	2.433062	0.0452
NPALOGFOR	-0.962884	0.407724	-2.361610	0.0502
GDPGR	-11.84964	6.266849	-1.890845	0.1006
SAVINGRATE	0.230480	0.283897	0.811846	0.4436
TB	2.824322	0.944184	2.991284	0.0202
WPI	-4.898521	3.726135	-1.314639	0.2301
C	0.284137	5.797174	0.049013	0.9623
R-squared	0.908262	Mean dependent var		7.447333
Adjusted R-squared	0.816523	S.D. dependent var		0.734735
S.E. of regression	0.314717	Akaike info criterion		0.830244
Sum squared resid	0.693330	Schwarz criterion		1.207871
Log likelihood	1.773171	F-statistic		9.900577
Durbin-Watson stat	2.477307	Prob(F-statistic)		0.003622

Source – own calculation

It is evident from the above result that only NPA in foreign banks have significant negative impact on return on Investment of foreign banks. In contrast, NPA of public and private sector banks does not put much impact on investment.

iii. IMPACT OF NPA ON FINANCIAL SOUNDNESS

$$FS = \alpha + \beta 1CDR_{IT} + \beta 2NPA_{it} + \beta 3GDPGR + + \beta 4REER + \beta 5MCAP + U$$

Dependent variable i.e. financial soundness (FS), is gauged by the CAMEL indicators- C capital Adequacy Ratio, A is Assets Quality, M is the managerial efficiency, E is Efficiency ratio and L stands for Liquidity ratio. Thereafter, we prepare a CAMEL index by normalize these indicators. Whereas the independent variables used are –

CDR

CREDIT DEPOSIT RATIO

For productive purposes, it is the sum of deposit or net liabilities used to provide loans/credits/advances to other industries. It measures the capacity utilisation by a bank or a banking system.

NPA

NON-PERFORMING ASSET

A non- performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.

GDPGR

GROSS DOMESTIC PRODUCTION GROWTH RATE

The growth rate of gross domestic product (GDP) tests how fast the economy is growing. The rate compares the economic performance of the country's most recent quarter with that of the previous quarter.

REER

REAL EFFECTIVE EXCHANGE RATE

The real effective exchange rate (REER) is the weighted average of a country's currency in relation to an index or basket of other major currencies. The weights are calculated by measuring a country's currency's relative trade balance against each country within the index. This exchange rate is used to assess the currency value of a particular country in comparison to the other major currencies in the index.

MCAP

MARKET CAPITALISATION

Market capitalization refers to the total dollar market value of a company's outstanding shares of stock. Commonly referred to as the 'market cap,' it is determined by multiplying by the existing market price of one share the total number of outstanding shares of a business.

(a) **REGRESSION**

Result of the regression result is shown in the table----.

Table- 4.13**Result of regression**

Dependent Variable: FINANCIALSOUNDNE				
Sample(adjusted): 2004 2017				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPALOGPUB	-0.006266	0.003284	-1.907769	0.0928
CDRPUBLIC	-0.003368	0.000645	-5.218464	0.0008
REER	-0.191440	0.064365	-2.974314	0.0178
MCAP	-0.009375	0.001622	-5.780934	0.0004
GDPGR	-0.301654	0.139468	-2.162892	0.0625
C	1.910435	0.286027	6.679217	0.0002
R-squared	0.929419	Mean dependent var		0.526793
Adjusted R-squared	0.885306	S.D. dependent var		0.025722
S.E. of regression	0.008711	Akaike info criterion		-6.350921
Sum squared resid	0.000607	Schwarz criterion		-6.077039
Log likelihood	50.45645	F-statistic		21.06896
Durbin-Watson stat	2.243086	Prob(F-statistic)		0.000205
Dependent Variable: FINANCIALSOUNDNE				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPALOGPVT	0.019099	0.010484	1.821733	0.1060
CDRPVT	-0.004529	0.001338	-3.384819	0.0096
REER	-0.195125	0.099419	-1.962657	0.0853
MCAP	-0.007710	0.002385	-3.232506	0.0120
GDPGR	-0.113236	0.180523	-0.627268	0.5480
C	1.755183	0.426185	4.118363	0.0034
R-squared	0.861023	Mean dependent var		0.526793
Adjusted R-squared	0.774162	S.D. dependent var		0.025722
S.E. of regression	0.012224	Akaike info criterion		-5.673372
Sum squared resid	0.001195	Schwarz criterion		-5.399490
Log likelihood	45.71360	F-statistic		9.912664
Durbin-Watson stat	2.236048	Prob(F-statistic)		0.002821

Dependent Variable: FINANCIALSOUNDNE				
Included observations: 14 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPALOGFOR	-0.023762	0.009509	-2.498768	0.0370
CDRFOREIGN	-0.002064	0.000984	-2.096564	0.0693
REER	-0.377684	0.084143	-4.488574	0.0020
MCAP	-0.007830	0.002522	-3.104349	0.0146
GDPGR	-0.027299	0.209040	-0.130591	0.8993
C	2.751130	0.487999	5.637569	0.0005
R-squared	0.821229	Mean dependent var		0.526793
Adjusted R-squared	0.709498	S.D. dependent var		0.025722
S.E. of regression	0.013864	Akaike info criterion		-5.421580
Sum squaredresid	0.001538	Schwarz criterion		-5.147698
Log likelihood	43.95106	F-statistic		7.350014
Durbin-Watson stat	2.291502	Prob(F-statistic)		0.007315

Source- own calculation

Above result shows the impact of NPA on financial soundness of banking sector in India. Result shows that NPA of public sector, private sector does not have a significant impact on financial soundness while NPA of foreign banks significantly affect the financial soundness. Similarly, the MCAP and REER place a significant impact on financial soundness. Apart from it, Cash to Deposit ratio of public sector and private sector banks significantly affect the financial soundness.

CONCLUSION

In our study we are observing the impact of NPA on profitability and financial soundness of scheduled commercial banks. We are taking two indicators ROA and ROI in profitability.Coefficient of variation of ROA is highest in public sector banks while it is lowest for foreign bank, while CV of ROI is highest for foreign banks and lowest for public sector banks.There is significant difference in mean and variance of ROA of all three banks (since P value is less than .05). Similarly there is significant difference in mean and variance (according to levene method).In order to access the impact of NPA on profitability we use two variables i.e. ROA and ROI and applied multiple regression(using CDR,COF,GDPGR,SR,TB,NPA and WPI).Our estimated results states that NPA of public sector banks are highly significantly affect its ROA as compare to private sector banks in contrast it doesn't significantly affect its ROA.Whereas only NPA in foreign banks have significant negative impact on ROI of foreign banks. In contrast , NPA of public and private sector banks does not put much impact on investment.Our result states that NPA of public sector, private sector does not have a significant impact on financial soundness while NPA of foreign banks significantly affect the financial soundness. Similarly, the MCAP and REER place a significant impact on financial soundness. Apart from it, Cash to Deposit ratio of public sector and private sector banks significantly affect the financial soundness.

CHAPTER-5

POLICY IMPLICATIONS AND CONCLUSIONS

NPA Management and Recovery

Non-Performing Asset is an asset or account of borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss asset. At present banking industry is facing the toughest challenge i.e. to tackling NPAs. NPAs of Indian commercial banks are considered relatively high when compared to the international standards. Figure on NPA is an important parameter while analysis of financial performance of a bank done. NPA already crossed Rs 10.25 lakhcrore as on 31 March 2018. It has grown by Rs 1.39 Lakh Crores. Comparing to December 2017 Quarter it has increased by 16% and this amount is 11.8% of the total Loan given by banking industry. There are many reasons for rising NPA in Indian Banking Industry. Showing soft corner to corporate giants by relaxing lending norms and ignoring financial status and credit rating is another big reason of rising NPA in Corporate and Institutional Lending. Diversification of funds toother business/fraud , changes in business/regulatory environment, lack of morale (Wilful defaulter), global crisis , slowdown in a specific industrial segment like Textile, aviation, mining, Infrastructure where large number of loans given PSBs , unplanned expansion of corporate houses, bad lending practice and natural reasons such as floods, droughts are major reasons of NPA in India. To tackle NPA Banks are using different mechanism such as Debt RecoveryTribunals (DRTs), Corporate Debt Restructuring (CDR), SRFAESI Act, 2002, Credit Information onDefaulters and Role of Credit Information Bureau of India Ltd (CIBIL), Asset Reconstruction Companies (ARCs), LokAdalats and compromise settlement. Bankers play important role in NPA reduction. Due diligence, credit analysis, periodical inspection should be done properly to protect the account turning from NPA. No oral recommendation from the higher executives should be entertain while processing of Loans and advances. Credit Analysis must be depoliticized and no political pressure should be entertained. NPA is not a good sign and can result in crashing of banks as happened in the sub-prime crisis of 2008 in the USA.

According to asset classification given by Reserve Bank of India Non-Performing Asset implies a resource or record of borrower, which has been arranged by a bank or monetary establishment as substandard, doubtful or misfortune resource. NPA are endemic in

any association in which acquiring and loaning exercises are included this wonder came into spotlight during 1990‟ s because of activity of changes in the financial area. NPA not just antagonistically influence the effectiveness, productivity, liquidity and by and large execution of the financial area in any case, additionally the monetary improvement of the country. The hardest test banking industry currently confronting is handling NPAs. The NPAs of Indian business banks are considered moderately high when contrasted with the global principles.

They not only adversely affect the liquidity, efficiency, profitability and overall performance of the banking sector but also the economic development of the nation. Banking system runs through good relations with public, industrialists, entrepreneurs and farmers. Hence role of Government is also important in policy making and other aspects. Non- performance assets figure is an important parameter while analysis of financial performance of a bank done. The information on NPAs helps the commercial banking supervisors to monitor and discipline errantbanks and help the investors to assess the true financial worth of banks. The prudential norms on assets classification and income recognition of the RBI have to becomplied by all the commercial banks in order to present the real position of loan assets to match international standards. As a result several measures taken by the RBI and Government of India. NPAs of scheduled commercial banks have witnessed a secular decline with the initiation of norms of income recognition and asset classification.

Recovery Management of NPAs:

Major weapons used in India to tackle NPA are as follows:-

a). Debt Recovery Tribunals(DRTs):

The Recovery of Debts due to Banks and Financial Institutions Act was passed in 1993, to provide for the establishment of tribunals, for expeditious adjudication and recovery of debts due to banks, and financial institutions. The amendments made in 2000 to the above Act and the rules framed there under have strengthened the functioning of DRTs. On the recommendation of RBI, Government has since set up a working group headed by the Additional Secretary (FS), Government of India to improve the functioning of DRTs to enables the borrower to make an application before the DRT, against the measures takenby the secured creditors, without depositing any portion of the money due; Provision for the DRT to dispose of the application as expeditiously as possible, within a period of 60 days from the date of the application; and enables any person aggrieved by any order made by

DRT to file an appeal before the Debit Recovery Appellate Tribunal, after depositing with the Appellate Tribunal, forty percent, of the amount due from him, as claimed by the secured creditor or as determined by the DRT, whichever is less.

Table-5.1 DRTS

Year (End March) -1	***Number of Cases Referred -2***	***Amount Involved (Rs.in Crore) -3***	***Amount Recovered (Rs.in Crore) -4***
2005	185395	14317	2688
2006	3534	6273	4735
2007	4028	9156	3463
2008	3728	5819	3020
2009	2004	4130	3348
2010	6019	9797	3133
2011	12872	14100	3900
2012	13365	24100	4100
2013	13408	310	44
2014	28258	553	53
2015	22004	604	42
2016	24537	693	64
2017	28902	671	164
2018	52175	306499	10574

Source-RBI

B. LokAdalat

LokAdalat is a forum where disputes/cases pending in the court of law or at a pre-litigation stage are settled under Legal Services Authorities Act, 1987. LokAdalat has proved as an effective institution for settlement of dues in respect of smaller loans. The Indian Banks‟ Association (IBA) has been issuing guidelines to member institutions for taking up of cases for settlement with LokAdalats. The ceiling on the amount of coverage under LokAdalats would be Rs.10 lakhs and above. This scheme includes both suits filed and non suit filed accounts in the doubtful and loss category. Lokadalat were functioning at different levels,

which are State level, High court level, District level and Taluk level and conducted at the equal interval which given below:

1. Mega LokAdalats at the District Court Centres - At least once in every month
2. Regular Weekly LokAdalats at all Court Centres Every week subject to the convenience of the DLSA/TLSCs
3. National LokAdalat - To be conducted bi –monthly on Second Saturdays and other days as directed by the National Legal Services Authority (NALSA).

Table-5.2 LOK ADALAT

Year (End March) -1	***Number of Cases Referred -2***	***Amount Involved (Rs.in Crore) -3***	***Amount Recovered (Rs.in Crore) -4***
2005	4744	801	113
2006	268090	2144	265
2007	160368	758	106
2008	186535	2142	176
2009	548308	4023	96
2010	778833	7235	112
2011	616018	5300	200
2012	476073	1700	200
2013	84061	66	4
2014	1636957	232	14
2015	2958313	310	10
2016	4456634	720	32
2017	2152895	1058	38
2018	4080947	53506	2816

Source-RBI

C. Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI)

The SARFAESI Act was passed in the year 2002 as per the recommendation of the Narasimham committee II; it recommended to enact a new legislation in order to regulate the securitization and reconstruction companies and to empower the banks and financial institutions to take possession of the secured assets directly from the borrowers and dispose it to realize the due without delay of legal proceedings. It came into force on 17th December, 2002.

SARFAESI Act facilitates to realize long-term assets, manage problems of liquidity and asset liability mismatches and to improve recovery by exercising powers to take possession of securities. According to this ordinance, if corporate borrower defaults on its loans for 180 days, the Banks/FIs can intimate the borrower for the repayment by issuing a notice. Bank/FIs can proceed with the acquisition of assets in 60 days of the non repayment after the issue of notice. The Bank further proceed to issue a possession notice under section 13 (4) of the Act, then it will proceed to take physical possession of the property under Section 14 of the Act through District Magistrate; the Magistrate Court appoints an Advocate Commissioner to take physical possession of the property and the Bank officials to accompany him. Then the Bank will proceed to sell the property/secured interest and the Bank is supposed to strictly comply with the provisions of the Act. The stringent provisions under SARFAESI Act, 2002, one can undermine the rights of the borrower and his right to property. According to the Report on Trend and Progress of Banking in India, 2012-13, among the three channels for NPA recovery, the largest amount was recovered through the SARFAESI Act. NPAs recovered through this Act accounted for about 80 per cent of the total amount of NPAs.

Table-5.3 SARFAESI ACT

Year	Number of Cases Referred	Amount Involved (Rs. in crores)	Amount Recovered (Rs. in crores)
2005	39288	13224	2391
2006	41180	9831	3423
2007	60178	9058	3749
2008	83942	7263	4429
2009	61760	12067	3982
2010	78366	14249	4269
2011	118642	30604	11561
2012	140991	35300	10100
2013	190537	68100	18500
2014	194707	95300	25300
2015	175355	156800	25600
2016	173582	80100	13200
2017	80076	1131	78
2018	91330	81879	26380

Source-RBI

D. Asset Reconstruction Companies

Asset reconstruction companies are set up, and registered with the Reserve Bank of India (RBI) as a securitization company (SC) and reconstruction company (RC) to acquire distressed secured financial assets. The underlying idea of bringing ARCs under SARFAESI Act is to enable banks to clean up their balance sheets, pass on the burden of recovery to an agency which could help faster resolution of NPAs.. SARFAESI Act permits ARCs to purchase financial assets through an agreement with the banks. Banks and FIs may receive bonds/ debentures in exchange for NPAs transferred to the ARCs. Certain value can be paid in the form of Security Receipts (SRs). Latest regulations instruct that ARCs should give 15% of the value of assets in cash. Bond or debentures can have a maximum maturity of six years and should have a rate of interest at least 1.5% above the RBI‟ s „bank rate‟ .

SARFAESI Act stipulates various measures that can be undertaken by ARCs for asset reconstruction. These include:

Acquisition of financial assets

a) Valuation procedure for assets having realizable value

b) Plan for the realization of assets acquired for reconstruction

c) The sale or lease of the business of the borrower

d) Entering into settlements

e) Restructuring or rescheduling of debt

f) Enforcement of security interest

ARCs and the secured creditors cannot enforce the security interest under SARFAESI Act, unless at least 75% by value of the secured creditors agree to the exercise of this right. Besides restructuring, the ARCs can perform certain other functions as well. They are permitted to act as a manager of collateral assets taken over by the lenders by receiving a fee. Similarly, they can also function as a receiver, if appointed by any Court or DRT.

E. Insolvency And Bankruptcy Code 2016

A comprehensive bankruptcy framework is a crucial factor for the resilient Banking sector. Insolvency and Bankruptcy Code (IBC), 2016 was drafted by a specially constituted 'Bankruptcy Law Reforms Committee' (BLRC) under the Ministry of Finance. IBC is the single law that deals with insolvency and bankruptcy by consolidating and amending various laws relating to reorganization and insolvency resolution. The IBC covers individuals, companies, and partnership firms.

The four pillars of the IBC 2016 are Insolvency Professionals, Information utilities, Adjudicating authorities and Insolvency and Bankruptcy Board of India.

F. Insolvency Resolution Process

IBC can undertake insolvency resolution process against both individual/partnership unit and corporate debtors. IRP of individual units starts with the process of preparation of repayment plan by the debtors. On the acceptance of repayment plan by creditors the adjudicating

authority DRT will further bind the debtor and creditor to initiate the process otherwise debtor or creditor can apply for a bankruptcy order.

IRP provides a collective mechanism for lenders to deal with the overall distressed position of a corporate debtor. It involves with the distinct actions of recovery, security enforcement and debt restructuring. It starts with the applying for insolvency proceedings in NCLT. After the appointment of Insolvency professional by NCLT, the authority of defaulting debtors over the management will be shifted to the insolvency professional who is acting as an agent of the creditors. It enables the creditors to oversee the business in order to prevent asset stripping on the part of the promoters. In order to make a collective decision, the resolution professional forms the creditor committee which proposes the revival plan or liquidation within the stipulated time bound of 180 days. Decisions of the committee of creditors will bind on the corporate debtor and all its creditors.

Major Findings of the Study

Commercial banks are faced with the possibility of default by the creditor in the payment of either principal or interest in the conventional banking business of lending, funded by deposits from clients. The form of risk in banking is known as credit risk in common parlance, and where the borrower is unable to repay interest payments and/or principal repayments are regarded as NPA. According to RBI guidelines, if it is unable to generate revenue for the bank, any asset including a leased asset becomes non-Performing if the existence of Non-Performing Asset is an integral part of banking and each bank has some NonPerforming Assets in its advance portfolio. The high NPA level, however, is a source of concern for any financial institution. It can be said that in the context of principal and interest payments, Non Performing Asset (NPA) is not capable of giving the lender any revenue. In the field of non-performing assets, numerous research papers, published article, are available and a large number of researchers have researched the topic of NPA associated with the banking industry. Due to the low asset quality of the bank and the lending of bad loans to the borrowers by the bank, the economic downturn of many countries is the product of non-performing assets. In other terms, the Non-Performing Asset (NPA) applies to the borrower's loan obligation if, for an extended period of time, he has not paid any previously negotiated interest and principal repayments to the designated lender. The increasing proportion of non-performing assets (NPAs) has drawn the attention of government, bankers, economists and

the general public to the advances of banks and financial institutions. The NPAs have been portrayed as a waste of public money that should be used with the utmost caution and a sense of obligation.All concerned realised that the growing NPAs could inevitably destabilise and even kill the NPAs' financial sector. The entire process of economic development can be jeopardised by an insecure and poor financial/banking sector because banks have been correctly called the nerves of economic growth.The definition of Non-Performing Assets for India Banking is not entirely unknown. Banks previously had a system for identifying sticky or worrying accounts, such accounts were known as problem credits or bad or doubtful debt.The repayment of interest/installments in such accounts was either not easily obtained according to the schedule or the recovery of interest/installments could not be entirely effected due to the erosion of securities paid to them with the persistent application of interest/other charges regardless of recovery. In any case, on account of such a credit portfolio, the banks were liable to losses.This was partly because of the real business risks to which lending operations are subject and partly because of the complacency and security-oriented approach. Banks find it wise, through practise, not to count such interest/other payments as part of their profits and pay tax on unrealized income.Therefore, the banks have followed the strategy of stopping charging interest on certain accounts of a poor or questionable sort, and where the prospects for recovery have been grim.The banking sector has been confronted with the increasing problem of NPAs in recent years.

In recent years, the banking sector has been facing serious issues with rising NPAs. A stable banking system is where the need for a booming economy lies. Growing NPAs are contributing to the collapse of the banking sector, which may have a significant adverse effect on other sectors. The banking sector faces the challenges of an open economy with the introduction of liberalisation, globalisation and privatisation of economic policies today.NPAs are an unavoidable burden for any financial system, and this requires regularly track to avoid being an NPA for any account. On the basis of the literature and other studies analysis, it is concluded that the bank's performance depends on proper management of NPAs and holding them within the tolerance limit.In the current dynamic global climate, NPA's management is The need of the hour . In order for the banking sector to become successful, NPA management must be an exercise from the board down to the final level for the entire bank. In the last three decades, especially after the time of liberalisation, The RBI, in collaboration with banks like the SARFAESI Act etc., has introduced many regulatory steps to regulate the NPA and push it to the optimum level.While these steps are necessary and

have largely helped banks reduce their NPA level, the generation of fresh NPA in particular highlights the need for an effective credit risk management system in the face of an increased trend since the financial crisis. NPAs are draining the banks' liquidity and undermining their economic strength. It's also a political and financial issue as well.The adoption of pragmatic and organised non-performing assets by banks and financial institutions should be more cautious.Policy of management where priority is given to the avoidance of non-performance properties.

To analyse the trends of NPA in various scheduled commercial banks.To examine the major determinants of NPA in scheduled commercial bank of india.To ascertain the impact of NPA on profitability of various (public,private and foreign) banks.To ascertain the impact of NPA on financial soundness of various(public, private and foreign) banks.To draw conclusion and give suggestions based on overall study.

Most of the studies conducted so far are based on only one indicator or either on profitability, productivity, or any single variables like ROA, ROI….etc.Present study is an attempt to enrich the literature by assessing the impact of NPA on profitability as well as financial soundness of scheduled commercial banks.

An overview of the current research is given in this section a research focusing on Non-Performing Assets in Business of Indian banking. Banking system is considered as basic part in economic progress and improvement of a nation through activation of reserve funds and arrangement of assets to the beneficial segments. 'Non Performing' question Assets are not limited to Indian banks. In reality, this is the asset.The issue of all the world's nations, regardless of nation, is Make, create, or be bad. This study highlights the impact of NPA on profitability and financial soundness or the banking sector; also evaluated asset quality of all three sectors and the determinants of NPA. This research has used secondary sources of data mostly from RBI. Present study has used statistical tools and econometric tools.

Validations of Hypothesis

1. There is no significant mean difference in NPA of various (public, private, foreign) banks.

   This hypothesis is rejected as there is significant mean difference in NPA of public, private and foreign banks.

2. There is no significant difference in impact of NPA of public and private sector bank on profitability (ROA).

   In our study the results states that null hypothesis is rejected as P value is less than .05 for Levene test for equality, therefore our result conclude that there is a significant difference in the variance of ROA of all the three banks.Similarly, null hypothesis is rejected as P value is less than .05 for Anova test for equality of mean, therefore our result conclude that there is a significant difference in the mean value of ROA of all the three banks. Hence hypothesis is rejected.

3. There is no significant difference in impact of NPA of public and private sector bank on their financial soundness.

   In our study the results shows that NPA of public sector, private sector does not have a significant impact on financial soundness while NPA of foreign banks significantly affect the financial soundness. Similarly, the MCAP and REER place a significant impact on financial soundness. Apart from it, Cash to Deposit ratio of public sector and private sector banks significantly affect the financial soundness. Hence this hypothesis is accepted as there is no significant difference in impact of NPA of public and private sector on their financial soundness.

The key principles of financial sector reform in India can be defined as strengthening the financial sector and improving the functioning of financial markets. Huge progress has been made by the RBI in changing the policy structure for reforms. Improvements in profitability, productivity and stability have been seen in the banking sector, but the fact remains that the social priorities before the banks are said to be side-tracked, with every focus being put on banks' financial power, capital adequacy and profitability.The accumulation of NPAs that relate to the accumulation of problematic loans over a period of time is one of the major weaknesses of banking in India in the recent past. In recent years, the NPA problem has been widely discussed in the sense of bank performance at the level of NPAs, cost of funds and subsidised lending, etc. In order to improve the performance of banks, growth in NPAs needs to be limited. The quality of assets is a measure of the soundness of financial institutions. To reduce the level of NPA, public sector banks should disburse their funds into quality assets.As the risk profile of lending by banks is more diversified, it is important for banks to pay adequate attention to the quality of lending in order for credit expansion to be able to build on higher profitability on a sustainable basis while maintaining financial stability. It is

important to fix one thing on a serious note, i.e. disappointing results. As happened in the sub-prime crisis of 2008 in the USA, the growth of the NPA is not a positive sign and can lead to bank crashes.

There is a significant mean and variance of NPA in public, private and foreign sector banks.Since 2007 NPA of foreign sector banks is highest and remains upto 2013-14, however after the 2013-14 NPA of private sector banks exhibits rising trend while NPA of public sector banks depicts more or less stable trend and foreign sector banks NPA shows lowest as compared to other banks.The study has taken six major factors that affect NPA that is BANK CREDIT, WORLD GDP, WPI, INTEREST RATE(TB), ASSETS, and applied regression model. Our estimated result suggest that rise in the GDP, rate of interest and banking assets brings spike in the NPA while bank credit, inflation rate and world GDP put down turn in NPA of scheduled commercial banks. In our study we are observing the impact of NPA on profitability and financial soundness of scheduled commercial banks. We are taking two indicators ROA and ROI in profitability.Coefficient of variation of ROA is highest in public sector banks while it is lowest for foreign bank, while CV of ROI is highest for foreign banks and lowest for public sector banks.There is significant difference in mean and variance of ROA of all three banks (since P value is less than .05). Similarly there is significant difference in mean and variance (according to levene method).In order to access the impact of NPA on profitability we use two variables i.e. ROA and ROI and applied multiple regression(using CDR,COF,GDPGR,SR,TB,NPA and WPI).Our estimated results states that NPA of public sector banks are highly significantly affect its ROA as compare to private sector banks in contrast it doesn't significantly affect its ROA.Whereas only NPA in foreign banks have significant negative impact on ROI of foreign banks. In contrast, NPA of public and private sector banks does not put much impact on investment.Our result states that NPA of public sector, private sector does not have a significant impact on financial soundness while NPA of foreign banks significantly affect the financial soundness. Similarly, the MCAP and REER place a significant impact on financial soundness. Apart from it, Cash to Deposit ratio of public sector and private sector banks significantly affect the financial soundness.

SUGGESTIONS

1. More rigorous credit evaluation from the banks' point of view. Weak banks could pursue narrow banking until such time their books look better after capitalization. This method may also mean occasionally shrinking the balance sheets.

2. Better asset monitoring, especially for those with high value. To tackle this dilemma, there may be different divisions.

3. Have in place early warning signals to flag certain issues. In addition to the standard financial metrics, this will be the essence of picking up signals on policy or market changes.

4. Better dissemination of data on NPAs, especially on those who are wilful defaulters or have a very large overhang of debt. When sanctioning fresh loans, this can be beneficial for banks.

5. Recognizing the same in a prudent manner and making provisions thereof.

6. In those banks that have high NPAs, resolving governance concerns.

7. Asset reconstruction companies would need to run in parallel to takeover such assets. Creating a bad bank is an idea to be pursued in this respect.

8. In resolving this issue, passing the bankruptcy code would be very helpful.

LIMITATIONS OF THE STUDY

- Time constraints – we cannot perform primary study.
- Further selective study of individual banks under public, private, foreign banks also cannot performed

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A STUDY OF STRESS & ITS IMPLICATIONS:
WITH REFERENCE TO CRICKET UMPIRES

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DECLARATION

I **Sanjay Jain** S/o **Vijay Kumar Jain** resident of **71, Nakoda Complex, Hiran Magri, Sector -4, Udaipur** hereby declare that the Research work incorporated in the present Dissertation entitled **"A Study of Stress & its implications: with reference to Cricket Umpires"** is my own work and is original. This research work (in part or full) has not been submitted to any University for the award of a Degree or a Diploma. I have properly acknowledged the material collected from secondary sources wherever required. I solely own the responsibility for the originality of the entire content.

Date: 06/01/2023

(SANJAY JAIN)

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PREFACE

Although Cricket is not the official National sport in India, It begets much more excitement and a greater fan following than the official national sport Hockey. Why only Hockey? In fact no other sport in India can claim the position of Cricket in respect to its popularity. Go to any part in India from Jammu & Kashmir in the north to Kerala and Tamil Nadu in south or from Maharashtra in the west to Assam in the east.

There may be many religions in this secular country called India, but it is said that Cricket unites Indians better than any Religion can ever do. It is Cricket that enjoys supremacy in terms of Fan following. With millions of ardent followers, Cricket is the "Religion" of India. "Men in Blue" are absolutely adored by the crazy Cricket fans and their fame outshines the popularity of any other celebrity. From a school going kid to retired old man, the charisma of Cricket has enchanted almost every Indian. People plan their activities, Leaves and travel plans after checking out the Schedule of Indian Cricket Team. Cricket is also the faster way of befriending an Indian.

The main object of the present study is to identify stressors to Cricket Umpires before, during and after the match and how they deal with such stressors.

The 1st Chapter is Introduction of Stress Management. It describes the concept of Stress. It also includes the various aspects such as definitions, sources, types, Impact of Stress on Human performance, Management of Stress, Pressure Situations, Attributes of an Umpire and Cricket Terminology.

The 2nd Chapter of the study is Research Methodology. This chapter deals with introduction of Research and Methodology, Objective of Research, Need and Scope of the study, Review of Literature, Hypothesis and Sampling plan and Constraints and Rationale of the study.

The 3rd Chapter of the study is Historical Background and Development. This chapter deals with the history of Cricket and few examples which ensure that how a stress can impact the life of a Umpire. This chapter also focuses on the role of Stress and Depression in Cricket.

The 4th Chapter of the study is Game Management & Psychological Aspect. This chapter deals with the Role of an Umpire, what makes an Umpire, Umpiring Technique and procedure to become a Cricket Umpire in India. This chapter also includes the Role of Umpires Coach and Mentor and various Stress situations and to cope up with those Stress situation how Umpire deal with it.

The 5th Chapter of the study is Impact of Symbiotic Relationship. This chapter deals with the various skills like Life and Soft skills, Mental skills and Physical Skills which are required to become a Cricket Umpire. This also includes the Impact of Stress on Physical, Mental and Professional part.

The 6th Chapter of the study is Empirical Data Analysis. This chapter deals with the Data analysis and interpretation. Data are analyzed and summarized in different types of tables, graphs and interpreted with various aspects of Stress and their solutions.

The 7th Chapter of the study is Conclusion and Suggestion. It includes Conclusion, Findings and Suggestions regarding the Stress Situation and how to overcome with those Situations.

(SANJAY JAIN)

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I also wish to express my sincere gratitude to my beloved parents **Late Mr. Vijay Kumar Jain, Mrs. Usha Jain**, my wife **Mrs. Sweety Jain** for their inspiration and encouragement to take up this research work.

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Place: Udaipur **(SANJAY JAIN)**

Date:

List of Tables

Table	Title	Page
6.1	Involvement in Umpiring	107
6.2	Respondents' Age Group	108
6.3	Have you yourself played Cricket	109
6.4	Level on which Umpires played Cricket	110
6.5	Personal Annual Income Level	111
6.6	The Level you Represent	112
6.7	Since how long are doing Umpiring	113
6.8	Life and Soft Skills required for doing Umpiring	114
6.9	Mental Skills required for doing Umpiring	116
6.10	Physical Skills required for doing Umpiring	118
6.11	Is Physical & Mental stress is a Hindrance to do Umpiring	120
6.12	Physical Stressors before and during doing umpiring	121
6.13	Mental Stressors before and during doing Umpiring	123
6.14	Body part which they feel most Stressed after the Game	126
6.15	Sources of Stress – General	128
6.16	Sources of Stress – Cricket Umpiring Related	130
6.17	How much following contribute in Successful Performance – Personal	132
6.18	How much following contribute in successful Performance - Cricket Umpiring	135
6.19	How much following create Stress and hinder Performance – Personal	138
6.20	How much following create Stress and hinder Performance - Cricket Umpiring	140
6.21	Methods of dealing with Stress	143

List of Graphs

Graph	Title	Page
6.1	Involvement in Umpiring	107
6.2	Respondents' Age Group	108
6.3	Have you yourself played Cricket	109
6.4	Level on which Umpires played Cricket	110
6.5	Personal Annual Income Level	111
6.6	The Level you Represent	112
6.7	Since how long are doing Umpiring	113
6.8	Life and Soft Skills required for doing Umpiring	114
6.9	Mental Skills required for doing Umpiring	116
6.10	Physical Skills required for doing Umpiring	118
6.11	Is Physical & Mental stress is a Hindrance to do Umpiring	120
6.12	Physical Stressors before and during doing umpiring	121
6.13	Mental Stressors before and during doing Umpiring	123
6.14	Body part which they feel most Stressed after the Game	127
6.15	Sources of Stress – General	128
6.16	Sources of Stress – Cricket Umpiring Related	130
6.17	How much following contribute in Successful Performance - Personal	132
6.18	How much following contribute in successful Performance - Cricket Umpiring	135
6.19	How much following create Stress and hinder Performance – Personal	138
6.20	How much following create Stress and hinder Performance - Cricket Umpiring	140
6.21	Methods of dealing with Stress	144

CONTENTS

Chapter	Title	Page
	Preface	*i – ii*
	Acknowledgement	*iii*
	List of Tables	*iv*
	List of Graphs	*v*
1.	INTRODUCTION	1 – 26
2.	RESEARCH METHODOLOGY	27 – 68
3.	HISTORICAL BACKGROUND AND DEVELOPEMENT	69 – 77
4.	GAME MANAGEMENT AND PSYCHOLOGICAL ASPECT	78 – 92
5.	IMPACT OF THE SYMBIOTIC RELATIONSHIPS	93 – 105
6.	DATA ANALYSIS AND INTERPRETATION	106 – 148
7.	CONCLUSION AND SUGGESTIONS	149 – 155
	BIBLIOGRAPHY	156 – 166
	QUESTIONNAIRE	

Chapter – 1

INTRODUCTION

1.1 MEANING OF STRESS

1.2 DEFINITIONS OF STRESS

1.3 SOURCES OF STRESS

1.4 TYPES OF STRESSORS

1.5 TYPES OF STRESS

1.6 IMPACT OF STRESS ON HUMAN PERFORMANCE

1.7 MANAGEMENT OF STRESS

1.8 PRESSURE SITUATIONS

1.9 PRESSURE IN CRICKET

1.10 ATTRIBUTES OF AN UMPIRE

1.11 CRICKET TERMINOLOGY

Chapter - 1

INTRODUCTION

1.1 MEANING OF STRESS

Stress is a fact of everyday's life. When people reach out for help, they are often dealing with circumstances, situations, and stressors in their lives that leave them feeling emotionally and physically overwhelmed. Many people feel that they have very little resources or skills to deal with the high levels of stress they are experiencing.

Although we all talk about stress, it often isn't clear what stress is really about. Many people consider stress to be something that happens to them, an event such as an injury or a job loss. Others think that stress is what happens to our body, mind, and behavior in response to an event (E.g. heart pounding, anxiety, or nail biting). While stress does involve events and our response to then, these are not the most important factors. Our thoughts about the situations in which we find ourselves are the critical factor.

When something happens to us, we automatically evaluate the situation mentally. We decide if it is threatening to us, how we need to deal with the situation, and what skills we can use. If we decide that the demands of the situation outweigh the skills we have, then we label the situation as "stressful" and react with the classic "stress response." If we decide that our coping skills outweigh the demands of the situation, then we don't see it as "stressful."

Stress can come from any situation or thought that makes you feel frustrated, angry, or anxious. Everyone sees situations differently and has different coping skills. For this reason, no two people will respond exactly the same way to a given situation.

Additionally, not all situations that are labelled “stressful” are negative. The birth of a child, being promoted at work or moving to a new home may not be perceived as threatening. However, we may feel that situations are “stressful” because we don’t feel fully prepared to deal with them.

Stress is a normal part of life. In small quantities, stress is good; it can motivate you and help you become more productive. However, too much stress, or a strong response to stress can be harmful. How we perceive a stress provoking event and how we react to it determines its impact on our health. We may be motivated and invigorated by the events in our lives, or we may see some as “stressful” and respond in a manner that may have a negative effect on our physical, mental, and social well-being.

If we always respond in a negative way, our health and happiness may suffer. By under-standing ourselves and our reaction to stress-provoking situations, we can learn to handle stress more effectively. In the most accurate meaning, stress management is not about learning how to avoid or escape the pressures and turbulence of modern living; it is about learning to appreciate how the body reacts to these pressures, and about learning how to develop skills which enhance the body’s adjustment. To learn stress management is to learn about the mind-body connection and to the degree to which we can control our health in a positive sense.

1.2 DEFINITIONS OF STRESS

R. S. Schuler “Stress is a dynamic condition in which an individual is confronted with an opportunity, constraints or demand related to what he desires & for which the outcome is perceived to the both uncertain & important.”

Fred Luthans “Stress is an adaptive response to an external situation that result in physical, psychological & or behavioural deviations for organizational Participation.”

Kernerman English Learner’s Dictionary defines Stress as “The worry experienced by a person in particular circumstances or the state of anxiety caused by this.”

Bowman "Stress is the body's automatic response to any physical or mental demand placed upon it. When pressures are threatening, the body rushes to supply protection by turning on 'the juices' and preparing to defend itself. It's the 'flight or fight' response in action."

Bernik "Stress designates the aggression itself leading to discomfort, or the consequences of it. It is our organism's response to a challenge, be it right or wrong."

Levi "Stress is cost by a multitude of demands (Stressors) such an inadequate fit between what we need and what we capable of, and what our environment offers and what it demands of us."

Humphrey "In essence, stress can be considered as "any factor, acting internally or externally, that makes it difficult to adapt and that induces increased effort on the part of the person to maintain a state of equilibrium both internally and with the external environment."

1.3 SOURCES OF STRESS

The Environment – the environment can bombard you with intense and competing demands to adjust. Examples of environmental stressors include weather, noise, crowding, pollution, traffic, unsafe and substandard housing, and crime.

Social Stressors – we can experience multiple stressors arising from the demands of the different social roles we occupy, such as parent, spouse, caregiver, and employee. Some examples of social stressors include deadlines, financial problems, job interviews, presentations, disagreements, demands for your time and attention, loss of a loved one, divorce, and co-parenting.

Physiological – Situations and circumstances affecting our body can be experienced as physiological stressors. Examples of physiological stressors include rapid growth of adolescence, menopause, illness, aging, giving birth, accidents, lack of exercise, poor nutrition, and sleep disturbances.

Thoughts – Your brain interprets and perceives situations as stressful, difficult, painful, or pleasant. Some situations in life are stress provoking, but it is our thoughts that determine whether they are a problem for us.

1.4 TYPES OF STRESSORS

Situations that are considered stress provoking are known as stressors. Stress is not always a bad thing. Stress is simply the body's response to changes that create taxing demands. Many professionals suggest that there is a difference between what we perceive as positive stress, and distress, which refers to negative stress. In daily life, we often use the term "stress" to describe negative situations. This leads many people to believe that all stress is bad for you, which is not true.

Positive Stress has the following characteristics:

- Motivates, focuses energy
- Is short-term
- Is perceived as within our coping abilities
- Feels exciting
- Improves performance

In contrast, **Negative Stress** has the following characteristics:

- Causes anxiety or concern
- Can be short or long-term
- Is perceived as outside of our coping abilities
- Feels unpleasant
- Decreases performance
- Can lead to mental and physical problems

It is somewhat hard to categorize stressors into objective lists of those that cause positive stress and those that cause negative stress, because different people will have different perceptions and reactions to particular situations. However, by generalizing, we can com-pile a list of stressors that are typically experienced as negative or positive to most people, most of the time.

Examples of **Positive Personal Stressors** might include:

- Receiving a promotion at work
- Starting a new job
- Marriage or commitment ceremony
- Buying a home
- Having a child
- Moving
- Taking or planning a vacation
- Holiday seasons
- Retiring
- Taking educational classes or learning a new hobby

Examples of **Negative Personal Stressors** can include:

- The death of a partner
- Filing for divorce
- Losing contact with loved ones
- The death of a family member
- Hospitalization (oneself or a family member)
- Injury or illness (oneself or a family member)
- Being abused or neglected
- Separation from a spouse or committed relationship partner
- Conflict in interpersonal relationships
- Bankruptcy/money problems
- Unemployment
- Sleep problems
- Children's problems at school
- Legal problems

- Inadequate or substandard housing
- Excessive job demands
- Job insecurity
- Conflicts with team mates and supervisors
- Lack of training necessary to do a job
- Making presentations in front of colleagues or clients
- Unproductive and time-consuming meetings
- Commuting and travel schedules

The following lists some of the common warning signs and symptoms of stress. The more signs and symptoms you notice in yourself, the closer you might be to feeling stress overload.

Cognitive Symptoms

- Memory problems
- Inability or difficulty concentrating
- Poor judgment
- Seeing only the negative
- Anxious, racing, or ruminating thoughts
- Constant worrying

Emotional Symptoms

- Moodiness
- Irritability or short-tempered
- Agitation, inability to relax
- Feeling overwhelmed
- Sense of loneliness or isolation
- Depression or general unhappiness

Physical Symptoms

- Aches and pains, muscle tension
- Diarrhea or constipation
- Nausea, dizziness, or butterflies in the stomach
- Chest pain or rapid heartbeat
- Loss of sex drive
- Frequent colds
- Shallow breathing and sweating

Behavioral Symptoms

- Eating more or less
- Sleeping too much or too little
- Isolating yourself from others
- Procrastinating or neglecting responsibilities
- Using alcohol, cigarettes, or drugs to relax
- Nervous habits (nail biting, pacing)

Keep in mind that the signs and symptoms of stress also can be caused by other psycho-logical and medical problems. If you're experiencing any of the warning signs of stress, it's important to see a doctor for an evaluation. Your doctor can help you determine whether or not your symptoms are stress related.

1.5 TYPES OF STRESS

Every one of us would probably experience different type of stress at one time or another. It could be some personal stress arising in the work place, strained family relationships with teenage children, emotional stress caused by financial problems, post traumatic disorders after an unhappy event like an accident or even disorders after an unhappy event like an accident or even feeling stress when you are on holiday.

All these various types of stress and many more can however be group into four main types of stress.

1. **Eustress:** Have you ever felt the thrill and excited feeling while watching a horror movie, the feeling of excitement when you won a game or race, the excitement when you bought your first car, the accomplishment of a challenge, the proud feeling of being a first parent, the happy feeling of being loved. These feelings sure make us feel good and they are the so called “good stress” or “positive stress”. They are able to exert a healthy effect on you. It gives one a feeling of fulfillment and also makes one excited about life. Unfortunately, it is a type of stress that only occurs for a short period of time. Eustress is also often called the curative stress because it gives a person the ability to generate the best performance or maximum output.

2. **Distress:** Just like everything in life, when there are good or positive stress, there are also “Bad” or “Negative stress”. This type of stress is the opposite of Eustress. It is a stress disorder that is caused by adverse events and it often influences a person’s ability to cope.\

   Distress can be further classified as acute stress and chronic stress. Acute stress is short lived while chronic stress is usually prolonged in nature.

3. **Hyper Stress:** When a person is pushed beyond what he or she can handle, they will experience what we called hyper stress. It results from being overloaded or overworked. It's like being stressed out.

4. **Hypo Stress:** Hypo stress stands in direct opposite to hyper stress that is because hypo stress is one of those types of stress experienced by a person who is constantly bored. The effect of hypo stress is feeling of restlessness and a lack of inspiration.

1.6 IMPACT OF STRESS ON HUMAN PERFORMANCE

Blackwell (1998) stated that stress shows itself in a number of ways. For instance an individual who is experiencing a high level of stress may develop high blood pressure, ulcers and the like. These can be grouped under three general categories; Physiological, Psychological and Behavioural symptoms.

1. **Psychological Symptoms and Effects:** These are the major consequences of stress. Then mental health of employees is threatened by high levels of stress and poor mental health. Unlike the Physical symptoms, Psychological symptoms could also cause employees work performance to deteriorate. Anger, anxiety, depression, nervousness, irritability, aggressiveness, and boredom results in low employee performance, declines in self-esteem, resentment of supervision, inability to concentrate, trouble in making decision and job dissatisfaction. Also the psychological symptoms of stress can lead to burnout. Job burnout is a prolonged withdrawal from work which makes the sufferer devalue his work and sees it as a source of dissatisfaction.

2. **Behavioural Symptoms and Effects:** Behavioural signs of stress include eating more or less, cigarette smoking, used of alcohol and drugs, rapid speech pattern nervous fidgeting which leads to absenteeism from work, happing from job to job and causes performance to deteriorate.

3. **Physiological Symptoms and Effects:** These are changes in the metabolism that accompany stressors. The symptoms include increased heart rate, blood pressure etc. With this, the wear and tear on the body becomes noticeable and problematic. The effects of this are back pains, migraine headaches, insomnia, heart disease, hypertension, diabetes and even cancer which affect employees' productivity.

1.7 MANAGEMENT OF STRESS

According to **Robbins (2004)**, stress can be managed in two approaches; the individual and organizational approaches.

He said the **individual approach** include exercise. That is the employees can manage stress by walking, riding bicycles, attending aerobic classes, practicing yoga, jogging, swimming, playing tennis and swatting squash balls. Most runners and fitness addicts admit that, it is very hard to focus on job stress when one is trying to complete vigorous workout.

Again, he said individuals can manage stress through relaxation. This is because, when employees relax the response for stress will be reserved in the human mind-body system. Individuals can reduce tension through relaxation techniques such as

meditation, hypnosis and biofeedback. The objective is to reach a state of deep relaxation in which the employee feels physically relaxed, somewhat detached from the immediate environment and detached from body sensations. Relaxation exercises reduce employee's heart rates, blood pressure and other physiological indicators of stress.

Another way to reduce stress individually is opening up. A healthy response to this moments or periods of personal crisis is to confide in others. Employees may not find it easy to discuss difficult personal traumas with others, but self disclosure can reduce the level of stress and give them more positive outlook on life. Also honest entries on a regular basis in a diary may accomplish the same thing.

He also went further to explain the **organization approach** to stress management which include training programmes for employees, ensuring effective upward and downward communication in the organization, improvement in personnel policies such as (good welfare packages, incentives, pension schemes), good job design, improvement in the physical work environment, and also management should provide technical support to employees.

In the same view, **Lucey (1994)** said stress can be managed in an organization through increasing employees autonomy in their job, increase or decrease personal responsibility, allow more flexible working hours – by the used of flexi – time, job rotation and transfers, provide better working conditions, including social/fitness clubs etc, and institute a counselling service.

Also **Claude and Cole (1992)** suggested that in order to manage work stress effectively, management should consider doing the following:

- Provide work which allows some personal choice in the way it is carried out and the sequence in which it is carried out.
- Encourage employees participation in decisions which affect them.
- Set clear goals and targets and provide adequate feedback on performance.
- Induct new recruits thoroughly.
- Provide training as an on-going updating process.
- Provide consistent rewards for effective output.

- Review performance gaps at the time of occurrence.
- Provide opportunities for employees to try new duties and different tasks.
- Design job to have even work pressures.
- Encourage group working procedures and friendly work relations.
- Provide secure and fair personnel practices.
- Ensure work environment is free of hazards.

This implies that if these approaches and measures outlined above are carefully implemented it could go a long way to minimize the level of stress on employees.

From the beginning to the end of this chapter, we found the existence of work stress, it causes and effects. The evidence indicates that stress can be either a positive or a negative influence on employees output. For many people, low to moderate amount of stress enable them to perform their jobs better by increasing the work intensity, alertness and ability to react. However, a high level of stress, or even a moderate amount sustained over a long period, eventually takes its toll on employees and pressure tends to decrease general performance and job satisfaction.

1.8 PRESSURE SITUATIONS

Pressure usually refers to the feelings an individual has about performing in a sporting situation. It is often experienced as a compelling or constraining influence on the mind, or an urgent demand that must be met. Pressure is a feeling that is created by ourselves, when we react to particular events or situations.

Pressure isn't necessarily bad – it can enhance motivation, concentration and enjoyment. That feeling of stress that often accompanies a pressure situation can help keep you on your toes, ready to rise to a challenge.

Where does pressure come from?

Pressure can come from a variety of internal and external sources. For example:

- Parental expectations to perform

- Other people's expectations (especially team mates and coaches, but also from other people such as friends, relatives, partners)
- Press and media expectations (newspaper articles, club newsletters etc)
- Preparation for competition (how well prepared the athletes feel, and how ready they feel on the day)
- Crowd or audience effects (their reactions to performance, either supportive or derisive)
- Importance of this performance (selection, one last medal and then retirement)
- Anticipated contest difficulty or importance (ex:- local club game v/s finals at nationals)
- Officials' and organizers actions (the way the people in charge affect the athletes)
- Readiness to perform (fully fit, mentally ready, injury-free etc)
- Timing
- Other areas of life that compete for athletes' attention (school, work, relationships etc)
- Lack of self-confidence (doubting their ability to perform)
- Implementing a new technique in competition
- Repeated errors

Pressure is an illusion!

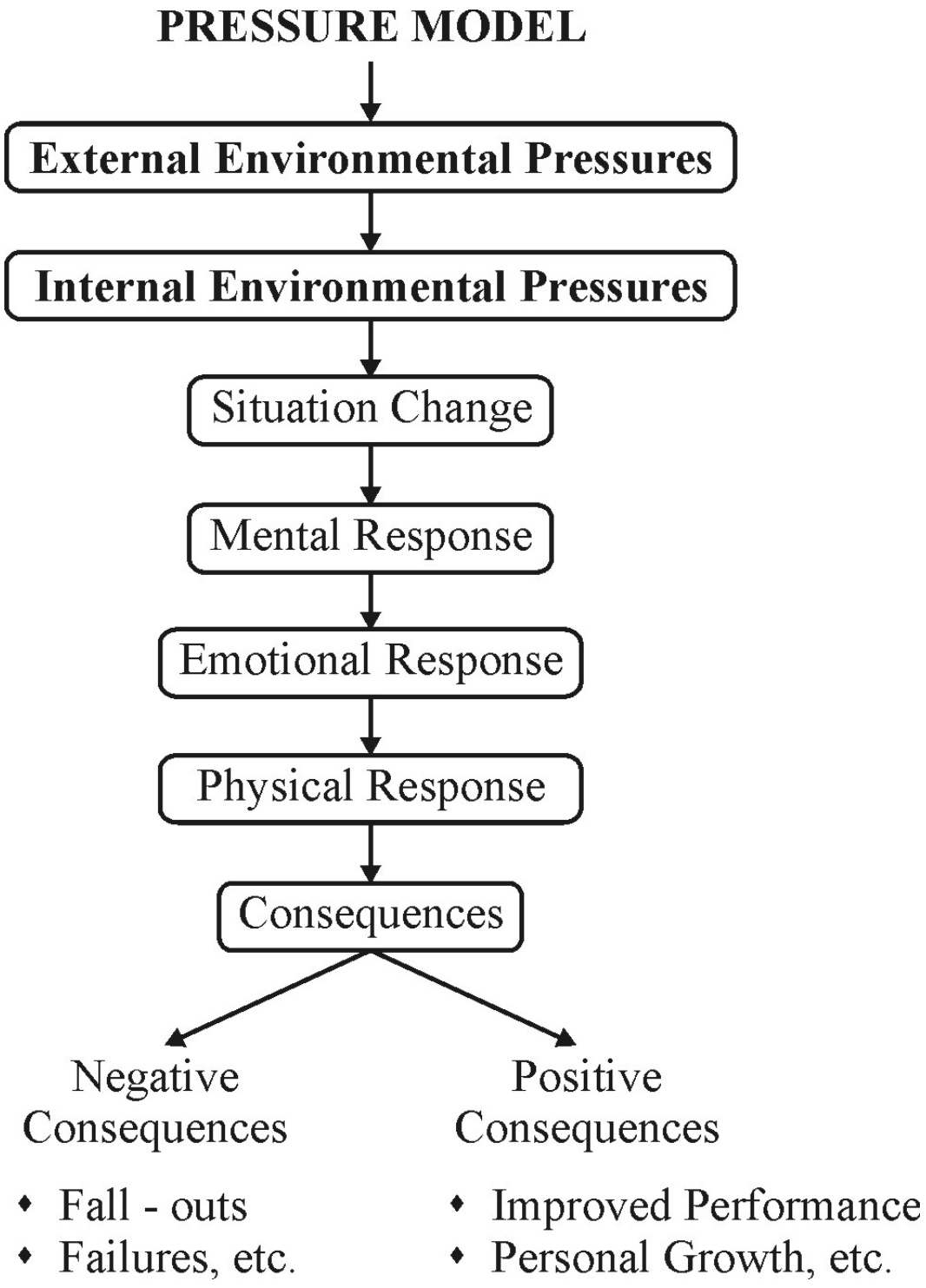
The most important concept in dealing with pressure is to start with the realization that there is no such thing as competition pressure, except what you make of it in your mind. Pressure isn't something that happens to us – it is something that is manufactured by our own thinking. Aside from the physical pressure exerted on one opponent by another on the field, pressure in the competitive context isn't real

– it doesn't exist. It doesn't have a form, a color, a smell. Pressure is simply how we perceive the situation we are in. Athletes need to learn this, because once they understand that pressure is something they create, and then they also understand that pressure is therefore something they can control. By controlling their responses to pressure situations, athletes learn to take them in their stride.

Controlling responses to pressure

- Pressure only exists if you are concerned about the outcome. Playing a scratch match and playing in the national finals is exactly the same thing! It's still the same ball, the same strategies, the same rules – nothing has changed in terms of how you play the game. So approach pressure situations as though they are practice matches. Train your mind to stay in the present and let the outcome take care of itself.
- Learn to practice at the same level you compete at. Your best possibly match play can only ever be as good as your best possible training performance. People labor under the illusion that all those little successful moments in training will somehow combine together on match day to bring about higher levels of performance. This just isn't true, so learn to train as you mean to play.
- You must practice pressure situations in training, so they become normal and easy to handle.
- Ensure you have good preparation leading up to competition.
- Pressure situations require enhanced communication – practice this in training.
- Never, ever give in – maintain commitment and desire in the face of adversity.
- Learn to focus on the right thing at the right time, regardless of what is going on around you.

- Some people will benefit from engaging in some relaxation exercises prior to competing, to help them to feel calm and focused.
- Practice mindfulness (no negative thoughts... I mean, think positively!).
- Share how you feel with others – talking about how you feel can help you to deal with it. However be mindful of who you choose to talk to, you don't want to put ideas of pressure into your teammates' heads!
- Strive for excellence, not perfection. It is okay to make mistakes under pressure, just as it is alright to make mistakes in training – so long as you recover well and learn from them.
- Focus on technique or strategy. Pay attention to the things you have practiced – they are familiar so they won't feel pressured.
- Have good error recovery strategies – people tend to make more errors when they perceive they are under pressure, so you need to have a good strategy to deal with them without them affecting your confidence.
- Remember, it's not about your feelings; it's about your actions. Take the focus of how you feel, by putting your focus onto what you will do. Your actions affect your emotions so go through the right actions (pretend if you must) and you will feel better.
- Identify the actions/skills that suffer most when you are in a pressure situation. Put extra time into practicing those skills so that you feel confident in them in any circumstance. The appropriate action must be practiced to the level of a conditioned response (it must be automatic).
- Increased fitness helps you deal with pressure. Also make sure you train sometimes when you're fatigued.
- Maintain your belief in yourself, no matter what the situation.


PRESSURE MODEL
External Environmental Pressures
Internal Environmental Pressures
Situation Change
Mental Response
Emotional Response
Physical Response
Consequences
Negative Consequences
Fall - outs
Failures, etc.
Positive Consequences
Improved Performance
Personal Growth, etc.

1.9 PRESSURE IN CRICKET

It's extremely difficult to play cricket while you are asleep; you need to be awake and alert. In other words, you need to be sufficiently aroused to perform at your best. But if you become too aroused, your performance will suffer and you'll start to make mistakes.

Cricketers often allow their arousal level to become too high when they are in pressure situations, such as near the end of a close match. At times like these, their muscles become tense, they have difficulty focusing on the task at hand, and tempers sometimes flare. And when this happens, winning positions often turn into losing positions.

Learning to control your arousal level will help you to retain your competitive advantage. If you can remain calm while your opposition is stressed, you will give yourself a much better chance of winning. But before we look at how to remain calm, let's take a quick look at how you create your own arousal level.

Stress-Reducing Ideas

When you add negative thoughts like these to a pressure situation, you significantly increase your arousal level, and you increase the likelihood that you will make a mistake. On the other hand, you can keep your arousal level under control by reminding yourself of the following ideas:

1. While it is desirable to do well, it is not compulsory. When you tell yourself that you must do well, you place added pressure on yourself. It is far more effective to remind yourself that you want to do well, but that you don't have to succeed. By changing the demand that you do well into a preference, you give yourself every chance of remaining calm and retaining your competitive advantage.
2. Getting out cheaply or losing an important or close match can be a real pain. However, it is not the end of the world. You create extra stress for yourself when you believe that failure is terrible or awful. These words exaggerate the seriousness of the situation and distract you from the task at hand. Learn to replace these words with more accurate ones such as disappointing or unfortunate.

3. As noted in the paragraph above, getting out cheaply, or losing an important or close match can be a real pain, but it's not fatal. Neither are close finishes fatal. You'll be surprised at how empowering it can be to say the following sentence to yourself: "I don't like this situation but it won't kill me". This simple, yet powerful sentence can relieve you of considerable pressure, provided you convince yourself that you actually believe it.

4. Being a better cricketer won't make you a better human being. Similarly, a poor performance does not make you a less worthy individual. Learn to separate your performance from your identity. By all means rate how well you play, but don't use that to rate yourself as a person. Avoid calling yourself names such as 'Loser', or 'Klutz' etc. These labels are a symptom of self-rating; they destroy your self-confidence and add extra pressure.

Relaxation Technique

When you carry these four ideas into a pressure situation, you give yourself every chance of remaining calm. It also helps if you are prepared with a quick relaxation technique such as the following:

- Imagine yourself smiling, feel the muscles around your eyes relaxing.
- Take a long, slow, deep breath in.
- As you breathe out, say the word 'smile' to yourself.
- Let your whole body go limp.

We saw in Part 2 that the skill of concentration that you learned provides you with an effective method of stress management. You can reduce the pressure on yourself by focusing on what you are doing, not on how well you are doing it.

To conclude we can say that to reduce the pressure that you put on yourself:

1. Focus on what you are doing.
2. Remind yourself of the four stress-reducing attitudes.
3. Apply a quick relaxation technique.

These three skills will see you remaining calm in pressure situations and will give you an advantage over your opposition.

1.10 ATTRIBUTES OF AN UMPIRE

- **A -** Attention to detail and a good attitude towards players are the principle requirements of every umpire.
- **T -** During a match, umpires will be subject to scrutiny of their on-field decisions. Scorers have their pressure too. An even temperament is essential.
- **T -** A tidy appearance. When they arrive at a match venue and during the day, umpires must always look the part. A tidy appearance suggests a tidy mind. Scorers must maintain a tidy scorebook free from errors.
- **R -** Respect for one and for others. The ability to have instant recall of the Laws and of the Regulations. Without respect, our participation is meaningless.
- **I -** Intelligence and integrity. These two epitomize the highest ideals that every individual should have. Without them an umpire will never command the respect of cricketers.
- **B -** A healthy and fit body. The rigors of umpiring can be demanding. An easily maintained walking programme will keep you mentally and physically fit.
- **U -** The ability to make unbiased decisions irrespective of who the players or the teams are. The word umpire freely translated from the Latin Nompere means Man above all.
- **T -** As most cricket matches are played to time, time keeping becomes an important element to a match. Umpires must have the ability to mentally turn-on and turn-off throughout the day.
- **E -** Good eyesight is imperative with or without spectacles. Enthusiasm for our sport and enthusiasm to do just the best you can and the will to pass examinations that may lead to higher honors.
- **S -** Study of the Laws and Regulations will, in time, become part of your everyday thinking. The ability to handle the stresses of the day. The ability to work with the scorers, without whom the result would never be known.

1.11 CRICKET TERMINOLOGY

- **Appeal -** A claim that a batter has been put out, made by the person making the play. (Umpires will not signal some "outs" unless appealed to, by the appropriate player).
- **Bat-and-Pad Catch -** A hit that hits a batter's leg (pad) and is caught by a fielder before it touches the ground. A clear "out".
- **Batting Average -** The average number of earned runs scored by a batsman, defined as total runs scored divided by **number of times** the batter was "out" **bowled** an "out" which is achieved by a pitch that hits the batsman sticks, whether or not touched by the bat.
- **Bowling Average -** The (average) number of earned runs scored off a bowler every "out" he takes.
- **Break -** A change in direction of a pitch.
- **Bumper -** a ball that is bounced high enough to hit a batsman head or shoulders; cricket's equivalent of the "beanball".
- **Bye(s) -** Run(s) scored on "wild pitches". *i.e.* when the ball goes past the wicket-keeper without having been touched by the batter, and runs can be scored. The runs are added to the team total as "extras", but not credited to batsman... nor charged to bowlers.
- **Caught (out) -** An "out" resulting from a hit caught by a fielder in the air, *i.e.* before touching the ground, like baseball's "pop fly".
- **Chinaman -** A left-hander's googly (see definition of 'googly', below)....*i.e.*, a pitch that looks as if it could break into a right-handed batter on the bounce, but breaks away instead. So called because the first person to have delivered such a pitch was of Chinese extraction, in the West Indies!
- **Cover Drive -** A drive that is hit away from the batsman body.
- **Cutter, leg- or off -** A fast pitch where a slashing arm action rather than wrist or finger spin is used to get a slight break off the bounce....depending on the direction of the break, it can be called a leg-cutter or off-cutter.

- **Declaration -** In unlimited-over games, a decision by the captain of a batting side to stop batting and put the other side in to bat...usually done to allow enough time to win a game.
- **Double Century -** An individual score of 200 runs or more by a batsman.
- **Draw -** In an unlimited-over's game of one OR two innings, a situation where neither side wins....the first team's total is not surpassed, but the innings are not completed. (No draws are allowed in limited-over games).
- **Drive** - A hit executed by the batsman in whom he swings the bat in a long arc, much like teeing off at golf, and sends the ball in one of several possible directions.
- **Duck -** A zero individual score, "awarded" to a batter who is "out" without scoring a single earned run.
- **Economy Rate -** The average number of earned runs scored off a bowler per over that he bowls/pitches....a measure of pitching efficiency.
- **Follow On -** In a full two-innings game, where the team batting second is asked to bat again because its first innings total is far behind that of the other team.
- **Four or Boundary -** a line drive that reaches the fence, counting as four runs.
- **Full Toss -** A pitch that reaches the batter without a bounce..
- **Good Length, or Good-Length Delivery -** A pitch which bounces just outside the batsman maximum forward reach (i.e. 3 to 5 yards from the wickets, depending upon batter's height)....these pitches are the hardest for a batsman to hit, because he cannot decide whether to step **forward** anyway, or if he should step **back** and give himself the maximum distance from the "bounce", to see what the ball might be doing.
- **Googly -** A pitch which is thrown with ball's "screwball" grip but reverse finger spin... to look like a leg-break that should move across and away from the batter, but actually moves in the opposite direction, *i.e.* into the batsman like an off-break , after it bounces.

- **Half Century -** An individual score of 50 runs or more by a batsman.
- **Hat Trick -** Getting three batsman "out" in three successive balls...so called because in the 17th century, a bowler who accomplished the feat was rewarded by an immediate bonus, collected by passing a hat among gathered spectators.
- **Hook -** A hit that is executed by the batsman swinging his bat around his body, and following up with a complete body turn, usually pivoting on one foot...works best on a pitch that is moving away from the batter on his "leg" side.
- **Innings -** The total number of runs scored by a team during its time at bat.
- **Innings Victory -** In a full two-innings game, a victory where one team scores more runs in a single innings than its opponent does in two.
- **In Swing** - A pitch that moves into a batsman in the air.
- **Late Cut -** A hit that is executed by a batsman by deflecting the pitch in a slicing motion, just before it reaches the wicket keeper or catcher.
- **LBW (leg before wicket) -** A ball which is intercepted by a batsman body before it hits the sticks...an umpire will rule the batter "out" if he is sure that the sticks would have been hit.
- **Leg Break -** A pitch that is thrown almost like baseball's "screwball", and breaks into a batsman body off the bounce, from the batsman "leg" side.
- **Leg Bye -** Run(s) scored when the ball hits the batsman legs, and goes off into the field. The runs are added to the team total as "extras", but not credited to batsman... nor charged to bowlers. NOTE: leg-byes are **not** allowed when there is an Lbw "out", or if the ball has been intentionally kicked or deflected by the batter.
- **Leg Glance -** A hit consisting of a deflection around the batsman legs, of a pitch past the wicket keeper and behind him.

- **Leg side -** That half of the field, as bisected by a line joining the wickets and extended both ways, where the batter's legs are placed. Also called "on side.
- **Limited and Unlimited Over games -** "Limited Over" games are those where each team is allowed to bat only for a designated number of over's. Typically, 30, 40, 45 or 50 overs are set as the limit for each team's innings. "Unlimited over Games" are those where no over restriction is placed on a team's innings.
- **Lofted drive -** A drive where the ball is lofted (hit in the air) to clear infield or midfield positions.
- **Long hop or short pitch -** A pitch that is bounced far away from the batsman (at least 7 to 10 yards away), so it reaches the batsman after a long hop, or bounce.
- **Maiden over -** A set of six balls delivered by a bowler in which no earned runs are scored.
- **Night Watchman -** In matches/games lasting 2 or more days, a lower order batter who is sent in to "stall for time" late in the evening, so the more experienced batters can bat the following day.
- **No-Ball** - A ball delivered by a bowler who has "crossed the line" he is supposed to pitch from, or violated some other rule. When an umpire calls "no ball", the batsman cannot be out except when running and gets tagged.
- **ODI -** A One-Day International, an official limited-over cricket game (typically 50 over's per team) where the contenders are accredited national teams.
- **Off-Break -** A pitch which, after bouncing, "breaks" into the batter's body from his off side.
- **Off-Drive -** A drive which is executed at about a 45-degree angle to the line of the wickets, on the batsman off side.

- **Off-Side -** That half of the field, as bisected by a line joining the wickets and extended both ways, which is in front of and away from the batter, *i.e.* the other half of the field (as opposed to his "leg" or "on" side).
- **On Drive -** A drive which is executed at about a 45-degree angle to the line of the wickets, on the batter's on or leg side.
- **Opening Batsman -** One of the first two batsmen sent in to start a team's innings.
- **Out Swing -** A pitch which moves down and away from the batsman in the air.
- **Over -** The set of six pitches delivered from one wicket to the other by a pitcher.
- **Over Pitched Delivery -** A ball which is pitched so far forward that the batsman can reach the point where it bounced by a forward step.
- **Partnership -** Used to indicate the number of runs scored by both batsmen on base, between one "out" and the **next** one... for example, a "partnership of 100 runs for the **third** wicket" would mean that 100 runs were scored by both batters between the second and third "out".
- **Pull** - A hit executed by a batsman "pulling" an off-side pitch around his body towards his other (*i.e.* on, or leg) side.
- **Run -** Safe crossing(s) from wicket to wicket, by a batsmanr (and his partner) after hitting (earned runs), or off a fielding error (like stolen bases) (extras). Each crossing scores one run to the batting team.
- **Run Out -** An "out" which consists of the fielder striking the wickets towards which a runner is headed, before he gets to it.
- **Run Rate -** The rate at which runs are being scored per over, in an innings.
- **Seamer -** A faster pitch delivered with the seam straight, and which can "slide" in the air or "break" unexpectedly.

- **Sixer -** A hit that flies over the fence without a bounce, scoring six runs.
- **Spectacles -** A double "duck", *i.e.* a batter who is out for zero runs in both innings of a two-inning cricket game.
- **Spin -** A kind of pitch, usually delivered at slow speed, where fingers or/and wrist are used to impart spin to the ball to achieve "breaks", so, spin bowler = a pitcher who uses spin.
- **Square Cut -** A hit that looks like a slash across the body, used by batsman to hit the ball "square" to his batting position...in baseball terms, like a hit towards first base by a right-handed batsman, or third base by a left-hander.
- **Strike Rate -** The number of earned runs scored by a batsman per ball actually faced by him.
- **Stumped -** An "out" which is made by the wicket-keeper, catching the batsman out of his ground when he is trying to hit...and misses.
- **Sweep -** A hit executed towards his leg or on side, by "sweeping" his bat around his body.
- **Tail-ender -** The last two or three batsman in a team's batting order. The "tail wags" if these batters manage to score a significant amount of runs!
- **Take Guard -** What a batter does when he first goes in to bat, *i.e.* he asks the umpire for guidance, and marks his position where he wishes to stand when batting.
- **Test Match -** An official two-inning match between two accredited national teams, usually spread over 5 playing days (30 hours).
- **Ton or Century -** An individual score of 100 runs or more by a batsman.
- **Triple Century -** An individual score of 300 runs or more by a batsman.
- **Umpire -** The one who gives the decision and the controlling authority of the match.

- **Wicket(s) -** The terms "wicket", and "wickets", are used in different and important ways. **"THE wicket"** is the strip of field between the two sets of sticks marking the bases, as in "sticky wicket" (see definition).**"A wicket"**, used as singular or plural, is a count of the number of "outs" in an inning, so "85 for 6 wickets" means 85 runs scored, for 6 "outs". **"THE wickets"**, always used in plural, are the set of three sticks or "stumps" marking the base, as in "He stood in front of the wickets". It helps to know the context in which the word is being used!
- **Wicket Keeper -** The position equivalent to baseball's "catcher".
- **Wicket Maiden -** A "maiden over" where one or more "outs" such as "bowled" or "caught out" also occur.
- **Wide Ball -** A pitch that travels too far from the batter for him to have a reasonable chance of hitting it. The pitcher has to throw the pitch again, and a penalty run is scored for the batting team.
- **Yorker -** An "over pitch" delivery which is thrown so far forward as to bounce right under the batsman bats, and beat him.

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Chapter – 2

RESEARCH METHODOLOGY

2.1 REVIEW OF RELEVANCE LITERATURE

2.2 RESEARCH GAP

2.3 OBJECTIVE OF THE STUDY

2.4 HYPOTHESIS

2.5 RATIONALE, NEED AND SCOPE OF THE STUDY

2.6 SAMPLING PLAN

2.7 METHODS OF ANALYSIS

2.8 CONSTRAINTS OF THE STUDY

Chapter - 2

RESEARCH METHODOLOGY

2.1 REVIEW OF RELEVANCE LITERATURE

The review of literature will reveal what research, explorations others have done and how other have dealt with similar and related research problems. Review of literature is also helpful in developing expertise in the areas toward identifying what contributions can be made and for developing and appropriate research design. While reviewing the literature it is not necessary to read each and every word of each and every reference only relevant portions of the book, article etc. should be carefully read and notes of important portions should be taken into forms of direct quotation, paragraphing or summary.

The process of Review of literature is reading, analyzing, evaluating and summarizing scholarly materials about a specific topic. The result of literature review may be compiled in a report of they may serve as part of a research article, thesis or grant proposal.

A literature review is a critical and in depth evaluation of previous research. It is a summary and synopsis of a particular area of research, allowing anybody reading the paper to establish why we are pursuing this particular research progress. A good literature review expands upon the reasons behind selecting a particular research question.

It is not a collection of quotes and paraphrasing from other source. A good literature review should also have some evaluation of the quality and findings of the research.

Importance of Review of Literature

- To provide the reader with an up to date account and discussion of the research findings in a particular topic.

- To be able to detect conflicting points of view expressed by different authors
- Basis of forthcoming research area.
- We can also be able to discuss relevant research carried out in the same topic.
- To provide a summary of research areas.
- To evaluate the quality and methodology of documents.

Reviews

1. **Vathsala Wickramsinghe (2012) "Supervisor support as a moderator between work schedule flexibility and job stress- some empirical evidence from Sri Lanka":-**

- **Purpose -** The purpose of this study was to examine the moderating effect of supervisor support on the relationship between work schedule flexibility and job stress.
- **Design/methodology/approach** - For the study a survey methodology was used and 232 software developers attached to offshore outsourced software development firms responded.
- **Findings** - It was found that supervisor support moderates the relationship between work schedule flexibility and job stress.
- **Originality/value** - It is expected that the findings of this study will provide useful information for both practitioners and academics to better understand the nature of strategies to be adopted in mitigating job stress.

2. **Seth Serxner, Angela Alberti, Sarah Weinberger (2012) "Medical Cost Savings for Participants and Non-participants in Health Risk Assessments, Lifestyle Management, Disease Management, Depression Management, and Nurseline in a Large Financial Services Corporation. American Journal of Health Promotion":-**

- **Purpose -** To compare changes in medical costs between participants and non-participants in five different health and productivity management (HPM) programs.

- **Design -** Quasi-experimental pre/post intervention study.
- **Setting -** A large financial services corporation.
- **Subjects –** A cohort population of employees enrolled in medical plans (n = 49,763).
- **Intervention -** A comprehensive HPM program, which addressed health risks, acute and chronic conditions, and psychosocial disorders from 2005 to 2007. Incentives were used to encourage health risk assessment participation in years 2 and 3.
- **Measures -** Program participation and medical claims data were collected for members at the end of each program year to assess the change in total costs from the baseline period.
- **Analysis -** Multivariate analyses for participation categories were conducted comparing baseline versus program year cost differences, controlling for demographics.
- **Results -** All participation categories yielded a lower cost increase compared to nonparticipation and a positive return on investment (ROI) for years 2 and 3, resulting in a 2.45 **:** 1 ROI for the combined program years.
- **Conclusion -** A business case for the Management Standards for stress. Technical Report. Health and Safety Executive, Sudbury. Medical cost savings exceeded program costs in a wide variety of health and productivity management programs by the second year.

3. Jiun–Hung Lin (2012) "Develop a commercial aircraft pilot job stress model through an experience ability perspective: considering the work experience":-

Since commercial aircraft pilots bear the duty of flight safety, their job stress is higher than other occupations. Once the sources of job stress could not be drained off, the stress will be accumulated continually. The unbearable stress will injure the commercial pilots in aspects of physiology and psychology and have a critical

impact on their flying ability. Therefore, researching on job stress to improve flight safety is a critical path to increase the competitiveness of airlines. This research introduces the concept of work experience background characteristics (WEBC) and constructs a commercial pilots' job stress theoretical model. Linear structure relation model (LISREL) is used to validate the causality relationships of this theoretical model. The result of this research could be a theory base to improve the job stress and increase job performance of the commercial pilots by adjusting WEBC.

4. **Adil Msatfa (2012) "Stress Testing in the Aftermath of the Financial Crisis stress testing, financial crisis":-**

Recent turmoil in the capital markets has showed again the vulnerability of the international financial system and highlighted the need for efficient stress testing of financial institutions trading and lending books. In fact, the severity of current European sovereign bonds crisis is primarily attributable to its unexpected nature and a more rigorous application of stress testing could have probably contributed to reduce the repercussions of this crisis. Under these circumstances, stress testing has become a primary concern for international policy makers and regulators who are continuously working on solution to address the vulnerabilities identified. In such a context, the Basel Committee on Banking Supervision is also attempting to reinforce principles for sound stress testing in risk governance practices, and an important part of the Supervisory Review Process and the Pillar 2 requirements are related to this subject matter.

5. **Bond, Frank W., Flaxman, Paul E. and Loivette, Sharon. (2011) "A business case for the Management Standards for stress. Technical Report. Health and Safety Executive, Sudbury":-**

The aim of this report is to review the extant literature, in order to determine the extent to which effectively managing some or all of the six key sources of occupational stress, specified in the Management Standards, is associated with beneficial business outcomes. These six stressors, or working conditions, are demands, control, support, relationships, role, and change. The results of meta-analyses and literature reviews lead to the conclusion that there is at least some

high quality evidence of a business case for each stressor area, although the case is stronger for some working conditions. Evidence is greatest for control, where even intervention studies show that targeted low impact change programmes, which essentially applied the Management Standard of control, have significant, and very meaningful, effects on business outcomes. The business case appears weakest for demands. In particular, high demands only have meaningful and consistent deleterious effects on business outcomes in laboratory experiments. In actual work organisations, high demands are not a good predictor of any business outcome, except when they are accompanied by lower levels of control.

6. Afzalur Rahim (2011) "Stress, Strain, and Their Moderators: An Empirical Comparison of Entrepreneurs and Managers, Journal of Small Business Management":-

It is generally recognized by researchers that there is a positive relationship between stress and strain (strain being manifested as a variety of psychological and physical disorders). During the last 15 years, empirical studies have identified several factors that act as moderators or buffers against the deleterious effects of stress. These studies indicate that differences in personality characteristics and social support systems render some employees relatively safe from stress-induced illness and others relatively vulnerable. For example, social support is generally considered a moderator because the correlation between stress and strain is low for employees who receive high social support and this correlation is high for employees who receive low social support. The moderating variables are commonly referred to as stress-buffering resources because they are presumed to protect or buffer people from the adverse effects of stress.

7. Chris Provis (2010) "Virtuous Decision Making for Business Ethics":-

In recent years, increasing attention has been given to virtue ethics in business. Aristotle's thought is often seen as the basis of the virtue ethics tradition. For Aristotle, the idea of *phronēsis*, or 'practical wisdom', lies at the foundation of ethics. Confucian ethics has notable similarities to Aristotelian virtue ethics, and may embody some similar ideas of practical wisdom. This article considers how

ideas of moral judgment in these traditions are consistent with modern ideas about intuition in management decision making. A hypothetical case is considered where the complexity of ethical decision making in a group context illustrates the importance of intuitive, *phronēsis*-like judgment. It is then noted that both Aristotelian and Confucian virtue ethics include suggestions about support for moral decision making that are also consistent with modern theory.

8. Mustafa, Fahad (2009) "Cricket and Globalization":-

This thesis seeks to reposition sport as a subject of analysis in 'global historical' processes. It examines the diffusion of cricket in the British Empire, its appropriation by the colonies and the subsequent commercialization of the sport. It asks the question: How did an elite English sport come to be one controlled by a former colony-India? With this as the substantive question, it seeks to infer theoretical insights about the nature of global processes and cultural transfers in the 20th century. By way of conclusion, it asserts that as a result of these global processes there would be a tangible shift in the 'cultural economy' of sports from the developed nations of the west to the developing nations.

9. Jamal, Muhammad (2007) "Job stress and job performance controversy revisited: An empirical examination in two countries. Jamal, Muhammad's International Journal of Stress Management":-

This study examined the relationship between the measures of job stress and job performance among employees working in a large North American-based multinational corporation in Malaysia (N = 305) and Pakistan (N = 325). Data were collected by means of a structured questionnaire from employees on job stress and turnover intention. Job performance and absenteeism data were obtained from the company's records. In both countries, data were more supportive of the negative linear relationship between stress and performance than other types of relationships. Overall, 90% of comparisons supported the negative linear relationship, whereas a u-shaped/curvilinear relationship was supported in 10% of instances. Implications of the findings are discussed for future research.

10. Robert Conti, Jannis Angelis, Cary Cooper, Brian Faragher, Colin Gill (2006) "The effects of lean production on worker job stress":-

- **Purpose –** This empirical paper seeks to address the neglected work condition aspect of lean production (LP) implementation, specifically the relationship between LP and worker job stress.
- **Design/methodology/approach** – The Karasek job stress model was used to link shop floor practices to expected worker stress. The model incorporates the effects of job demands (physical and psychological), job control and social support. The study employs management and worker questionnaires, management interviews and structured plant tours. The response variable is total worker job stress – the sum of the physical and mental stress levels. The independent variable for the first question is the degree of lean implementation at the sites.
- **Findings –** The results are based on 1,391 worker responses at 21 sites in the four UK industry sectors. About 11 tested practices are significantly related to stress and an unexpected non-linear response of stress to lean implementation is identified. Results indicate that LP is not inherently stressful, with stress levels significantly related to management decisions in designing and operating LP systems.
- **Practical implications** – The hypotheses tests shed light on the relationships between LP practices and job stress, and reveal a significant managerial influence on stress levels. The regression model shows the scale and significant lean practices of this influence, with the work practices explaining 30 percent of job stress variations. The stress reduction and stress control opportunities identified in the study show the potential for designing and operating effective lean systems while also controlling stress levels.
- **Originality/value –** This is the first known multi-industry empirical study of the relationship of job stress to a range of lean practices and to the degree of lean implementation.

11. **Maria A. Pico-Alfonso, M. Isabel Garcia-Linares, Nuria Celda-Navarro, Concepción Blasco-Ros, Enrique Echeburúa, and Manuela Martinez (2006) "Journal of Women's Health":-**

- **Objective -** This study aimed to determine the impact of lifetime physical, psychological, and sexual intimate male partner violence (IPV) on the mental health of women, after controlling for the contribution of lifetime victimization. The comorbidity of depressive symptoms and posttraumatic stress disorder (PTSD) and their relation to state anxiety and suicide were also assessed.
- **Methods -** Physically/psychologically (n = 75) and psychologically abused women (n = 55) were compared with nonabused control women (n = 52). Information about sociodemographic characteristics, lifetime victimization, and mental health status (depressive and state anxiety symptoms, PTSD, and suicide) was obtained through face-to-face structured interviews.
- **Results -** Women exposed to physical/psychological and psychological IPV had a higher incidence and severity of depressive and anxiety symptoms, PTSD, and thoughts of suicide than control women, with no differences between the two abused groups. The concomitance of sexual violence was associated with a higher severity of depressive symptoms in both abused groups and a higher incidence of suicide attempts in the physically/psychologically abused group. The incidence of PTSD alone was very rare, and depressive symptoms were either alone or comorbid with PTSD. The severity of state anxiety was higher in abused women with depressive symptoms or comorbidity, as was the incidence of suicidal thoughts in the physically/psychologically abused group. Lifetime victimization was not a predictor of the deterioration of mental health in this study.
- **Conclusions -** These findings indicate that psychological IPV is as detrimental as physical IPV, with the exception of effects on suicidality, which emphasizes that psychological IPV should be considered a major type of violence by all professionals involved.

12. **Kylie A. Royal, Damian Farrow, Inigo Mujika, Shona L. Halson, David Pyne & Bruce Abernethy (2006) "The effects of fatigue on decision making and shooting skill performance in water polo players":-**

The aim of this study was to assess the effects of fatigue on decision making and goal shooting skill in water polo. Fourteen junior elite male players (age 17.2 ± 0.5 years; mass 84.2 ± 7.6 kg; height 1.85 ± 0.05 m) completed four sets of eight repetitions of an approximately 18 s maximal water polo specific drill. Progressively declining rest ratios for each successive set of the drill were employed to induce increasing fatigue and reflect the demands of match-play. A video-based temporally occluded decision-making task (verbalized response to various tactical situations) or goal shooting skill test (qualitative and quantitative analysis of goal shooting) was performed after each set. Heart rate, rating of perceived exertion (RPE) and blood lactate concentration were recorded. Heart rate (159 ± 12, 168 ± 13, 176 ± 12, 181 ± 12 Deats min^{-1}; $P < 0.001$) and RPE (13.1 ± 2.2, 15.5 ± 1.7, 17.3 ± 1.6, 19.1 ± 1.1; $P < 0.001$) increased with declining rest ratios. At very high fatigue, decision-making accuracy was 18.0 ± 21.8% better than at low fatigue ($P = 0.008$). Shooting accuracy and velocity were unaffected by incremental fatigue; however, skill proficiency (technique) decreased by 43 ± 24% between the pre-test and high-fatigue conditions ($P < 0.001$). In conclusion, incremental increases in fatigue differentially influenced decision making (improved) relative to the technical performance (declined), accuracy and speed of the ball (unchanged) of a water polo goal shot.

13. **Maria Vakola, Ioannis Nikolaou (2005) "Attitudes towards organizational change: What is the role of employees' stress and commitment?":-**

- **Purpose** – Occupational stress and organizational change are now widely accepted as two major issues in organizational life. The current study explores the linkage between employees' attitudes towards organizational change and two of the most significant constructs in organizational behavior; occupational stress and organizational commitment.

- **Design/Methodology/Approach –** A total of 292 participants completed ASSET, a new "Organizational Screening Tool", which, among other things, measures workplace stress and organizational commitment and a measure assessing attitudes towards organizational change.
- **Findings –** The results were in the expected direction showing negative correlations between occupational stressors and attitudes to change, indicating that highly stressed individuals demonstrate decreased commitment and increased reluctance to accept organizational change interventions. The most significant impact on attitudes to change was coming from bad work relationships emphasizing the importance of that occupational stressor on employees' attitudes towards change. The results did not support the role of organizational commitment as a moderator in the relationship between occupational stress and attitudes to change.
- **Research limitations/implications –** A limitation of the research design could be that all measures originated from the same source resulting in possible contamination from common method variance. Further, the cross-sectional research design adopted in the present study, as opposed to a longitudinal or experimental methodology, does not allow affirmative causal explanations.
- **Originality/value –** The present study showed that good and effective work relationships are very important in organizational change. Handling conflicts, building supportive work relationships and communicating effectively all contribute to the formulation of positive attitudes to change and, therefore, to the success of a change programme. In addition, organizations need to examine the extra workload which organizational change may create. Increase in workload is not only easily attributable to the change but it also makes change unattractive and problematic leading to non-supportive attitudes.

14. Sonja Treven, Vojko Potocan (2005) "Training programmes for stress management in small businesses":-

- **Purpose –** The purpose of this paper is to present: the problem of stress employees might encounter; the individual inclination to stress; the individual methods for reducing stress; and the authors' model of training for stress prevention.
- **Design/methodology/approach –** The paper uses both descriptive and analytical approaches to research and dissemination. Within the descriptive approach various methods are applied, including compilation, descriptive and comparative techniques; the analytical approach involves inductive and deductive methods.
- **Findings –** It emerges that individuals vary considerably in their ability to manage stress. Self-perception, locus of control, type A or B behavioural patterns and flexibility or rigidity, all appear to influence stress management abilities.
- **Practical implications –** Some organisations might choose to assist individuals to manage stress by providing relevant training programmemes.
- **Originality/value –** The paper develops a model of training for stress prevention. This model could be customised to the specific needs of small, medium and large organisations.

15. Greg Scott, Joseph Ciarrochi & Frank P Deane (2004) "Disadvantages of being an individualist in an individualistic culture: Idiocentrism, emotional competence, stress, and mental health":-

Based on past cross-cultural research, it was hypothesised that people who had strong individualistic values and beliefs within an individualistic culture would have smaller social support networks, lower emotional competence, lower intentions to seek help from a variety of sources, and poorer mental health. A total of 276 first-year students attending an Australian university completed an anonymous survey assessing individual differences in individualism (*i.e.*, idiocentrism), social support, emotional competence, hopelessness, depression,

and suicide ideation. As expected, idiocentrism was associated with smaller and less satisfying social support networks, less skill in managing both self and others' emotions, lower intentions to seek help from family and friends for personal and suicidal problems, and higher levels of hopelessness and suicide ideation. Thus, there appear to be social and psychological disadvantages associated with having strong individualistic values and beliefs within an individualistic culture. The implications of these findings for health promotion programs in schools and communities are discussed.

16. Douglas Paton (2003) "Stress in disaster response: a risk management approach":-

Using a risk management framework, this paper discusses an approach to conceptualising disaster stress risk that can be used to develop readiness strategies that facilitate an adaptive response to disaster stress in emergency managers. It illustrates this process by describing how incident, operational and organisational demands interact with resilience and vulnerability factors to affect stress risk during the mobilisation, response and reintegration phases of disaster response. It argues for stress risk management to be integrated with the application of the risk management paradigm to other aspects of disaster management.

17. Gary E. Bolton and Axel Ockenfels (2003) "A stress test of fairness measures in models of social utility":-

Current social utility models posit fairness as a motive for certain types of strategic behavior. The models differ, however, with respect to how fairness is measured. Distribution models measure fairness in terms of relative payoff comparisons. Reciprocal-kindness models measure fairness in terms of gifts given and gifts received. Reference points play an important role in both measures, but the reference points in reciprocal-kindness models are conditioned on the actions available to players, whereas those in distributive models are not. Data from an ultimatum game experiment that stress tests the kindness measure is consistent with the distributive measure. Data from an experiment that stress tests the distributive measure is inconsistent with the distributive measure, but moves in the direction opposite that implied by the kindness measure. A measure that combines relative payoff comparisons with a reference point conditioned on feasible actions provides a first approximation to our data.

18. Saija Kontulainen M.Sc., Harri Sievänen, Pekka Kannus, Matti Pasanen[1], Ilkka Vuori (2002) "Effect of Long-Term Impact-Loading on Mass, Size, and Estimated Strength of Humerus and Radius of Female Racquet-Sports Players: A Peripheral Quantitative Computed Tomography Study Between Young and Old Starters and Controls:-

Bone characteristics of the humeral shaft and distal radius were measured from 64 female tennis and squash players and their 27 age-, height-, and weight-matched controls with peripheral quantitative tomography (pQCT) and DXA. The players were divided into two groups according to the starting age of their tennis or squash training (either before or after menarche) to examine the possible differences in the loading-induced changes in bone structure and volumetric density. The used pQCT variables were bone mineral content (BMC), total cross-sectional area (TotA) of bone, cross-sectional area of the marrow cavity (CavA) and that of the cortical bone (CoA), cortical wall thickness (CWT), volumetric density of the cortical bone (CoD) and trabecular bone (TrD), and torsional bone strength index (BSIt) for the shaft, and compressional bone strength index (BSIc) for the bone end. These bone strength indices were compared with the DXA-derived areal bone mineral density (aBMD) to assess how well the latter represents the effect of mechanical loading on apparent bone strength. At the humeral shaft, the loaded arm's greater BMC (an average 19% side-to-side difference in young starters and 9% in old starters) was caused by an enlarged cortex (CoA; side-to-side differences 20% and 9%, respectively). The loaded humerus seemed to have grown periosteally (the CavA did not differ between the sites) leading to 26% and 11% side-to-side BSIt difference in the young and old starters, respectively. CoD was equal between the arms (−1% difference in both player groups). The side-to-side differences in the young starters' BMC, CoA, TotA, CWT, and BSIt were 8–22% higher than those of the controls and 8–14% higher than those of the old starters. Old starters' BMC, CoA, and BSIt side-to-side differences were 6–7% greater than those in the controls. The DXA-derived side-to-side aBMD difference was 7% greater in young starters compared with that of the old starters and 14% compared with that in controls, whereas the difference between old starters and controls was 6%, in favor of the former. All these between-group differences were statistically significant. At the distal radius, the player groups differed significantly from controls in the side-to-side BMC,

TrD, and aBMD differences only; the young starters' BMC difference was 9% greater, TrD and aBMD differences were 5% greater than those in the controls, and the old starters' TrD and aBMD differences were both 7% greater than those in the controls. In summary, in both of the female player groups the structural adaptation of the humeral shaft to long-term loading seemed to be achieved through periosteal enlargement of the bone cortex although this adaptation was clearly better in the young starters. Exercise-induced cortical enlargement was not so clear at the distal radius (a trabecular bone site), and the study suggested that at long bone ends also the TrD could be a modifiable factor to build a stronger bone structure. The conventional DXA-based aBMD measurement detected the intergroup differences in the exercise-induced bone gains, although, measuring two dimensions of bone only, it seemed to underestimate the effect of exercise on the apparent bone strength, especially if the playing had been started during the growing years.

19. Philip Dewe, Michael O'Driscoll (2002) "Stress management interventions: what do managers actually do?":-

Presents a report of research which surveyed managers' views on stress, their beliefs about stress interventions and who should be responsible for addressing job-related stress problems. Stress management interventions have embedded in them a range of practices that offer opportunities for individual development and employee wellbeing. Equally, though, there is a strongly-held belief that many interventions fall short, because they offer only a partial solution or fail to recognize the wider contextual-structural issues within which organizational behavior takes place. One reason for this may be that little attempt has been made to find out what managers understand by stress and the extent to which they think that their organization has a responsibility to address problems of stress. Both qualitative and quantitative techniques were used to explore these issues, using a sample of 540 New Zealand managers. The results draw attention to a number of issues including: do managers' views of stress reflect acknowledged definitions? Who should assume responsibility for managing stress? What do managers mean when they indicate that an intervention is effective? Are stress interventions any different from standard human resource practices and is there a role for theory in stress interventions?

20. J Sommerville and V Langford (2002) "Multivariate influences on the people side of projects: stress and conflict":-

The paper sets out findings from research carried out with a variety of construction project managers. The work considers the definitions and functionality of occupational stress and conflict, and relationships which may exist between the two. The perceived sources of stress and conflict within the construction industry, and its attendant groupings, are discussed in the light of a theoretical construct and supporting field data. The resultant effects of stress and conflict are discussed in some detail along with the variety of coping strategies adopted as conflict and stress negators. Consideration is given to the various forms of conflict which may be found within construction projects and the stages present within the conflict events are discussed with respect to contract interfaces and the analysis of interpersonal relationships. The influence of 'personality type' is addressed with respect to the industry, the industry's operational procedures, and socioeconomic influences upon the individual. Management strategies are then proposed which may be considered as reducers or eliminators of stress and conflict at the earlier stages of the project's lifespan.

21. Margareta Gällstedt (2001) "Working conditions in projects: perceptions of stress and motivation among project team members and project managers":-

The emergence of temporary and democratic work forms characterizes work today and organisations to a great extent rely on individuals' performance. Workers' perceptions of working conditions are affected by two important factors: motivation and stress. Projects are motivating due to clear goals, but they are also often time pressured. Incidents like, for example, loss of resources, changing preferences or priorities, or project closure might provoke changes to the set goals, to which individuals have committed. This could obstruct effective goal fulfilment as well as create stress among the people involved. How do project managers and project team members perceive incidents that the typical project encounters? How do they cope with uncertainties the incidents bring about? The finding suggests that incidents cause changes over the project lifecycle, both of goals and of individuals' perceptions of tasks, conditions, and the situation. Different coping strategies are used to reduce uncertainty and stress.

22. Sharon G. Clarke, Cary L. Cooper (2000) "The risk management of occupational stress":-

In Europe, occupational stress is considered as a risk-assessable disease. Recent high-profile litigation cases have raised awareness of the risk posed by workplace stress. Whilst legislation provides guidelines for the risk assessment of physical hazards, there remains little guidance for employers concerning occupational stress. This article proposes a risk management methodology that might be used to identify hazards and assess the level of risk associated with those hazards, using well-validated stress audit instruments, for example the Occupational Stress Indicator. It is suggested that a risk management approach is both informative and cost-effective. High risks, which may require more expensive organizational development solutions, can be differentiated and prioritized from lower risks, which may be effectively controlled through stress management or Employee Assistance Programmes.

23. Adelina Broadbridge (1999) "Retail managers: stress and the work-family relationship":-

Causes and effects of occupational stress have received research attention for several decades although increasing focus has been paid to it during the 1990s as organisations and individual workers attempt to adapt to accelerating rates of change. Previous research has proposed three hypotheses to explain the work-family relationship: spillover, compensation and independence. Drawing on qualitative research with retail managers from a variety of UK major retailers, this article attempts to uncover the relationship between work demands and home life. The results of the research found that family boundaries are more permeable than work boundaries. Although spillover behaviour was evident, there was no evidence to suggest that the retail managers adopt compensatory or independent models of behaviour. To alleviate some of the pressures experienced by the retail managers, calls for a reassessment of working practices. The introduction of more flexible working arrangements, providing quality time off from work, and a realistic assessment of the retail manager's job are some of the recommendations provided.

24. Marie McHugh, (1997) "The stress factor: another item for the change management agenda?":-

Reveals that public sector organizations across the globe have been subject to cuts in government spending, allied to demands for enhanced efficiency and effectiveness. Consequently many have embarked on radical programmes of change which may adversely affect the psychological wellbeing of employees. Examines linkages between organizational change and the psychological wellbeing of employees within the Swedish social insurance organization "Försäkringskassan". Gives results which show that the process of organization change is stressful; issues associated with the process of change were linked to employee anxiety and symptoms of being "worn out". As the pressures facing public sector organizations everywhere bear a high degree of similarity, suggests that management take cognizance of these findings. Argues that when making decisions regarding the planning and implementation of organizational change, the stress factor must receive a prominent place on the change management agenda.

25. Ramdane Djebarni (1996) "The impact of stress in site management effectiveness":-

This paper reports on the findings of a piece of research work aimed at investigating and analyzing the impact of stress on the effectiveness of site managers as leaders. The sample of the study included semi-structured interviews with 71 site managers at the sharp end of production and their superiors. The investigation was more specifically concerned with the impact of three types of stressors, namely boss stress, job stress and environment-job stress. It was revealed, among other findings, that the impact of stress on site managers followed to a great extent the typical inverted U-shaped pattern. Moreover, the results showed that the impact of stress is contingent to a large extent upon the type of stressors.

26. Lawrence R. Murphy (1996) "Stress Management in Work Settings: A Critical Review of the Health Effects":-

- **Purpose -** To review critically the research literature on the health effects of worksite stress-management interventions.

- **Search Methods -** Stress-management interventions were defined as techniques that are designed to help employees modify their appraisal of stressful situations or deal more effectively with the symptoms of stress. Stress-management studies that were worksite based, assessed a health outcome, and were published in the peer-reviewed literature were included in this review. The main search method was the one described in the lead article to this special issue of the JOURNAL, but supplementary sources included prior reviews of the research literature and expert contacts. Sixty-four studies met the criteria for inclusion in this review.
- **Summary of Findings -** A variety of stress-management techniques was used in worksite studies, including muscle relaxation, meditation, biofeedback, cognitive-behavioral skills, and combinations of these techniques. The most common techniques used were muscle relaxation, cognitive-behavioral skills, and combinations of two or more techniques. Outcome measures to evaluate the success of stress interventions included physiologic and psychologic measurements, somatic complaints, and job-related measures. Nearly three-fourths of the studies offered the training to all workers and did not specifically recruit high-stress employees. Over half the studies were randomized control trials, but only 30% conducted post training follow-up evaluations. The effectiveness of stress interventions varied according to the health-outcome measure used; some techniques were more effective for psychologic outcomes (*e.g.*, cognitive-behavioral skills), whereas others were more effective for physiologic outcomes (*e.g.*, muscle relaxation). Biofeedback was the least frequent technique used in work settings and also seemed to be the least effective technique. Meditation produced the most consistent results across outcome measures but was used in only six studies. In general, studies using a combination of techniques (*e.g.*, muscle relaxation plus cognitive-behavioral skills) seemed to be more effective across outcome measures than single techniques.
- **Conclusions -** The large number of different stress-management techniques coupled with the wide range of health outcome measures used in stress intervention studies makes it difficult to draw firm conclusions about the efficacy of each technique and each outcome. Also, the quality

of the methodology varied substantially among studies. Nevertheless, the most positive results across the various health outcomes were obtained with a combination of two or more techniques. None of the stress interventions was consistently effective in producing effects on job/organization-relevant outcomes, such as absenteeism or job satisfaction. To produce changes on these types of measures, stress interventions will need to alter or modify the sources of stress in the work environment. It can be said that stress management in work settings can be effective in enhancing worker physical and psychologic health, but the choice of which stress-management technique to use should be based on the specific health outcomes that are targeted for change.

27. Lawrence R. Murphy (1995) "Managing job stress: an employee assistance/human resource management partnership":-

Starts from the premises that stress at work is a significant and costly problem, and that the challenge for companies is to manage work stress in order to reduce health-care costs and improve productivity. Suggests that this challenge can be met by greater collaboration among company departments, bringing expertise from different areas to bear on the problem. Describes the conceptual basis for such collaboration and presents a case study of an ongoing partnership between an employee assistance programme and a human resource management group

28. David W. Rainey (1995) "Stress, Burnout and Intention to Terminate among Umpires":-

Investigators have studied stress and burnout, and the relationship between these experiences, for a number of occupations, including teachers (Kyriacou, 1987), counselors (Jupp & Shaul, 1991), child care workers (Boyd & Pasley, 1989), nurses (Mallett, Price, Jurs, & Slenker, 1991), and police officers (Burke & Descza, 1986). Research has indicated that higher frequency and/or higher intensity stressors are related to higher levels of burnout (Maslach, 1982). Burnout, in turn, often has negative consequences. These consequences can include physical and psychological symptoms (Kahill, 1988) and behavioral consequences, such as termination of employment (Jackson, Schwab, & Schuler, 1986).

In recent years, investigators have also begun to study stress and burnout among sport officials. Taylor and Daniel (1988) examined the validity of the Maslach Burnout Inventory (MBI, Maslach & Jackson, 1981) for use with soccer officials. These authors altered the wording of items to make them appropriate for the sport context, and they concluded that the altered instrument showed promise for work with sport officials. In a related effort, Taylor and Daniel (1987) examined the sources of stress among soccer officials. They analyzed the responses of 215 officials to the Soccer Officials Stress Survey and concluded that six factors (Interpersonal Conflict, Fear of Physical Harm, Time Pressures, Peer Conflicts, Role-Culture Conflict, and Fear of Failure) were sources of stress for these officials.

Two studies have expanded upon the work of Taylor and Daniel (1987). Goldsmith and Williams (1992) examined the sources of stress among a sample of volleyball and football officials. These officials reported three of the original six factors reported by Taylor and Daniel (Fear of Failure, Fear of Physical Harm, and Time Pressure). However, because the sample was so small, and because the results were based upon the mixed data of officials from two very different sports, the reliability of the factors reported by Goldsmith and Williams (1992) is questionable. Rainey (1995) examined the sources of stress among baseball and softball umpires using a modified Ontario Soccer Officials Survey (OSOS). Four correlated sources of stress factors (Fear of Failure, Fear of Physical Harm, Time Pressure, and Interpersonal Conflict) emerged from the responses of the umpires. They were very similar to four factors reported for soccer officials by Taylor and Daniel (1987).

Taylor, Daniel, Leith, and Burke (1990) have extended the research on stress among officials by examining the consequences of that stress. They used path analytic techniques to examine the role of burnout as a mediator between the stress factors and intentions to quit officiating. Soccer officials responded to the OSOS, which included a modified MBI, a measure of sources of stress, and a measure of intention to quit officiating. Consistent with the earlier research on occupational burnout, these authors found a significant positive correlation between total stress factor scores and total burnout scores. Further, cross-sectional path analysis indicated that age, Fear of Failure, Interpersonal Conflict, and Role-

Culture Conflict were significant predictors of total burnout and that age and burnout predicted intention to terminate. Thus, burnout mediated the effects of the three stress factors on intention to quit and partially mediated the effects of age.

The purpose of the present study was to extend the research of Taylor *et al*. (1990) by examining the relationships among age, sources of stress, burnout, and intentions to quit for baseball and softball umpires. Four sources of stress factors (Fear of Failure, Fear of Physical Harm, Time Pressure, and Interpersonal Conflict) had already been identified among these officials (Rainey, 1995). Based upon the results of Taylor *et al*., the hypotheses of this study were that: (a) age, Fear of Failure, and Interpersonal Conflict would be significant predictors of burnout, (b) Fear of Physical Harm and Time Pressure would not be significant predictors of burnout, and (c) age and burnout would be significant predictors of intention to quit umpiring.

Method

- **Participants -** Participants were 782 certified umpires, 763 men and 19 women, living in a Midwestern state. They officiated amateur baseball and/or softball competition, from youth leagues to adult/college games. Their average age was 43.2 years (SD = 10.8 yrs), and their average umpiring experience was 13.6 years (SD = 9.2 yrs).

29. David Johnson (1995) "Stress and stress management among owner-managers of small and medium-sized enterprises":-

The "stress management industry" has developed whereby organizations and individuals offer stress management interventions. These interventions claim to address a problem, about which there is still a great deal of uncertainty. Most of the literature about stress and its management has been derived from, and thus limited to, large organizations. Explores the issue of stress management as it is experienced by owner-managers of small and medium-sized businesses in the UK. Looks at some of the more recent theoretical and empirical literature and concludes with recommendations for stress management within the small firms sector.

30. Jakki Mohr, Robert Spekman (1994) "Characteristics of partnership success: Partnership attributes, communication behavior, and conflict resolution techniques":-

The formation of partnerships between firms is becoming an increasingly common way for firms to find and maintain competitive advantage. While the antecedents of partnership formation and the characteristics of the resulting cooperative working relationship have been explored in the literature, an understanding of characteristics associated with partnership success is lacking. Such an understanding is important in reconciling the prescriptions to form partnerships with the reality that a majority of such partnerships do not succeed. We hypothesize that partnership attributes, communication behavior, and conflict resolution techniques are related to indicators of partnership success (satisfaction and sales volume in the relationship). The hypotheses are tested with vertical partnerships between manufacturers and dealers. Results indicate that the primary characteristics of partnership success are: partnership attributes of commitment, coordination, and trust; communication quality and participation; and the conflict resolution technique of joint problem solving. The findings offer insight into how to better manage these relationships to ensure success.

31. Fagenson, Ellen A. (Ed) (1993) "Women in management: Trends, issues, and challenges in managerial diversity":-

"Women in Management" traces women managers' experiences using a wide-ranging, interdisciplinary analysis. Top scholars and researchers begin by examining historical and global perspectives; continue with individual and organizational issues such as ethnicity, health, and personal and family life-styles; and conclude by exploring future trends in the issues of job discrimination and the restructuring of organizations from a feminist perspective. Each section concludes with a commentary from a leading authority who assesses and brings additional insight to that section. (PsycINFO Database Record (c) 2010 APA, all rights reserved).

32. Hunskaar, Steinar; Visnes, Anne (1992) "The quality of life in women with urinary incontinence as measured by the Sickness Impact Profile":-

Reports an error in the original article by S. Hunskaar and A. Vinsnes (*Journal of the American Geriatric Society,* 1991 [Apr], Vol. 39[4], 378–382). There was a mistake in the calculations, resulting in 9 women being placed in the wrong symptom group. The data have been totally reanalyzed, and all major findings are still valid. (The following abstract of this article originally appeared in PA, Vol. 78:27846.) Assessed the quality of life of women with urinary incontinence according to age, symptom group, amount of leakage, and duration using the Sickness Impact Profile (SIP) of M. Bergner *et al.* (1976). 36 women, aged 40–60 yrs, and 40 women, aged 70+ yrs, were selected from the clients attending an incontinence clinic. Urge and stress incontinence subgroups were defined by means of a symptom questionnaire. Total, psychosocial, and physical dysfunctions were moderate (8%, 7%, and 8%, respectively) in general, but major differences were found when age and symptom groups were analyzed. Urge symptoms were associated with more impairment than symptoms of stress incontinence. The elderly women with symptoms of stress incontinence were relatively little affected, while their younger counterparts were severely affected. (PsycINFO Database Record (c) 2010 APA, all rights reserved).

33. Marie McHugh, Shirley Brennan, (1992) "Organization Development and Total Stress Management":-

If organization development is to achieve the objective of improving organizational effectiveness, it is essential that companies adopt a proactive and preventive approach to stress management. Such an approach would reduce the costs of stress which result directly from organization development and, additionally, the costs of previously existing stress factors such as high labour turnover, absenteeism and reduced productivity. A practical all-encompassing model is presented which brings the organization towards a philosophy of "total stress management" (TSM). Organizations which develop this philosophy, through the adoption of the practical action model, will be able to reduce the cost of stress substantially.

34. Sherny E. Sullivan and Rabi S. Bhagat (1992) "Organizational Stress, Job Satisfaction and Job Performance: Where Do We Go From Here":-

This article reviews and summarizes two decades of empirical literature concerned with both direct and moderating variable-based analyses of the relationship of organizational stress with job satisfaction and job performance. Moderating influences of various constructs operational zed at the individual, group and organizational level of analysis are classified and then reviewed systematically. An evaluative summary of this research suggests that although there have been significant improvements in the analytical methods employed to investigate such phenomena, much of this research still does not consider the role of reciprocal relationships that evolve over time. We provide four guidelines for improving the quality of both theoretical rigor and methodological robustness in this important area of organizational inquiry.

35. Daniel C. Ganster and John Schaubroeck (1991) "Work Stress and Employee Health":-

We review and summarize the literature on work stress with particular emphasis on those studies that examined the effects of work characteristics on employee health. Although there is not convincing evidence that job stressors cause health effects, the indirect evidence is strongly suggestive of a work stress effect. This evidence comes from occupational studies that show differences in health and mortality that are not easily explained by other factors and within-subject studies that demonstrate a causal effect of work experiences on physiological and emotional responses. We argue that studies relying on self-report of working conditions and outcomes, whether cross-sectional or longitudinal, are unlikely to add significantly to the accumulated evidence. Finally, we make recommendations for how organizational researchers are most likely to contribute to this knowledge.

36. R F Lusch, B J Jaworski (1991) "Management Controls, Role Stress, and Retail Store Manager Performance":-

Although it is commonly assumed that informal and formal management controls are linked to retail manager performance, virtually no empirical work has examined this fundamental control relationship. To investigate this linkage, we rely upon a survey of retail store managers and superior ratings of store manager performance. Interestingly, none of the three control mechanisms investigated in this research have a direct effect on manager performance, however, the findings indicate that the two informal controls (*i.e.*, self and social) have an indirect effect on manager performance through their effects on role stress. In contrast, the formal control mechanism (i.e., output control) has no indirect effect. Finally, role stress is directly linked to store manager performance. Managerial implications and directions for future research in retailing are discussed.

37. David Johnson, (1991) "Stress Among Graduates Working in the SME Sector":-

The causes and consequences of stress are well documented. The specific way in which stress may affect the graduate working in small- and medium-sized enterprises (SMEs) is the focus. A model of stress, specific to the experiences of the graduate, which incorporates both the causes and consequences of stress is developed and viewed as a necessary precursor to empirical investigation. Having highlighted how stress may manifest for the graduate working in SMEs, interventions are suggested which could reduce the all too apparent costs. An awareness of the effects of stress, education about the working environment, and the need for support networks, are presented as potential stress management strategies.

38. Robert C. Cummins (1990) "Job Stress and the Buffering Effect of Supervisory Support":-

This investigation examined the buffering model of social support with respect to the moderating effect of supervisory support on the relationship between job stress and job dissatisfaction for 96 employed graduate and undergraduate business students. Although a cross-sectional design was employed, results are

consistent with the hypothesis that supervisory support acts as a stress buffer only for individuals who are relationship—oriented—as measured by Fiedler's (1967) esteem for least preferred co-worker (LPC) scale. Implications for organizational interventions and for linking of leadership theory with the stress-buffering model of supervisory support are discussed.

39. Ivancevich, John M.; Matteson, Michael T.; Freedman, Sara M.; Phillips, James S (1990) "Worksite stress management interventions":-

Despite the general agreement that stress plays a role in everyday life, there continues to be substantial controversy about how stress can be managed at the worksite. During the last decade, our knowledge of stress management interventions has increased substantially. Despite this improvement, deficiencies in the literature exist. In this article, we offer a framework that may be used for viewing organizational stress interventions, briefly review some of the stress management intervention literature in the context of this framework, and identify future needs that may be particularly appropriate for organizational psychologists to address. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

40. Kim James, Tanya Arroba, (1990) "Politics and Management: The Effect of Stress on the Political Sensitivity of Managers":-

This article acknowledges the need for managers to be more politically sensitive, due to social and organisational changes. The dual nature of the link between politics and stress is explored. First, the question of how political situations lead to stress is examined. In order to analyse the second link a model of political sensitivity and a model of stress are presented. This enables the effect of stress on the dimensions of political skill to be assessed. In conclusion, the implications of these links for management and organisation development are drawn.

41. Wayne D. Bodensteiner, Edwin A. Gerloff, James Campbell Quick (1989) "Uncertainty and stress in an R&D project environment":-

R&D project managers work in an environment in which the uncertainty and complexity of engineering development problems are an important source of

episodic job stress. A study of the US. Navy's top major project R&D managers (N = 118) was conducted to test the use of various coping skills and social support as preventive stress management techniques for this population. It was found that perceived environmental uncertainty (PEU) had a direct, positive effect on psychological distress of these project managers while social support had a therapeutic effect on their experience of burnout. While problem focused coping did not have a small, positive effect on burnout, coping skills nor social support were found to have a primary prevention effect upon perceived environmental uncertainty (PEU).

Engineering managers engaged in high technology R&D are confronted by a wide range of uncertainties, risks and changing demands that give rise to the stress response with its attendant physiological and psychological changes (Asterita, 1985). Adams (1980) has argued that an episodic versus chronic dichotomy of stressors is valuable because it distinguishes between intermittent stressors of finite duration (episodic) and ongoing stressors of in determinant duration (chronic). This article reports the results of a study of uncertainty as an episodic work stressor for the U.S. Navy's high technology R&D project managers. The results suggest that R&D project managers should develop social support systems and structures to maintain well-being and avert distress and strain.

42. Monty L. Lynn, Jozell Brister (1989) "Trends in Union Organizing Issues and Tactics":-

A survey of union organizers (N = 97) was conducted to determine the extent to which new organizing issues and tactics are being used to help offset declining union membership. Results indicate that grievance procedures, job security, improved benefits, and higher pay are the most commonly stressed issues in organizing campaigns. The two tactics used most often are small groups and literature distribution. Organizers working in industries with a larger percentage of female workers differ significantly from other organizers in the use of certain tactics and issues. Overall, however, there does not seem to be much change in either organizing tactics or issues.

43. J.A. Sholield (1988) "Production functions in the sports industry: an empirical analysis of professional cricket":-

Production functions are estimated for English county cricket using samples of data for the County Championship and the John Player League in the seasons of 1981–83. Results suggest possible lessons for the management and conduct of the game at the level of the individual club; in particular the allocation of resources for developing playing skills, the composition of playing staffs, selection of teams for particular games, and strategies on the field. Results also provide statistical evidence for some points of conventional wisdom regarding the professional game.

44. Roy Bailey, (1988) "Keeping Key Players Productive: How to Identify and Manage Stress":-

Stress damages us and our performance. It is a real part of most manager's experience and can be said to occur when significant demands exceed perceived management responsibilities and routines. Stress can be the essence of working life, and certainly need not always be damaging to us. But when it becomes excessive, it is something unwanted.

45. John M Ivancevich & Michael T Matteson (1987) "Organizational Level Stress Management Interventions":-

The popular press has informed the public that stress can be efficiently managed with a diverse array of techniques and programs. Unfortunately, these claims have not been scientifically tested or evaluated. In fact, organizational based stress management intervention programs which incorporated well designed evaluations have rarely even been attempted. This paper provides a stress management framework and then reviews the literature to determine what can be done to increase researcher interest and dedication to scientifically designing, implementing, and evaluating organizational level stress management intervention programs.

46. Lawson K. Savery, (1986) "Stress and the Employee":-

Some stress is needed in order for individuals to achieve anything. However, excessive continual stress without relief is very dangerous. A self-administered questionnaire in the staff headquarters of a major local government employer in Western Australia (56.3 per cent males) showed that perceived work-generated stress levels appear to be a major problem and could lead to possible stress-related illnesses. Managers must make an effort to identify problems such as role ambiguity, role conflict and role overload and attempt to reduce them. They must consider whether they are asking staff to do too much. Stress management techniques should be introduced as a training programme.

47. Peggy Leatt, Rodney Schneck (1985) "Sources and Management of Organizational Stress in Nursing Sub-units in Canada":-

The main objectives in this research were to explore differences in kinds of stress in varying types of nursing sub-units in hospitals and to examine the relative importance of sub-unit characteristics such as the technology, size, environment, context, structure, and internal sub-unit processes in contributing to sub-unit stress. Five kinds of stress were identified: stress from traumatic emotional experiences, psycho geriatric work load, scheduling of work, physician-nurse relationships, and personality role stress; some of these were found to be associated with variations in the technology of the sub units, but did not appear likely to be modifiable through changes in structural design and organizational processes. Other types of stress were related to both the technology and the sub-unit environment and these appeared to be more amenable to modification through the type of structure and internal processes of the sub-unit.

48. Matteson, Michael T.; Ivancevich, Jhon M. (1982) "The How, What and why of Stress Management Training":-

The authors state that employers need to adopt a preventive orientation with respect to stress management and stress training. They examine the costs of stress, the stressed employee, the structure of a stress management program, training objectives, skill acquisition, sources of stress, learning new skills, feedback, and program evaluation. (CT)

49. Leonard I. Pearlin, Elizabeth G. Menaghan, Morton A. Liberman and Joseph T. Mullan (1981) "The Stress Process":-

This study uses longitudinal data to observe how life events, chronic life strains, self concepts, coping, and social supports come together to form a process of stress. It takes involuntary job disruptions as illustrating life events and shows how they adversely affect enduring role strains, economic strains in particular. These exacerbated strains, in turn, erode positive concepts of self, such as self-esteem and mastery. The diminished self-concepts then leave one especially vulnerable to experiencing symptoms of stress, of which depression is of special interest to this analysis. The interventions of coping and social supports are mainly indirect; that is, they do not act directly to buffer depression. Instead, they minimize the elevation of depression by dampening the antecedent process.

50. John D. Adams (1981) "Health, Stress, and the Manager's Life Style":-

This paper discusses an approach to health for preventing illness rather than trying to repair the body after it breaks down. Considerations of stress and health habits (life styles) are integrated with an understanding of how stress operates in modern organizations and what it can do to organizational members. Two impact studies are described that suggest that training in stress and life-style management has a positive outcome in a significant number of cases.

Finally, a protective health-management paradigm is suggested.

51. John D. Aram and Paul F. Salipante, Jr. (1981) "An Evaluation of Organizational Due process in the resolution of Employee/ Employer Conflict":-

A need for organizational procedures to resolve employee/employer conflict has been stimulated by expanding definitions of employee rights, greater statutory protection of employees, and the opportunity for corporate adaptation in areas of employee dissatisfaction. The utility of internal organizational systems of conflict resolution, or "due process," rests on the formulation of specific objectives and values, a high degree of decision-maker independence, balanced formality of procedures, and matching types of conflict with means of resolution.

52. Cary L. Cooper, Judi Marshall, (1975) "The Management of Stress":-

The topicality of 'stress at work' is largely due to recognition of the harmful effects that the mental ill health of both management and workers can have on organizations. Attention in the USA has been focused on an estimated financial cost of $6 billion a year. In the UK the damaging consequences of absenteeism, poor work performance, alcoholism, coronary diseases, and psychosomatic illnesses have become a major cause for concern.

2.2 RESEARCH GAP

After going through above mentioned 52 reviews here and many readings on E-Resources, News papers, Magazines etc. it is clearly said that there is no specific studies is being done on the stress related to cricket umpire, especially in India.

Hence it can be clearly said that there is a need of research in this specific field having interactive thinking of Management – Stress Management – Psychological aspect of Cricket Umpire.

2.3 OBJECTIVE OF THE STUDY

The purpose of the study is to develop an understanding of process of stress management from the view of cricket umpire and analyze it's implications on the game of cricket. The major objectives of study are:

1. To identify stressors to umpires before, during & after the match.
2. To analyze the stress level of cricket umpire while handling the game of cricket.
3. To identify and enumerate the factors responsible for the stress situations and there resolutions.
4. To interrogate the perception of various factors responsible for the symbiotic relationship between pressure situations and ongoing solving activities to cope up with the most stressed pressure stipulation
5. To find the relationship of EI and stress level of the umpires.

2.4 HYPOTHESIS

"A hypothesis is a suggested explanation of a phenomenon, or alternately a reasoned proposal suggesting a possible correlation between or among a set of phenomenon." It is mainly considered or most important instrument in research. It is a predictive statement, capable being tested by scientific method.

Generally it means a mere assumption or some supposition to be proved or disproved but for a researcher it is a formal question that he find the answer. As such the manner in which research hypothesis are developed is particularly important that they provide the focal point of research.

On the basis of objectives of the study following hypothesis are formulated:

1. {a} There is a non – significant relation between Physical Stressors before and during the match for Umpires.
2. {a} There is a non – significant relation between Mental Stressors before and during the match for Umpires.
3. {a} There is a non – significant impact of Physical and Mental Stress on successful performance for Umpires (Personal level).
4. {a} There is a non – significant contribution of Self, Team and Organization in successful performance for Umpires (Cricket related).
5. {a} There is a non – significant contribution of Physical and Mental Stress in hindering the performance for Umpires (Personal level).
6. {a} There is a non – significant contribution of Self, Team and Organization in hindering the performance for Umpires (Cricket related).
7. {a} There is non – significant difference in the Systolic Blood Pressure of Umpires before, during and after the game.
8. {a} There is non – significant difference in the Diastolic Blood Pressure of Umpires before, during and after the game.
9. {a} There is non – significant difference in the Pulse of Umpires before, during and after the game.

2.5 RATIONALE, NEED AND SCOPE OF THE STUDY

A. Rationale of the study

Cricket can be an aggressive sport, but it is the ball and the bat that should do the talking. The hostile, nasty and intimidating environment that the Australians create on the pitch is a key ingredient in unsettling an opponent. Little wonder that, sometimes, a volatile character lashes out in what he would perceive as self-defence, and what does it say of these "hard" men that they then go and report him to the umpire?

They can give it, but can't take it, but the above might offer some insight into how a cowed opponent could suddenly react to the intense pressure and intimidation that has been deliberately and ruthlessly applied to him by the fielding team. Purely because we are talking about India here, I am going to throw in Sreesanth's name as an example of an Indian cricketer who has often – and recently - gone well beyond the spirit of cricket.

Basically present study is helpful to analyze the various stress and pressure situations which Umpires are facing before during & after the match and how they deal with these situations. These situations are having a both positive and negative impact on the Umpires performance.

Present study is limited to the Stress & it's implications to the Umpires before, during and after the match only but further we can analyse and measure the same thing for Cricket Coaches, Match Referees, Commentators and Team support staff also.

B. Need of the study

1. The study will help to understand the challenges in the integration of stress management with the umpires.
2. The study will explore the various consequences as a result of a stress situation handled by umpires.

3. The study plans to explore the untold pressure which is faced by an umpire and much has not been written about it in India despite a huge cricket fever.
4. This study aims to find out the special self management skills and attributes of an umpire.
5. The study will help to explore the recognize pressure symptoms which is usually faced by an umpire during and after the match.
6. The study will explore various sources of hidden aspects of stress level and its symbiotic relationship between an umpires, governing body of the game.
7. The study will help to find out the external & internal triggers of stress management.
8. The study will provide a strong base for measuring the effectiveness of stress handling techniques at the time of the game before & after it.
9. The study aims at continuously looking for innovative ideas and strategies adopted by an umpire to cope up with the most stressed situation and its aftermath..
10. The study will help to analyze the impact of anxiety on indoor and outdoor performance of an umpire.
11. This study will help to analyze the co-relation between the umpires & their teamwork.
12. The study will guide the umpire to implement the right technique at right time and the right place with effective self management and mgt. of stress & burnout.

C. Scope of the study

As it simply clear, the proposed study is an attempt to fill up the major research gap in the area of studying symbiotic relationship between self management, stress management & players management techniques with related to the said above situations. The above review of available literature clearly indicates no such

concerted studies have taken place in the past in India particularly. However some fragmented studies have taken place in the past focusing on one or the other component of stress level of umpires while pursuing their duties.

2.6 SAMPLING PLAN

- **Type of Sampling** - Convenient Sampling
- **Selection of the Sample -** The sample size of this present study is, overall {**50 Umpires** } were selected for the purpose of this study. These 50 Umpires are representing the various levels like District, State, National & International.

Research Tools for Primary Data Collection

A. **Questionnaire -** The entire study was based on primary & secondary data. For primary investigation a detailed questionnaire as per (specimen attached) was prepared. This questionnaire is designed for the Umpires . The main aim behind designing this questionnaire was to get the relevant information for the research.

B. **Personal Interview -** It is also important method of data collection. For the purpose of the present study with questionnaire a personal Interviews was also followed with Umpires. The main aim behind this personal interview was to get accurate and reliable information.

Research Tools for Secondary Data Collection

A. **Internet -** for the purpose of this study relevant networks and websites have been accessed or preferred by time to time.

B. **Journals -** Various types of Journals were commonly used for gathering relevant information.

In addition to the above different types of Books, Dissertations, Publications, Articles and Ph.D. thesis were also considered for the information.

Note - The questionnaire was administered to a pilot group of 10% of representative sample and the test of reliability and validity were applied. **{Crobach Alpha Score =0.856}** since the score is more than {0.7} hence the questionnaire used in the research was reliable.

2.7 METHODS OF ANALYSIS

Data collected in spread sheet in excel and SPSS 17 was used for applying following tests:-

(i) Percentage Method

(ii) Z Test

(iii) One way ANOVA

(iv) Rank Correlation

(v) Mean and Standard Deviation.

2.8 CONSTRAINTS OF THE STUDY

However cricket, once called the "gentleman's game," has also been a target of criticism from health circles. For example, professional Umpires & cricketers spend countless hours in open daylight. Excessive exposure to heat in these individuals increases the risk of dehydration, heat stroke and heat exhaustion, whereas excessive sunlight exposure has been associated with an increased risk of melanoma and other stress problems. To counter this, most Umpires & Cricketers use different brands of sunscreens, which themselves have health implications. In addition, Umpires & Cricketers have also been known to suffer from depressive and other psychological disorders, with many requiring rehabilitation.

Injuries sustained during cricketing activities form a major chunk of the health hazards caused as a result of playing the sport. A cricketing injury is defined as 'any injury or other medical condition that either prevents a Umpire from being fully available for selection for a major match, or during a major match, causes a player to be unable to bat, bowl or keep wicket when required'.

Although while going through the research work we request the different Umpires and players that they should cooperate in taking the blood samples to study their sugar level before, during and after the match, but they deny from this that is why this study is restricted up to the analysis of the stress and their implications through the testing of their blood pressures and pulse.

Every research work has its own limitations. In this research certain limitations were mentioned below:-

1. This study is limited to Cricket Umpires only.
2. For the purpose of collecting the data from Umpires are very difficult as most of the time they were busy in various tournaments.
3. Time is also a big limitation in my study.
4. Some respondents are hesitating to give information about their Personal and Professional life.
5. Some respondents are not getting ready to check their Blood Pressure and Pulse.

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Chapter – 3

HISTORICAL BACKGROUND AND DEVELOPEMENT

3.1 HISTORY OF CRICKET

3.2 FOCUS TECHNIQUES FOR UMPIRE AND HIS PARTNER

Chapter - 3

HISTORICAL BACKGROUND AND DEVELOPMENT
(With special reference to Cricket)

Winning or Losing depends on the team and players which is dominated by how Stress free or confident the team is to its opponents. Stress plays very crucial role in every game and sport because you can put the strong opponents also in Stress situation with your positive energy and confidence towards the game.

3.1 HISTORY OF CRICKET

The origins of cricket are not clearly documented. However, it is clear that from earliest times people played games which involved striking an object with a stick. Some of the more interesting or key dates are listed below. Further details may be obtained by reference to texts included in Recommended Reading.

- Earliest Recordings
- Date Event or Record
- **1300** Documented evidence that Prince Edward played a game called Creag.
- **1344** A document in the Bodleian Library illustrates a cricket-like game being played. The Saxon word “cricce” or “cric” (a staff or crooked stick) may be the origin of the name.
- **1500** and **1598** Records at Guildford mention “Creckett” and refer to playing “crecket and other plaies”.
- **1611** Chichester Court – two men fined for playing cricket on Sunday.
- **1624** The first recorded fatality, when Jasper Vinall died after having been accidentally struck with a cricket bat.

- 17th century some evidence that cricket may have been played in public schools.
- The Start of the Modern Game
- **1744** The Laws of the game first written down and printed.
- **1787** The formation of the Marylebone Cricket Club (MCC).
- **1788** The MCC revised the laws.
- **1864** The modern over arm style of bowling was made legal.
- The game was further developed following improvements to the grounds as a result of the use of the "heavy roller". Additionally,
- Between 1850-1855 mowing machines were first used.
- The latter half of the 19th century was the era of W. G. Grace who, during his career, made 54,896 runs and took 2,864 wickets. He retired in 1908.

The History of County Cricket

- **1787** The first "county" club, Oxfordshire.
- **1853** The first county champions, Nottinghamshire.
- NB: At this time the press decided who the champions were.
- **1890** County Secretaries officially acknowledged the championships.

Test Cricket

- **1736** Sailors recorded as playing cricket near Lisbon.
- **1844** First international between USA and Canada.
- **1859** First tour by England of USA and Canada.
- **1861-62** First tour of Australia.
- **1876-77** First test matches played.
- **1878** Australians travel to England.
- **1880** First test match played in England.

- **1882** England beaten by Australia at the Oval. The Sporting Times reported "The body will be cremated and the ashes taken to Australia".
- **1882-83** England beat Australia in Melbourne. Some ladies burned a bail, sealed the ashes in an urn and gave it to the English Captain. On his death the ashes were left to the MCC, and this is the basis of the Ashes competition.
- **1909** Imperial Cricket Conference established to administer cricket worldwide.
- **1965** The name was changed to the International Cricket Conference.
- **1968** The Test and County Cricket Board was established to run test cricket, and the National Cricket Association to foster interest in coaching and the recreational game. The MCC administer the Laws both at home and abroad. All three of the above form the Cricket Council, the governing body of the sport. There are also the Minor Counties Association, the Irish Cricket Union, the Scottish Cricket Union and the Welsh Cricket Association.
- **1989** The International Cricket Conference renamed the International Cricket Council.

Cricket Umpires are widely considered to be conservative, dour, humorless, characters that never seem to be enjoying themselves. They are mostly forgotten (or at least barely tolerated) until there is a flurry of bats, pads, balls and stumps with the famous "Howzat" appeal quickly following. At that crucial moment all eyes are on the umpire and a spilt second decision must be made. Television replays and cricket commentators will show no mercy in their judgment of the umpire.

For as long as cricket has been played there have been independent umpires to ensure observance of its Laws, with scorers to record accurately what happens on the field. Independent officials ensure that the game is played fairly,

- They are not interested in who wins. Nor does it matter to them who arrange the match

- how many spectators there are
- where they come from and who they support
- what they paid for the cricket tickets
- how much prize- money is at stake,
- What the TV rights cost or whether the 'star player' pleasure the crowd with a dashing century or is bowled first ball for a duck.

These are the business of the governing body of the game, the league administrators, the competition organizers, the sponsor, the club treasure, the team manager, coach, captain and the players. They are not the concerns of the umpires and umpires must never allow themselves to be compromised by such influences. The game needs genuinely independent officials- it cannot survive credibly without them. To maintain that independence means that umpires can master only- The Laws of Cricket.

The Board of Control for Cricket in India (BCCI), headquartered at Mumbai, India, is the national governing body for all crickets in India. The board was formed in December 1928 as BCCI replaced Calcutta Cricket Club. BCCI is a society, registered under the Tamil Nadu Societies Registration Act. It often uses government-owned stadiums across the country at a nominal annual rent[] It is a "private club consortium". To become a member of a state-level association, one needs to be introduced by another member and also pay an annual fee. The state-level clubs select their representatives (secretaries) who in turn select the BCCI officials.

As a member of the International Cricket Council (ICC), it has the authority to select players, umpires and officials to participate in international events and exercises total control over them. Without its recognition, no competitive cricket involving BCCI-contracted Indian players can be hosted within or outside the country.

In 1912, an all-India cricket team visited England for the first time, sponsored and captained by the Maharaja of Patiala, and featured the best cricketers of the time from India. In 1926, two representatives of the Calcutta Cricket Club traveled to London to attend a couple of meetings of the Imperial Cricket Conference, the

predecessor to the current International Cricket Council. Although technically not an official representative of Indian cricket, it was allowed to attend by Lord Harris, chairman of the conference. The outcome of the meeting was the MCC's decision to send a team to India, led by Arthur Gilligan, who had captained England in The Ashes. The Hindus, as well as the all-India team, performed impressively during this tour.

In a meeting with the Maharaja of Patiala and others, Gilligan praised Indian cricket and promised to press for its inclusion in the ICC if all the promoters of the game in the land came together to establish a single controlling body. An assurance was given and a meeting held in Delhi on 21 November 1927, attended by delegates, from Sindhi, Punjab, Patiala Delhi, United provinces, Rajputana, Alwar, Bhopal, Gwalior, Baroda, Kathiawar and Central India and . A consensus was reached to create a board for control of cricket in India. Another meeting, on 10 December 1927, brought a unanimous decision to form a "provisional" board of control to represent cricket in India.

In December 1928, the BCCI was formed despite having only six associations affiliated to it as against the earlier-decided eight. R.E. Grant Govan was made its first president and Anthony De Mello its first secretary.

The BCCI organizes the following domestic cricket competitions in this order:

- BCCI Corporate Trophy
- Syed Mushtaq Ali Trophy
- Irani Cup
- NKP Salve Challenger Trophy
- Ranji Trophy
- Duleep Trophy
- Vijay Hazare Trophy
- Deodhar Trophy
- Indian Premier League (IPL)
- Vizzy Trophy

Darrell Hair, Former Test Umpire-ICC" An Umpire's Story"-1998

The job of umpiring has never been easy, and with modern technology enabling detailed analysis of every single decision, it will inevitably become much more taxing and difficult in the future. It may seem so simple from the armchair back home but I can assure you this is not the case out there in he middle. International and Test umpires know that the making the wrong decision means that the dreaded television replays and cricket commentators will show no mercy in their judgment of the umpire from the safety of their commentary boxes on high.

Nevertheless, umpire in the 1990 knows the truth-that many of their decisions are discussed, disputed and questioned in bars after Test matches and at village greens alike.' I never touched it you know' or 'it must have been missing leg stump' being all too familiar refrains. Cricket has given me a thoroughly enjoyable but sometimes rollercoaster ride through life.

David Whiley," The Art and Technique of Cricket Umpiring"- 1971

An umpire is a man who, for six months of the year, devotes his leisure time to enabling twenty two other men to enjoy themselves. He is a man who on the hottest summer day becomes a human clothes stand, and on cold April evenings thankfully moves from square leg to behind the wicket to keep his circulation going. An umpire endures the scowls and curses of many of those he has dedicated himself to serve with great self-control. Whilst it is umpire's duty to ensure that the match in which he officiates is conducted in accordance with the Laws, this must not be construed as a license for an umpire to indulge in officious behavior.

He should never forget that the match in which he is participating was primarily arranged for the enjoyment of the 22 young men who are playing- and not for his own personal benefit. Accordingly he should avoid adopting any stand or attitude which may reduce the match to face or in some other way mar the enjoyment of the players. In general the umpiring profession is held in the highest esteem and it therefore ill-behaves any member to indulge in any activity calculated to diminish this respect.

International Institute of Cricket Umpiring and Scoring, England"- IICUS, (1970)

In simplest terms, stress is the opposite of relaxation. Both positive and negative aspects of life can be equally stressful."

Stress comes from the external forces in our lives that push our buttons and provoke extreme emotions. Although we commonly think of stress coming from the frustrations and low points in life, high points and achievements are stressful as well.

Ups – Downs

Jubilation – Depression

Promotion – Termination

Marriage – Divorce

Birth – Death

Each of the above pairs of opposites has one thing in common – stress. Yet, to add to the confusion, even uncertainty can cause stress. In addition, stress can result from something as minor as breaking a shoestring or something as major as your child ruining his new expensive shoes!

Stress raises your level of adrenaline, which results in an increase in heart rate, respiration, and blood pressure. These increases make bodily organs work harder. Over the long term, reducing stress is critical to combating such illnesses as heart disease, high blood pressure, and stroke.

Stress Management Tips is all about helping you develop an effective stress management strategy. Explore the causes of stress and its symptoms. Find out how stress affects us and what you can do to reduce stress for both yourself and your family. Learn how some stress management tips, stress reliever games, and stress relieving exercises can help improve your stress management skills and help you cope with stress.

3.2 FOCUS TECHNIQUES FOR UMPIRE AND HIS PARTNER

Good umpires take responsibility for each other's focus throughout a match. The importance of constant eye contact, if possible after every ball is vital. For example, a batsman previously batting on the crease may now be taking strike a yard/meter outside the crease. Picking these instances up and relaying them to your partner is part of the concept of working as a team.

Teamwork automatically keeps you focused and leads to cohesive pair that is constantly on top of their responsibilities. Intervals in play create the most likely opportunity for lost focus. The problem is that the level of focus required is hard to re-acquire and remember common fact number 4 - focus must exist before the start/restart. Both umpires should talk about what is going to happen when play resumes, who is bowling/on strike, how many over, etc. before walking back out. Enjoy the break in play but enjoy getting back out there. During a tense period the kind of support you give and receive from your partner can be crucial in the final judgment on your performances. Some umpires like to be left alone while others may want a kick in the pants to jump-start their concentration. Make sure there is no doubt whatsoever about what level of support you or your partner need and prepare for the contingency before the game.

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Chapter – 4

GAME MANAGEMENT AND PSYCHOLOGICAL ASPECT

4.1 UMPIRING

4.2 GENERAL FITNESS – FLEXIBILITY OR MOBILITY

4.3 ROLE OF AN UMPIRE

4.4 WHAT MAKES AN UMPIRE

4.5 WHAT IS UMPIRING TECHNIQUE

4.6 A QUICK NOTE TO BECOME A CRICKET UMPIRE IN INDIA

4.7 ROLE OF UMPIRE'S COACH AND MENTOR

Chapter - 4

GAME MANAGEMENT AND PSYCHOLOGICAL ASPECT

The chapter describes the entire process of umpiring as a game mgt. technique and it is specially focusing on Umpires and their job role and function in the vitality of Cricket as a sport.

4.1 UMPIRING

The umpires are the sole judges of all matters concerning the game once the toss for innings has been made. They decide whether it is fit or unfit to play, make all decisions regarding the laws and officially check the scores at the end of the game to confirm the result.

The bowling end umpire stands in line with the wickets and makes decisions about the placement of the bowler's feet for the fairness of delivery, LBW etc. He may move up to the wicket or back if requested by the bowler, but he must be in a position to carry out his function.

When a run is being taken, the bowling umpire moves to the same side of the pitch as the ball and level with the popping crease, to get in the best position to give a decision for a run out.

The other umpire usually stands level with the popping crease at square leg. However, if the sun or fielder interferes with his view he can stand at Point. His principal function is to give decisions on stumping, run outs etc. at the strikers end.

The bowling umpire starts the game by calling "Play". After six legitimate balls he calls "Over"; at the end of play he calls "Time" and removes the bails. During the game he gives the following signals to the scorers to inform them of what is happening. There is no signal for one or more runs scored from the bat, unless a boundary is scored. No signal will be given if a batsman is not out on appeal but

The umpire will say "Not out". Umpires communicate their decisions to both players and spectators through a series of signals.

4.2 GENERAL FITNESS – FLEXIBILITY OR MOBILITY

All Umpires need to have a good range of movement in all joints. When fully warmed up or at the end of physical activity, take each limb and joint to its end position, press and hold for several seconds. Relax and repeat.

4.3 ROLE OF AN UMPIRE

Cricket is a noble game designed by the gentleman for the pleasure of the gentleman. It used to be the game of kings during the past, now it has become king of the games. Umpiring is one of most vitals, crucial and integral parts of cricket. The office of the umpire has been one of the responsible grace and dignity. Umpiring is the dries aspect of this noble game. Playing is the poetry, watching is drama and umpiring is a prose. The task of umpires is very challenging, complicated and more demanding and difficult.

4.4 WHAT MAKES AN UMPIRE

The short answer is wisdom of eighty year old in the body of an eighteen year old youth. Qualities needed are physical abilities, mental toughness and common sense besides the aspiration, ability and attitude don't late anyone tell you that umpires are not that important is the game of cricket. Bad umpiring can be soul destroying. Umpires make all the careers of all participants at first class level. The players accept and are entitled the good umpires. Good umpires must have good eyesight and hearing, integrity, a judicial mind, a good strong pair of legs, physical fitness. The ability to concentrate for long period, working knowledge, understanding and application of the laws, constancy is applying then in the spirit of the game, philosophies frame of mind that stops you carrying your problems on with you. Much of the task is about common sense and belief in our on abilities to do a difficult job. These disciplines almost cover all the demands accepted from an umpire these can be perfected by specific technique of umpiring. Good technique is the quality to cope up with aspects of the game. On the field of game knowledge of the laws, their intentions must be applied to ever changing situations. Theoretical knowledge is one thing but to apply them to make reason, competent and consistent decision from sprit, second actions under pressure is quite another spirit.

4.5 WHAT IS UMPIRING TECHNIQUE

A good technique is the ability to cope with all aspects of the game

– Preparation

– Working as a Team

– Dealing with Captains and Players

– Self Assessment

– Coping with Pressure

– Earning Respect

- Technique is method of performance; way of Accomplishing
- It is the manner and ability with which an athlete employs the technical skills of a particular act or field of endeavour.

Field Craft and Technique

1. Decision Making

All decision making must be Unhurried, give the impression of objective consideration, do not allow the Batsman to walk too far from his position before answering an appeal.

When do you raise the finger?

- Wait a moment or two (appeal to finish)
- Eye contact with the Batsman
- Eye contact with the Bowler (unless there is a need to follow the ball further) Say Not Out
- Confident and Certain when giving decisions.

2. Striker's End Umpire

- Depth at square leg – what is appropriate?
- Where do you stand in relation to the popping crease?
- Changing over Walking in – each delivery? – end of each over?
- Guard - Repeat what is requested
- Be patient
- Sightscreen – any adjustment
- Necessary – where from?
- Appropriate arm – free of hat

3. Wide Ball – Law 25

- Signaling and calling
- "Wide"
- What are some key considerations?
- Playing Conditions & Competition rules –
- How well do you know them?
- How can you improve your knowledge?

4. Bowler's End Umpire

- Where are you moving when the ball is struck into the field?
- What are the major considerations?
- Extra cover to mid wicket "arc"
- Taking off – inside leg
- Responding to calls
- Run Out / Stumping

- Watch the crease, not the bat or the stumps in the case of a close run out or stumping.
- Consult if you have any doubt about the wicket being put down fairly
- Have you considered your routine?
- When does it commence?
- Is your head still?
- What technique do you employ after the front foot lands in the delivery stride?
- Consider your depth
- Not too far behind the stumps
- Be ready and willing to work with the Bowler, but remember he (and you) have a job to do.
- Allow the Bowler *right of way*
- Be willing to work with the bowler if he wishes to know where his front foot is landing.
- Establish a consistent approach
- Be proactive if he is creeping on the line
- Rapport with Bowlers is vital in managing a match effectively

5. Managing the Protected Area

- Walking along the protected area
- Patting down the pitch
- Are these recommended practices?
- How can we best manage the protected area?
- What needs to be considered?

6. Player Management

- Calling?
- Pointing?
- Tact
- Speak when spoken to
- Pleasant, but firm
- Too much talk can irritate
- Signals
- Clear
- Can they be seen?
- Side on if necessary
- Do they conform to Law?
- Acknowledgement
- Signals- & multiple signals - In order to acknowledgement penalty runs and short runs.
- Repeat for Scorers, but not while in play

7. Remaking the wicket

- Striker's end wicket needs remaking – check alignment with partner before moving back into position
- If Bowler's end wicket is remade during an over, wait at the end of the over and ask your colleague to check it when he walks into position
- Wait until the ball is finally settled
- Stand to one side check

8. Bowled dismissal

- The ball in play
- The importance of watching it!

- Head / Eye movement from ball to crease
- Stand side on to the stumps
- Kneeling at square leg
- Back to the ball - NO!
- The ball in play
- Obligation to Hit wicket for Umpire at Striker's End
- Ignore the temptation to follow the ball too early
- Counter Fascination
- How often?
- From what distance?
- Following an Appeal
- Signaling balls
- remaining to your colleague Calling "Over"

9. Decisions

- Discussing decisions your colleague has made with the Players this is a sure way for you to lose respect.

- Teamwork
- Act together
- Before / during / after play
- Particularly when talking with Captains
- Maintain the Umpires team
- Communicating your answers to appeals
- How much to say?
- Should you offer explanations?
- When are you likely to irritate?

10. Making Notes

- Drinks interval
- End of session
- Play is suspended for any reason
- Use the Laws with commonsense

"Enjoy your Umpiring it is the best seat in the house"

4.6 A QUICK NOTE TO BECOME A CRICKET UMPIRE IN INDIA

To become an umpire, you have to qualify theory exams conducted by state sports bodies like the Delhi and District Cricket Association (DDCA). Once you qualify, you become eligible for the exams conducted by the Board of Control for Cricket in India (BCCI), and your state cricket association will endorse your candidature.

Please note, gathering information on the exam dates etc becomes easier if you are a cricket player at the state or club level. One should also ideally keep in touch with the state cricket associations' convening committee to stay updated on exams.

The profession is getting lucrative. "Initially you can make Rs. 10,000 for each day of work. There are no prerequisites in terms of educational qualifications, which is why those who can't even read the rule book of cricket claim to be umpires of local cricket matches. One should be able to read as well as understand the rules of cricket — written in English."

There are only 42 laws of cricket, but a cricket match might throw up thousands of problems which are not written anywhere. You are entrusted with the responsibility of managing 22 players," One tends to develop managerial skills through on-field experience.

How do I get there?

You have to qualify the theory and practical exams conducted from time to time by state sports bodies. You then become eligible for the exams conducted by the Board of Control for Cricket in India (BCCI) at three levels — one, two & three. After clearing the second level, you make it to the BCCI national panel and can umpire at the highest level. After your case is endorsed by the BCCI for the International Cricket Council (ICC), you can join the race to be an international umpire. But until you pass these exams, you must grab whatever opportunity comes your way to umpire — corporate match, domestic or club level.

Institutes

There is no institute which trains you to become an umpire. It's only the **BCCI National academy of Umpire's** at **Nagpur** which conducts classes before the umpire's exam. Once nominated by your state to the BCCI, you can attend these classes

What's the supply and demand?

There is enough number of umpires. Professionalism (read: quality) is required. Professional umpires should be given more weightage and matches than those who don't do a good job.

In India, workplace politics can make or mar your career. How should aspirants deal with it? That's everywhere. Only your performance should matter.

4.7 ROLE OF UMPIRE'S COACH AND MENTOR

BCCI is again committed to providing mentoring opportunities for both mentors and mentees.

Essentially mentoring is a process where one person offers help, guidance, advice and support to facilitate the learning and development of another. Unfortunately, the one thing in which a mentor cannot give you solace is as to whether you have made a correct or incorrect decision! This brief guide focuses on the practicalities of assisting you in achieving success through the development of mentoring relationships.

In a broad sense, the mentors BCCI are providing people who are willing to take a special interest in helping other umpires to achieve success. The relationship you choose to develop will have the emphasis on cooperation – not competition and the relationship exists for your primary benefit. BCCI mentors will adopt multiple roles to meet your specific needs, acting as:

- **Advisors** – they are people with career experience who are willing to share their knowledge.
- **Supporters** – they will give you emotional and moral encouragement.
- **Sponsors** – they are sources of information about (and help in) obtaining knowledge and opportunities.

In general, an effective BCCI mentoring relationship will be characterized by mutual respect, trust, understanding, and empathy. BCCI mentors are willing and able to share life experiences and wisdom, as well as technical expertise. They are good listeners, good observers, and good problem-solvers. They make an unconditional effort to know, accept, and respect your goals and interests and they will help to establish an environment in which your accomplishment is limited only by a willingness to use your mentor to unlock the full extent of your talent.

An important thing to note is that the mentor you choose to work with is not necessarily going to be your umpiring coach. A separate coaching panel has been formed and will work with the Association Development Officer and along with accredited trainers in providing with the technical and practical needs to further umpires career.

To assist umpire's performance BCCI appoints an umpire's coach and mentor. He examines all aspects of cricketing angle of umpire and also judges what the umpire has done and how he has conducted the game with sound knowledge and conceptual application of Laws. He also focuses on his skills and temperament level at the time of stressful decisions. After finishing of a day or a match, he tells them about their weak zones, which need to be improve for further participation.

Finally, you may choose to use a mentor from outside cricket and or officiating and this should be your personal choice in that regard.

How tough is it to deal with the stress of giving a decision under stress?

Like every single cricket fan on this planet, I've cursed umpires and given the finger to the gentlemen who give my heroes the digital salute. But I like to think I've grown (just a little bit) out of my previously immature reactions to them. For willy-nilly, I took Atticus Finch's advice, and walked around in an umpire's shoes. And from then on, I never viewed umpiring in the same light.

In my university days, I played a bit of casual cricket with my mates at college. Nothing too serious; our talents were limited. But Hindu College, my alma mater, was a cricketing powerhouse in the Delhi cricket scene, and there were plenty of stars to watch up close and admire. The concentration of cricketing talent in our institution meant the inter-departmental competition often afforded some of the best cricket viewing of the year. We could get close to the action, and we could see players that were Ranji, and possibly India, aspirants. The strongest departments (History, Political Science, Economics, and General Arts) were packed with members from the college team. (Unsurprisingly, the sciences were left to fight for the scraps).

One fine morning, a group of us gathered to watch Political Science take on General Arts (Indian folks will know the latter better as "the BA (Pass) boys"). The games were 40-overs a side and approximately ten players from the college side were out there in the middle, playing for the two departments.

A few overs into the game, one of the fielders trotted over to us (down at long-off) with a request. One of the umpires had to go off for a family emergency; would one of us agree to umpire? (I hasten to point out the reason the fielder had picked us was because we knew him from some friendly games earlier in the season). I eagerly volunteered; umpiring seemed like a great way to get into the thick of the action and watch it up close.

A few minutes later, I had started to regret my decision. The action out on the middle felt fast and furious; the fielders were aggressive and hortatory; a fast bowler who was constantly over-stepping didn't appreciate my no-balling; and the fielding side's captain, who came on to bowl his off-spinners, was a pesky, inquisitive, irritating type, who kept moving me around.

I was surrounded by young men, older, and bigger (make that much bigger) than me. It was noisy and even the unambiguous sounds I expected to hear out in the middle were not so clear. Bat against cloth, pad against ball, pad buckles against bat, ball against body; the sounds were a little potpourri of clicks and nips.

I felt a buzzing in my head; I was keeping track of too many things, and was worn down by the stress of feeling I might get things wrong. And I did. A batsman went down to sweep the off-spinner; the ball had pitched on off and middle. He had plonked his leg down the pitch; the ball would have spun past leg. I was worn out. I raised the finger. He glared; I averted my eyes.

Shortly thereafter, I asked to be relieved of my duties. I wanted to be back on the sidelines, smoking a cigarette, sipping a cup of tea, soaking up the beautiful Delhi winter sun. I didn't want to be hassled and harried out in the middle. I wanted to enjoy the game, damn it all.

I think my experience is instructive and it forms the basis of the following modest proposal.

An international cricketer could do with a little apprenticeship in umpiring as part of his graduation to the highest form the game. The Don studied for, and passed, an umpire's exam. In similar fashion, I propose that a pre-condition for playing in a Test should be that the player in question should have umpired in a few games; perhaps first-class games, perhaps something a level just below. (Australians could consider umpiring in the city grade competitions, for instance).

They should stand for a few days in the sun and properly soak up the hurly-burly an umpire experiences. They should experience, in no particular order: the stress of giving a decision under stress; being pressured by constant appealing; feeling like all eleven men in the fielding side dislike you and multi-tasking that would put a modern computing architecture to shame.

Perhaps then, with their felt experience of an umpire's lot under their belts, they might experience some empathy for the lot of those who "only stand and wait."

This article has written by Mr. Samir Chopra who lives in Brooklyn and teaches Philosophy at the City University of New York.

Following are the various stress situations which occurs pre, during and post match:-

A. General

- Loss of Loved one
- Financial Worries
- Work Life Balance Issues
- Target Pressure
- Too much work load
- Time Constraint
- Excess working hour
- Double Employment
- Medical Sickness
- Lack of Support from Family and Friends

B. Cricket Related

- Fear of Failure
- Competition
- Poor self Image
- Lack of Direction
- Unrealistic Expectation
- Frustration
- Existence of International Players in Opponent Side
- Previous Failures

- Fight/Misunderstanding with Team Member
- Fight/Misunderstanding/Conflict with Opponent Team Member
- Fight/Misunderstanding with Umpire

Following are the various methods by which cricket Umpires can cope up with the stress and can move on to the desired work.

- Yoga
- Meditation
- Spa
- Panchkarma
- Massage
- Forget the things you can't Change
- Discipline your thoughts
- Enjoy some quite time each day
- Listening to music
- Push away negative Influences
- Any mode of Exercise
- Laughter Therapy
- Get proper Sleep
- Avoid Overwork
- Pursuing any hobby like Singing, Dancing, Painting, Coloring
- Reading books
- Long drive
- Spending time with family
- Hang out with Friends
- Spiritual Discourse
- Adventure sports
- Alcohol Moderation

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Chapter – 5

IMPACT OF THE SYMBIOTIC RELATIONSHIPS

Chapter - 5

IMPACT OF THE SYMBIOTIC RELATIONSHIPS

Have you ever heard the phrase 'I'll scratch your back if you scratch mine'? This idea of helping someone to get some help in return is the essence of a symbiotic relationship.

Symbiosis describes close interactions between two or more different species. It is different from regular interactions between species, because in a symbiotic relationship the two species in the relationship live together. Many organisms are involved in symbiotic relationships because this interaction provides benefits to both species. However, there are types of symbiosis that are not beneficial, and may in fact harm one or both of the species.

Symbiotic relationships can be obligate or facultative. Obligate symbiosis is when two organisms are in a symbiotic relationship because they can't survive without each other. Facultative symbiosis is when the species live together by choice. There are four main types of symbiotic relationships: mutualism, commensalism, parasitism and competition.

Both Umpires and players are the key resource persons in the game of cricket, The game is incomplete without the proper involvement of them here few skills are required for both umpires and players which is necessary to give a full justice with the game and if it is not there in the individual he will not become a successful umpire :-

A. Life and Soft Skills

- Leadership and Initiative
- Staying Calm and Composure
- Verbal and Non Verbal Communication

- Conflict Management
- Discipline
- Team Work
- Patience
- Flexibility
- Co-ordination
- Implementation

B. Mental Skills

- Decision Making
- Problem Solving
- Concentration
- Judgment
- Sharp Observation
- Controlling Power
- Knowledge of Rules & Regulations
- Following Ball Movement
- Calculative Mind
- Stress Management

C. Physical Skills

- Reflexes
- Self protection from Accidents & Injuries
- Fitness
- Agility
- Athletic Body
- Stamina

- Right /Proper Response to Appeals
- Sharp Eye Sight
- Sharp Hearing
- Resistance to Pain

All above mentioned skills have symbiotic relationships between game umpires and players and affect each individual accordingly.

To be a good umpire you have to be a good person, have good people skills and have good values. Those are the things people can constantly improve upon. So it is really important going forward that we look at the right style of the person to be a match official. Not everybody is suited because it is very demanding and challenging role when we speak about the Cricket Umpires. When you do a good job, no one says anything or notices, but when you do a bad job, you get a lot of criticism and negative focus. You have the ability to deal with conflict and ability to empathize and relate to people of different backgrounds, culture and personality.

Stress often is accompanied by an array of physical reactions. These symptoms can be characteristics of mental and physical stress. The various impact of stress on Umpires can be as follows:-

- Insomnia
- Digestive Upsets
- Lump in Throat
- Increased Heart rate
- Chest Pain
- Sweaty Palms
- General Restlessness
- High Blood Pressure.
- Lack of Energy
- Fatigue
- Dizziness
- Nervousness

Cognitive Impact of Stress include:-

1. Mental slowness
2. Confusion
3. General negative attitude and thoughts
4. Constant worry
5. Your mind races at times
6. Difficulty in Concentrating
7. Forgetfulness
8. Difficulty in thinking in logical sequence

Emotional Impact of Stress include:-

1. Irritation
2. No sense of humour
3. Frustration
4. Jumpiness, over excitability
5. Feeling Overworked
6. Felling Overwhelmed
7. Sense of helplessness
8. Apathy

Behavioural Impact of Stress include:-

1. Less contact with family and friends
2. Poor work relations
3. Sense of loneliness
4. Avoiding others

Recently much has been reported about the stress and its relationship with other health problems such as blood pressure, heart attack and depression. If you do not end up identifying a method to handle your stress then it eventually can lead to a heightened sense of dysfunction. This may result in increased anxiety or a sense of depression because you are not mastering your word. Feeling depressed is a common reaction of stress.

When these symptoms are temporary, they may simply be a reflection of life's normal ups and downs, but if they persist for a longer period of time, especially after the stressful situation is passed, you may have a problem that could benefit from professional help. Since prolonged stress can impact your health, it is important to develop positive coping mechanism to manage the stress in your life.

Stress and Their Impact on Performance and Health

While playing or umpiring in game of cricket it is always a greater pressure to perform well in front of millions of people and keep the good momentum of your current value. Whenever you are on the field of play you always think about what is going to happen and how the performance will play a major part in your life. This pressure always knocks your door in every game; it doesn't mean that in what role you are either an Umpire or a player. It keeps you calling- "Where you are and what you can do in terms of your game management". Sometimes it motivates the young buddies and most of time it creates a huge pressure into their mind and on heart. That time life becomes very nasty on all over the park. Even you don't have any idea about the rights things to be done or what exactly should be prefer about the game management. In our recent days we have seen many examples like mounting up of pressure on players and cricket umpires. The latest one is Jonathan Trott. Jonathan was one of the most promising cricket players in the world of cricket. His performances were outstanding and always up to the mark. At beginning of his cricketing career he was named ICC youngest emerging player. He always performs his 100% in all his matches he used to play for England but suddenly he started to feel the great pressure on him. That is not about his cricketing skills but that is for the fear about "not performing well and not giving proper time to his family members. His career comes to end with huge mental pressure and even he felt a huge pressure while playing a country cricket match.

The Fear Story of Jonathan

Trott walks off the field after being dismissed during the Ashes series in Australia Jonathan Trott has walked away from cricket indefinitely after a relapse of his **'Stress-Related Illness'.** By Dean Wilson

The England batsman who quit the Ashes tour after one Test has now done the same following a single county championship game for Warwickshire.

The England batsman who quit the Ashes tour after one Test has now done the same following a single county championship game for Warwickshire amid fears for his health.

His determination to prove his form and fitness at the start of the season has given way to the same anxieties and emotional stresses that he felt in Australia and his career could now be over.

Despite believing that he was ready to return to the game following what he described was simply 'burnout' the reality has been far worse.

With all eyes on him and his battle to regain his England spot, Trott has found the attention difficult to cope with and after posting scores of 37 and 26 against Sussex he informed his team-mates that he would not be able to carry on.

A dropped catch standing at slip and a dismissal from a short ball from Chris Jordan would have revived memories from Australia that he perhaps wanted to keep locked away.

It is understood to have been a difficult return to cricket for Trott who had been relaxed and happy with his family until the pressures of the game returned.

While he plotted a route back to cricket and the England side, he conducted a series of interviews including a documentary on TV in which he attempted to outline his recovery from the low point of the tour.

And while there was plenty of support for his situation there were also other responses to it that hurt him deeply.

Former England captain Michael Vaughan penned a strong column in which he claimed to have felt 'conned' by Trott's apparent U-turn on his condition.

In addition the ECB were less than impressed with the batsman's decision to be so public about his plight and have kept their distance at a time when arguably he needed their help the most.

Trott has consistently been full of praise for the gentle and caring way in which Andy Flower and Hugh Morris dealt with his case in Australia, however it is unclear whether that approach has continued back in England.

At 32 Trott's career should be peaking, but instead with 49 Tests under his belt his England days are all but over and there is a very real chance that he will never pick up a bat competitively again.

The attention that would undoubtedly follow his every move should he return may well be enough to convince him that the cricketing chapter of his life is now over.

How you create your own Pressure?

Most people believe that pressure or stress is caused by what is going on around them. For example, if the batting team needs three runs off the last two balls of an innings, you might think that such a situation would naturally make anyone tense. But we know that different people react differently in the same situation, so it can't be the situation that causes the reaction, otherwise everyone would have the same reaction.

Obviously, there is something else that causes the reaction. That something else is your attitude. Here's how it works:

Situation + Attitude = Arousal Level

If you have nervous thoughts, you will feel nervous; if you have confident thoughts, you will feel confident. The key to staying calm in pressure situations is

not to change the situation, but to change the way that you think about it. You may have very little control over the situation, but you do have control over your attitude. Before we look at how to change your thoughts, let's examine the types of thoughts that create stress.

Stress-creating thoughts are usually negative and fall into two broad categories: (1) overestimating the seriousness of the situation, and (2) underestimating your ability to cope. Some examples include:

- I'll probably go out first ball.
- We must not lose.
- It would be terrible to lose.
- I must take wickets or make a big score.
- I can't stand these close finishes.
- Everyone will think I'm a loser if I do something wrong, such as drop a catch.

The Fear Story of Peter Burgoyne

Derbyshire all-rounder Peter Burgoyne has been granted an extended period of absence from Cricket. A statement released on the county's website confirmed the 20-year-old has been struggling with stress-related issues for some time.

Peter Burgoyne has been granted leave by Derbyshire and will be supported by the ECB, PCA and his county during his recovery.

Following discussions between Burgoyne, Derbyshire and the Professional Cricketers' Association it has been decided that the player should spend time away from the game to priorities his recovery. Derbyshire will work alongside the PCA to support Burgoyne throughout this process.

Chief executive Simon Storey said: “We are obviously disappointed that Peter won't be actively involved with final preparations for the new season.

“He is an exciting young cricketer with bags of potential and a promising future ahead of him.

“Unfortunately, the pressures on young cricketers trying to make it in the professional game can be very challenging to handle.

“We have a number of welfare programmes in place at the club, while the PCA and ECB also offer extensive support to players and staff.

“We've assured Peter that we will continue to do all we can to support him as he concentrates on making a full recovery.”

A former England Under-19 international, Burgoyne made the breakthrough into Derbyshire’s first team last summer, playing five LV= County Championship games and nine limited-overs matches.

Role of Stress and Depression in Cricket

When Jonathan Trott withdrew from the 2013 Ashes series downunder at the end of the first Test at Gabba, because of stress-related illness, it made everyone sit up and take notice. There had been cases of cricketers taking a break or completely quitting professional cricket due to depression or mental health issues, but none more high-profile and widely reported as this. The importance of the series (Australia had been humbled 3-0 in the preceding Ashes series held in England a few months earlier) and the ‘war of words’ before, during and after the first Test might have been the reason for Trott’s decision attracting this much attention. The Australian media had a field day ridiculing Trott, which was deplorable at best. To his credit and that of the ECB (England and Wales Cricket Board), the issue was handled with dignity.

On Thursday, June 5, Australian cricketer **Luke Pomersbach** announced his retirement from all forms of the game to concentrate on his recovery from depression. The 29-year-old left-handed batsman had represented his country in one T20 international match back in 2007-08. He was known for his attacking style of play. In the IPL (Indian Premier League) he played for Royal Challengers Bangalore and Kings XI Punjab. His decision has once again brought the role depression and stress has on the mental health of a sportsperson to the forefront.

Little progress in addressing the metal aspect of the game

Sports psychologists and mental health experts believe that the decision made by Trott last year and now Pomersbach will help other cricketers suffering from similar mental health issues to come forward and talk about it, without worrying about being ridiculed for it. **Despite all the progress sports science has made in improving the quality of the game, very little progress has been made in addressing mental health and stress-related illness. S**tigma, like a large black cloud, still looms over this facet of the game. A plethora of experts, called the support staff, travel with teams these days. There is a biomechanics expert to help bowlers perfect their action, a video analyst to identify faults in a batman's technique, and a physiotherapist to take care of every niggling injury, but none of the teams have an in-house psychiatrist or counsellor that the players can speak to when stress and depression starts getting the better of them. The 'macho' view of cricket is affecting the game terribly. A player dealing with a psychological condition isn't any less worthy than the next guy. Some teams bring in a motivational speaker before a crucial series or a tournament like the World Cup to give the players a pep talk, but it doesn't address the anxiety or nervous excitement that a player might be struggling with in his mind.

Is the game the cause?

Cricket is a game played as much in the mind as on the field. In comparison to most sports (except Chess maybe) it involves a lot of planning and tactical strategizing. Also, unlike other sports it is played for a longer duration. A typical match day is seven hours long and the practice session before the start of play or the cooling down session at the end of the day add another two-three hours to it.

The tactical preparation, the net practice, or the fitness regime doesn't prepare a player for this mental aspect. Yet in the light of recent developments it would seem that is one area the pre-match preparation should equally concentrate on. Batsmen are more vulnerable to depression, and it is quite obvious why. The bowler can get away with a bad delivery, but for the batsman one mistake is all it takes to return to the pavilion. In a Test match scenario a batsman might have to wait for a couple of days to get a chance to bat, and when the opportunity comes a bad shot or a brilliant ball or plain bad luck results in him getting out cheaply. The next time he is out to bat the notion of failure definitely lurks somewhere in the back of his mind.

The other point to ponder is does the game of cricket itself have certain characteristics that is more likely to lead a player towards depression or stress, than other games? Cricket at times can be a lonely game. A batsman at the striking end is all alone, surrounded by up to five or six opponents (in a Test match). The chances that abuses (or sledging, as it is known in cricketing parlance) are being hurled at him are high; definitely in the garb of friendly banter. For a player already suffering from depression or any other mental health conditions this can be enough to push him off the cliff. On overseas tours players often spend a couple of months at a time away from friends and family. What starts off as homesickness can quickly spiral into depression. The gruelling schedule of international cricket requires players to be in action almost throughout the year. And now the IPL eats into a significant portion of the traditional off-season.

Is it better to quit than suffer?

Sportspersons are expected to, maybe unfairly, overcome stress, nervousness and depression. It is considered to be part of a sportsperson's job description. Jonathan Trott was for quite some time one of the mainstays of the English batting line-up. He played an instrumental role in taking England to the top of the Test Cricket rankings. Over the past 2-3 years England performed exceedingly well – both as a bowling unit and batting unit – in all conditions and countries. Trott was an important member of all those conquests. As we have learned now he was troubled by depression all through this period. It didn't affect his performance. The thing to ponder is which is the cause and which the effect.

Did Trott's good performance with the bat in 2011 & 2012 keep his depression in check and did his bad run of form in 2013 trigger it once again? Or was it the other way round? With his depression in check Trott managed good performances during the past two years and as depression once again reared its ugly head it brought with it bad form. This is a crucial point to ponder, because it answers two questions. Can a player suffering from depression ensure good performance despite it? Can these bouts of depression be treated without the player having to take time off the game?

Former English pace bowler, Steve Harmison, played with depression throughout his career. He hid this behind the garb of homesickness. For him being on the field was a cure from depression, and he also liked to keep himself surrounded by people at all times**.** Harmison later admitted that he was quite close to taking a decision similar to Trott's, but was worried about the reactions such a decision would attract. He now feels it is better to quit than suffer. Marcus Trescothick's case was one of the first to receive widespread media coverage. He returned home from England's tour of India in February 2006 as clinical depression had got the better of him. Trescothick recovered and returned for the tour to Australia in November 2006, but a similar bout of anxiety, sleeplessness and homesickness forced him into returning home once again. He eventually returned to county cricket and continued playing for Somerset. Trecothick developed strategies to deal with depression, and prevent it from recurring. He realized the condition didn't have a cure, and could only be controlled.

Are Indians immune to depression?

Another curious aspect is that no Indian player, at any level, has yet spoken about depression or stress. Cricket in India is almost like a religion. The following for the game is larger than all the other Test playing nations combined. The Indian team is also perhaps the busiest team; playing without a break throughout the year. Imagine the kind of pressure or stress someone like Sachin Tendulkar had to contend with day-in and day-out. What makes the Indian cricketers immune to depression? Or is it that the stigma attached to such an admission is greater in our country, which dissuades players from even uttering the possibility of depression?

I believe it is a combination of both. India is still a close-knit society. Most of them still live with their parents and siblings, which allows them to interact with people closest to them during difficult periods. It is also true that the recognition of mental health issues is lower in India than most other cricket playing countries. Bad performances often lead to fans throwing stones at players' houses or burning their effigies. A player admitting to suffering from depression might have disastrous consequences. Take the example of Yuvraj Singh. He played an instrumental role in India winning the World Cup in 2011. He then had to battle with cancer, and came out fighting fit. But the final match of the T20 World Cup 2014 exposed the ugly side of cricket fanaticism in the country. His bad performance was blamed for India's loss and every form of ridicule was thrown at him.

First and foremost the stigma attached to depression needs to be reduced or negated. Open discussion about it is the only way. Cricket boards around the world should invite ex-cricketers like Marcus Trescothick to interact with the players. It makes more sense to begin such interactions at a junior-level. Education and creating a conducive environment will be keys to ensuring that players can talk about such issues without fear of being dropped or facing antagonism.

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Chapter – 6

DATA ANALYSIS AND INTERPRETATION

Chapter - 6

DATA ANALYSIS AND INTERPRETATION

After collection of data, the next step of any research process is that the data has to be processed and analyzed in according with the research plan. The main purpose of this analysis and interpretation is that for research work we have relevant data for making contemplated and analysis. The data analysis and interpretation starts with processing and it contains editing, coding, classification and tabulation of data that they are amenable to analysis. Generally in simple term the analysis refers to "in progress of analysis, relationships or differences supporting or conflicting with original or new hypothesis should be subjected to statistical test of significance to determine with what validity data can be said to indicate any conclusion."

The analysis of data is basically based on different types of statistical measures which describes the right shape and size of distribution and measure the relationships between two or more variables. The main stages of data analysis in any research are: 1. Categorization, 2. Frequency distribution, 3. Measurement and 4. Interpretation.

After the analysis of data the next step is Interpretation. It plays a very important role in the completion of research work. It takes the result of analysis, makes inferences and draws conclusions about the relationship. Generally it explains, to find the meaning. In simple words Interpretation refers to "The task of drawing inferences from the collected facts after analytical and experimental study". The interpretation has two main aspects such as the efforts to establish continuity in research through linking the results of a given study and the establishment of some explanatory concepts.

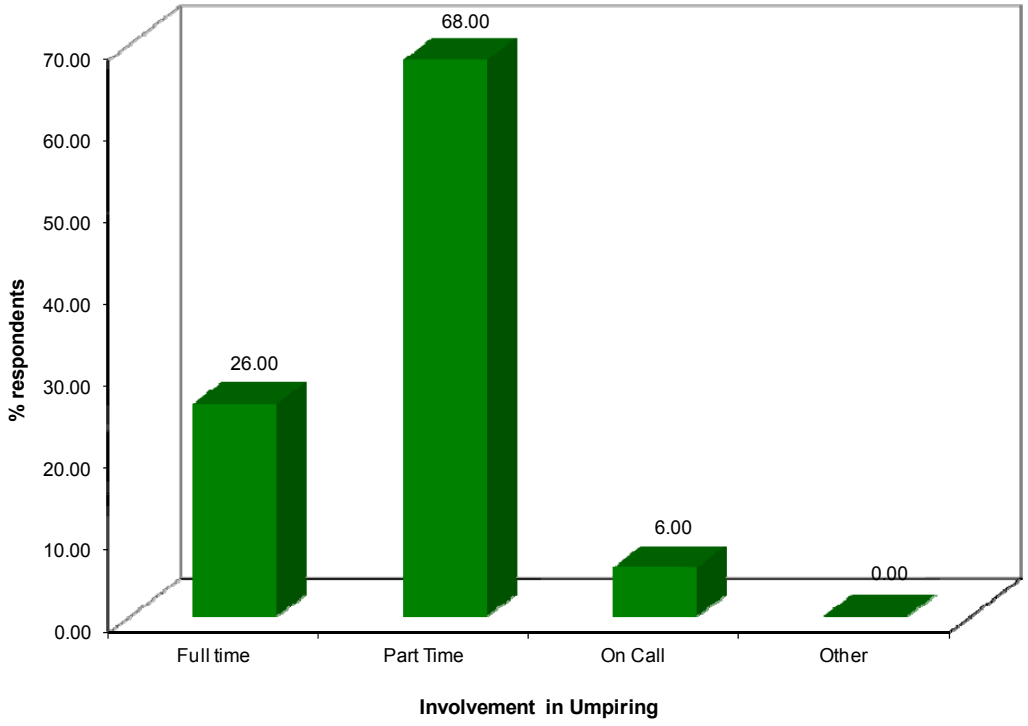
This chapter mainly focuses on the data analysis and interpretation of the present study. In this, the data are compared, analyzed or interpreted of Stress level of the Umpires and their impact and dealing before, during and after the match. For the purpose of this study various types of tables, graphs and conclusion are made which are as follows:-

Analysis of Umpire Questionnaire

PART-A

Table 6.1: Involvement in Umpiring

Response	N	%
Full time	13	26.00
Part Time	34	68.00
On Call	3	6.00
Other	0	0.00
Total	**50**	**100.00**



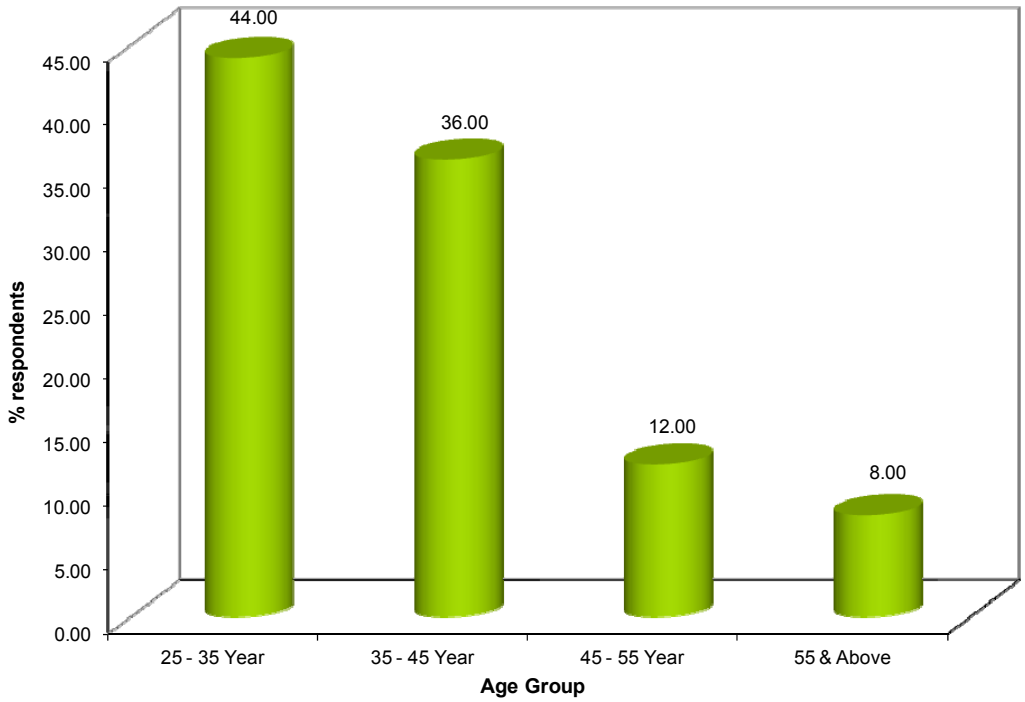
Graph 6.1: Involvement in Umpiring

Interpretation: Table 6.1 showing distribution of respondents according to their involvement in Umpiring. The respondents were asked to tick in which category they comes. Out of 50 respondents (68%) are Part Time Umpires, (26%) are Full time Umpires and only (6%) umpires are available on call.

As we can see from the Universe of Umpires also the most number of Umpire in the World are Part Time Umpire only and hence the sample is true representative of the Universe.

Table 6.2: Respondents' Age Group

Age Group	N	%
25 - 35 Year	22	44.00
35 - 45 Year	18	36.00
45 - 55 Year	6	12.00
55 & Above	4	8.00
Total	**50**	**100.00**



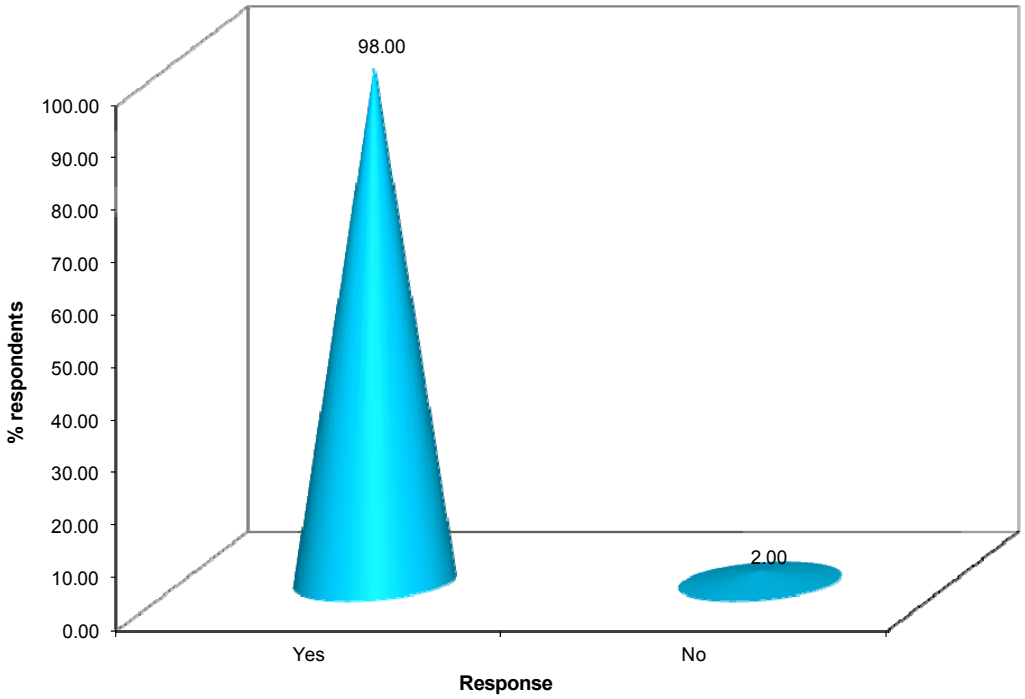
Graph 6.2: Respondents' Age Group

Interpretation: Table 6.2 showing distribution of respondents according to their Age group. The respondents were asked to tick in which age group they belong to, Out of 50 respondents (44%) are in the age group of 25-35 years, (36%) are in the age group of 35-45 years, (12%) umpires are in the age group of 45-55 years and only (8%) umpires are of the age group of 55 years and above.

Hence the largest respondents belong to Youth/Young Umpires, as the profession demands very good Physical Health & Stamina which is found maximum in this age group.

Table 6.3: Have you yourself played Cricket

Response	N	%
Yes	49	98.00
No	1	2.00
Total	**50**	**100.00**



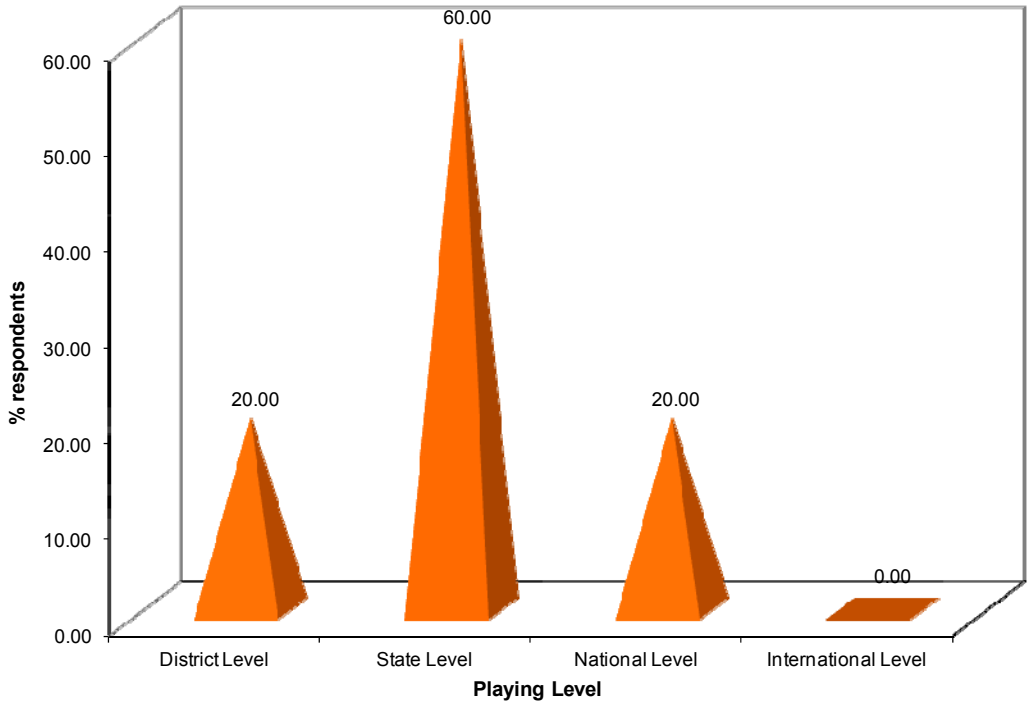
Graph 6.3: Have you yourself played Cricket

Interpretation: Table 6.3 showing the distribution of respondents in accordance with whether umpires play cricket or not, and you can see the pleasant results (98%) are the former players who are recently officiating the matches and only (2%) umpires have not played cricket.

Thus the sample represent known the all technical aspect of the game and hence have a sound knowledge of Cricket both as a Player and as an Umpire.

Table 6.4: Level on which Umpires played Cricket

Level Represent	N	%
District Level	10	20.00
State Level	30	60.00
National Level	10	20.00
International Level	0	0.00
Total	**50**	**100.00**



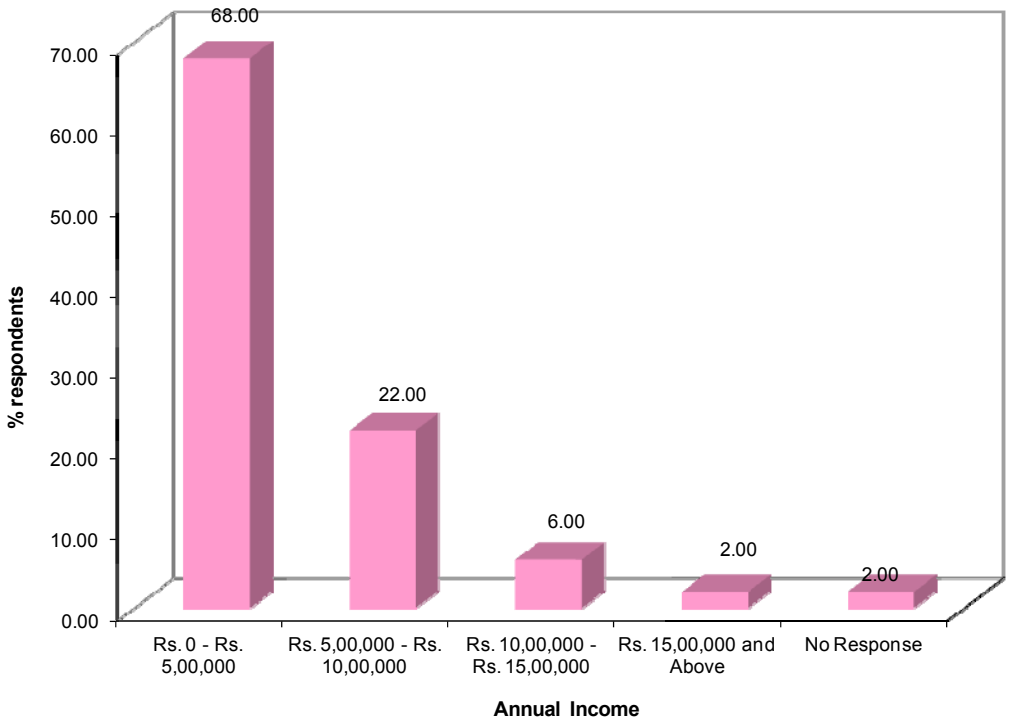
Graph 6.4: Level on which Umpires played Cricket

Interpretation: Table 6.4 showing distribution of respondents according to the level they represented while officiating matches. Out of 50 respondents (60%) umpires are State Level umpires, (20%) are National Level and District Level Umpires.

Hence you can see from the sample almost (80%) of the existing umpires of the sample have played Cricket at State and National Level, again confirming sound association with Cricket.

Table 6.5: Personal Annual Income Level

Annual Income	N	%
Up to Rs. 5,00,000	34	69.39
Rs. 5,00,000 – Rs. 10,00,000	11	22.45
Rs. 10,00,000 – Rs. 15,00,000	3	6.12
Rs. 15,00,000 and Above	1	2.04
Total	**49**	**100.00**



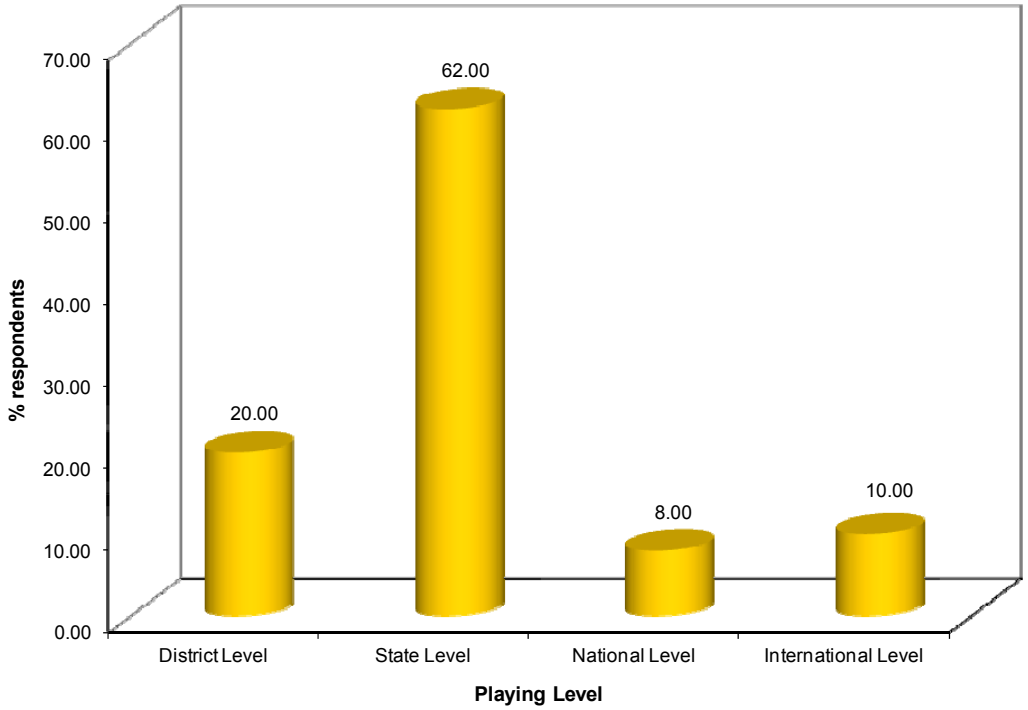
Graph 6.5: Personal Annual Income Level

Interpretation: Table 6.5 showing distribution of respondents according to their personal Annual Income level. Out of 50 respondents (69.39%) Umpires comes under the income bracket of up to Rs. 500000/- , (22.45%) umpires are comes under the income bracket from Rs. 500000/- to Rs. 1000000/- and (6.12%) are coming under the bracket from Rs. 1000000 to Rs. 1500000 and finally only 2.04% are coming above Rs. 1500000/- per annum.

Hence it is clear from the above table that almost (90%) umpires are earning up to Rs. 1000000 per annum which comes Rs.83000 per month.

Table 6.6: The Level you Represent

Playing level	N	%
District Level	10	20.00
State Level	31	62.00
National Level	4	8.00
International Level	5	10.00
Total	**50**	**100.00**



Graph 6.6: The Level you Represent

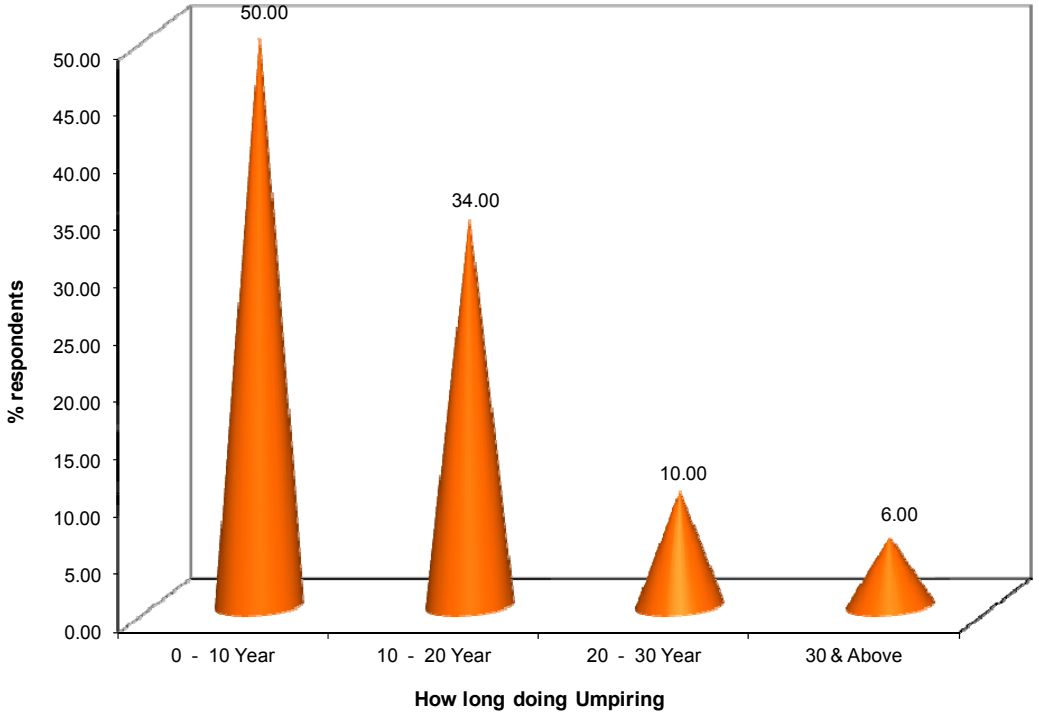
Interpretation: Table 6.6 showing distribution of respondents according to the level they represent in the Umpiring. Out of 50 respondents (62%) umpires are State Level umpires, (20%) are District Level umpires, (10%) are International umpires and (8%) are National Umpires.

Hence after going through this table we can see that Umpires who are sample respondents for this study represent a great involvement at State/ National/ International Level which shows High Skill level and Involvement.

PART-B

Table 6.7: Since how long are doing Umpiring

Duration	N	%
0 - 10 Year	25	50.00
10 - 20 Year	17	34.00
20 - 30 Year	5	10.00
30 & Above	3	6.00
Total	**50**	**100.00**



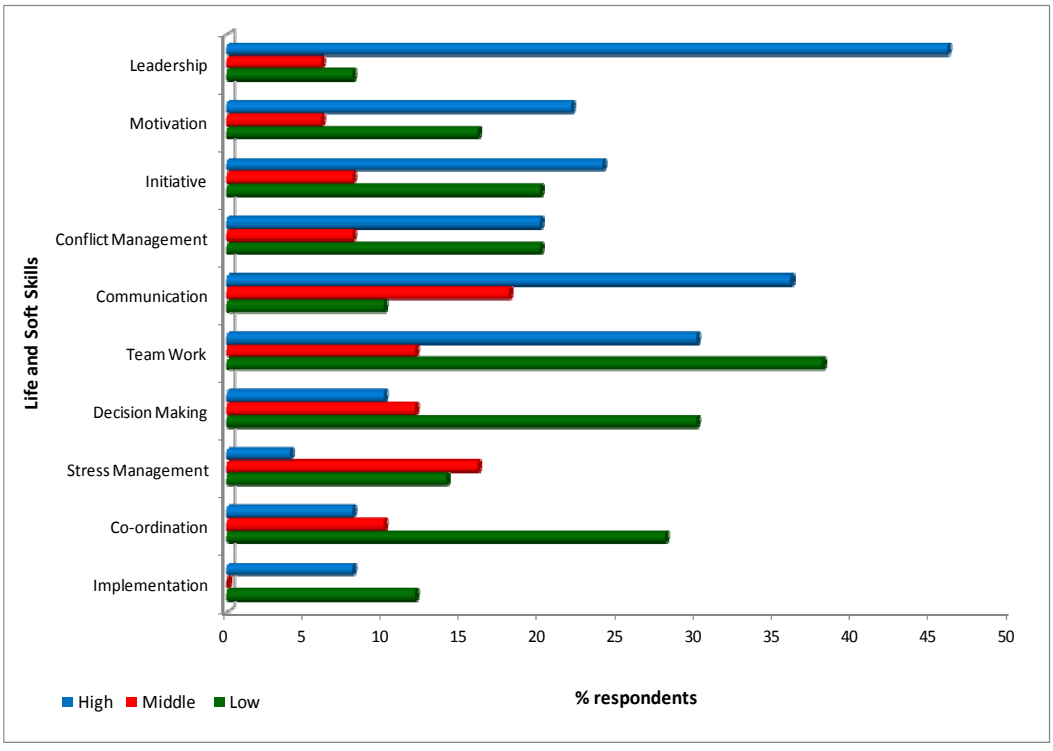
Graph 6.7: Since how long are doing Umpiring

Interpretation: Table 6.7 showing the distribution of respondents according to the time since they are doing umpiring. Out of 50 respondents (50%) are doing umpiring from last 10 years, 34% umpires are doing umpiring since 10-20 years, 10% umpires are doing umpiring from last 20-30 years and only 6% umpires are doing umpiring from last 30 years and above.

Hence we can see from the above universe that almost 50% of the respondents are having an experience of doing umpiring more than 10 years hence sample is true representative of the universe.

Table 6.8: Life and Soft Skills required for doing Umpiring

Life an Soft Skills	High	Middle	Low	Rank
Leadership	**46.00**	**6.00**	**8.00**	**3**
Motivation	22.00	6.00	16.00	6
Initiative	**24.00**	**8.00**	**20.00**	**4**
Conflict Management	**20.00**	**8.00**	**20.00**	**5**
Communication	**36.00**	**18.00**	**10.00**	**2**
Team Work	**30.00**	**12.00**	**38.00**	**1**
Decision Making	10.00	12.00	30.00	7
Stress Management	4.00	16.00	14.00	9
Co-ordination	8.00	10.00	28.00	8
Implementation	8.00	0.00	12.00	10



Graph 6.8: Life and Soft Skills required for doing Umpiring

Interpretation: Table 6.8 showing the Life and Soft Skills required in umpiring. The respondents were asked to rank top five Life and Soft Skills which is required to do umpiring. Finally these ranks were categorized in to high, middle and low

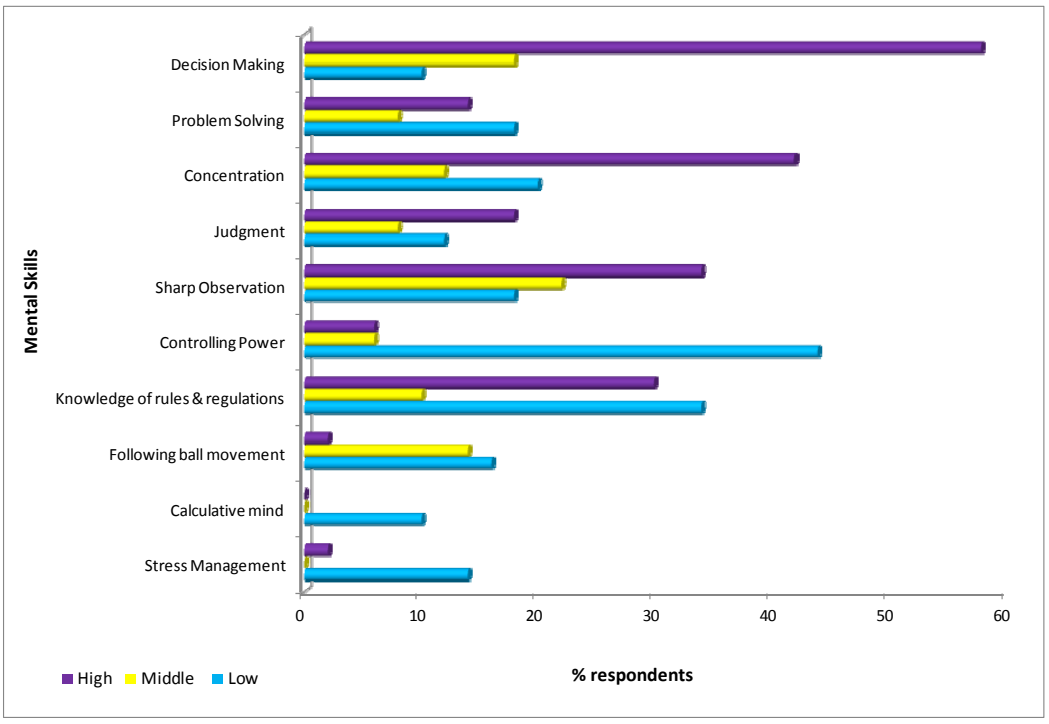
categories and respondents' % distribution is presented in the table. After % distribution final ranks were calculated so that the top life and soft skill that is required to umpiring in the opinion of respondents could be identified.

If Table 6.8 observed , the top five ranks that come out on the basis of response given by the Umpires , which is required to do umpiring are (1) Team Work (2) Communication (3) Leadership (4) Initiative and (5) Conflict Management which are shown in last column of Table No.8.

Hence it is clearly observed from the result that Umpiring is a Team Game, An Umpire alone can't run the game and that's why Team work is at ranked No. 1 by the respondents, Communication is ranked No. 2 because Communication is there, both the Umpires use the non verbal communication while the game is running so that they can support and cooperate each other, If we talk about the Leadership which respondents ranked No. 3 is necessary because being a Bowlers end Umpire you are the sole authority to give the decision and hence you have to lead from the front , Being an Umpire you have to respond the appeals of the Players and accordingly give your decisions hence you have to Initiate the things and hence it is ranked by the respondents at No. 4, Many times players get indulge with the opponent team members and at that crucial moment being an Umpire their role is most important them because it is in their duty that they will conduct the smooth game and hence conflict Management is very much necessary for them and hence respondents ranked this at No.5.

Table 6.9: Mental Skills required for doing Umpiring

Mental Skills	High	Middle	Low	Rank
Decision Making	**58.00**	**18.00**	**10.00**	**1**
Problem Solving	14.00	8.00	18.00	7
Concentration	**42.00**	**12.00**	**20.00**	**2**
Judgment	**18.00**	**8.00**	**12.00**	**5**
Sharp Observation	**34.00**	**22.00**	**18.00**	**3**
Controlling Power	6.00	6.00	44.00	6
Knowledge of Rules / Regulations	**30.00**	**10.00**	**34.00**	**4**
Following ball movement	2.00	14.00	16.00	8
Calculative mind	0.00	0.00	10.00	10
Stress Management	2.00	0.00	14.00	9



Graph 6.9: Mental Skills required for doing Umpiring

Interpretation: Table 9 showing the Mental Skills required in doing Umpiring. The respondents were asked to rank top five Mental Skills which is required to do umpiring. Finally these ranks were categorized in to high, middle and low

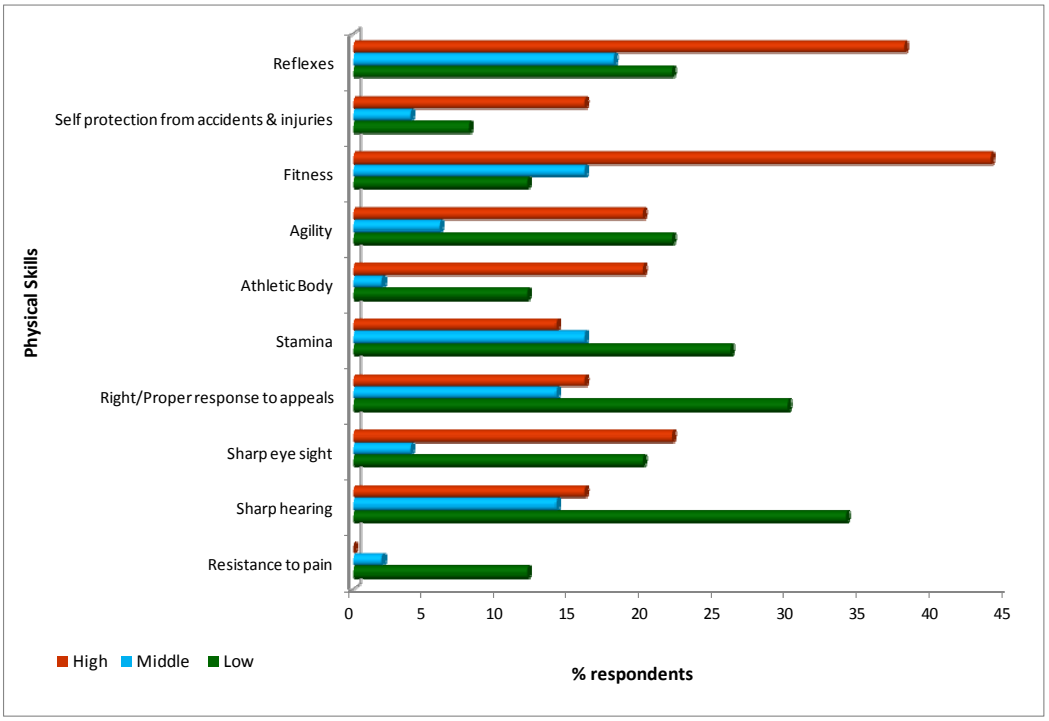
categories and respondents % distribution is presented in the table. After % distribution final rank were calculated so that the top Mental Skills that is required to do umpiring in the opinion of respondents could be identified.

If Table 6.9 observed, the top five ranks that come out on the basis of response given by the Umpires, which is required to do umpiring are (1) Decision Making (2) Concentration (3) Sharpe Observation (4) Knowledge of Rules and Regulations and (5) Judgment which are shown in last column of Table No. 6.9.

Hence it very much clear from the above table that Umpiring is art of quick decision and hence Respondents ranked Decision Making at No. 1 because result of the game is depend upon the umpires decision hence he has to be very fair enough while giving the decision, If an Umpire is not able to Concentrate on the game he is not able to give right decision on time and it can change the scenario of the game and hence respondents ranked Concentration at No.2, After delivering the ball an Umpire has only 3-4 seconds to give the decision and in this 3-4 seconds time he has to observe or analyze so many things hence therefore respondents ranked Sharp Observation at No.3, Officiating the cricket matches is one of the toughest job in the world because you have take care of the MCC laws and Playing Condition of the Host County and if an Umpire is not having a proper knowledge of these Laws and playing conditions he is not doing justification with his role and that is the main reason why respondents choose the Knowledge of Rules and Regulation at No.4,and lastly Respondent choose Judgment at No.5 because it is not sufficient to become an Umpire that you need to have Knowledge of Laws and playing Conditions but besides that you must give the right Judgment because one wrong decision of Umpire can change the result of the game.

Table 6.10: Physical Skills required for doing Umpiring

Physical Skills	High	Middle	Low	Rank
Reflexes	**38.00**	**18.00**	**22.00**	**2**
Self protection from Accidents & Injuries	16.00	4.00	8.00	9
Fitness	**44.00**	**16.00**	**12.00**	**1**
Agility	20.00	6.00	22.00	7
Athletic Body	20.00	2.00	12.00	8
Stamina	**14.00**	**16.00**	**26.00**	**3**
Right/Proper response to appeals	**16.00**	**14.00**	**30.00**	**4**
Sharp Eye sight	**22.00**	**4.00**	**20.00**	**5**
Sharp Hearing	**16.00**	**14.00**	**34.00**	**5**
Resistance to pain	0.00	2.00	12.00	10



Graph 6.10: Physical Skills required for doing Umpiring

Interpretation: Table 6.10 showing the Physical Skills required in doing umpiring. The respondents were asked to rank top five Physical Skills which is required to do umpiring. Finally these ranks were categorized in to high, middle

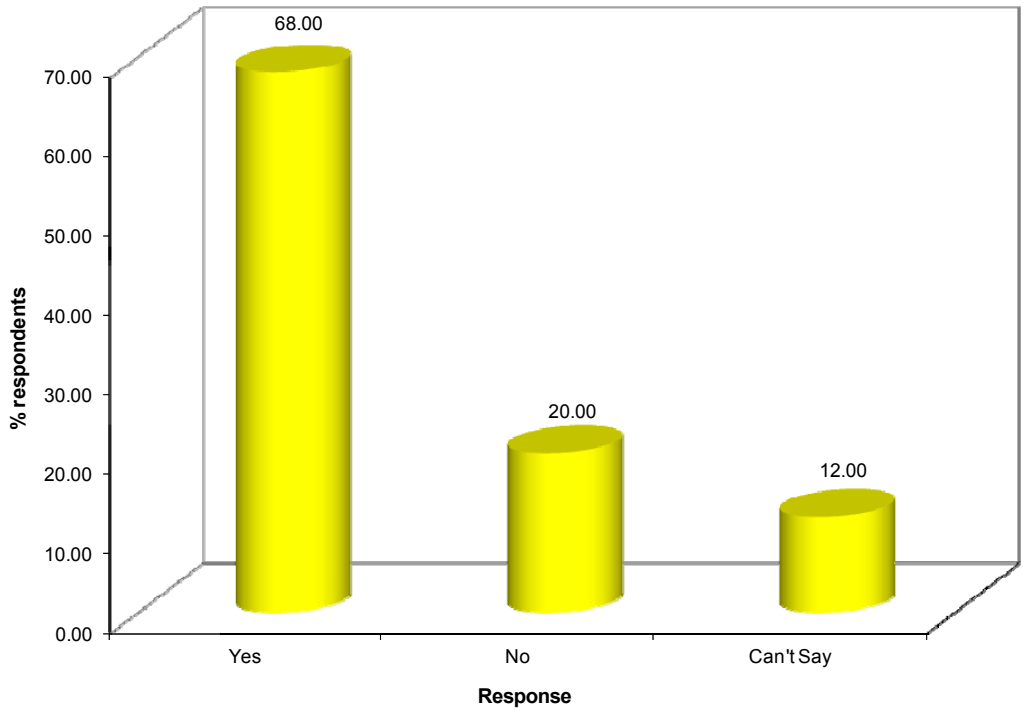
and low categories and respondents % distribution is presented in the table. After % distribution final rank were calculated so that the top Physical Skills that is required to do umpiring in the opinion of respondents could be identified.

If Table 6.10 observed , the top five ranks that come out on the basis of response given by the umpires , which is required to do umpiring are (1) Fitness (2) Reflexes (3) Stamina (4) Right/Proper response to appeals and (5) Sharpe eye sight and Sharp Hearing which are shown in last column of Table No. 6.10.

Hence it is very much clear from the above table that if Umpire is not physically fit, he can't stand for a long duration because while Officiating the match an Umpire has to stand at least 6 Hours in a day , and that is the only reason why Respondents ranked No. 1 to fitness, Similarly Reflexes is also necessary because you have to come quickly on the right position to give the decision, after that Stamina comes because Umpires are standing there for a long duration and if they don't have stamina how can they stand and definitely it will affect his decision also and hence respondents realize this and ranked Stamina as a major Physical Skill, While game is going on there are presence of so many appeals towards the opponents to get them out and if Umpire is not able to respond those appeals properly he is not doing the right judgment with his role and hence respondents realize this thing and they Ranked No. 4 to Right/Proper response to appeals, Lastly Sharp eye sight and Sharp Hearing is essential for the Umpires to Observe so many things while delivering the ball because within 3-4 seconds an Umpire has to observe so many things and has to give their decision on that.

Table 6.11: Is Physical & Mental stress is a Hindrance to do Umpiring

Response	N	%
Yes	34	68.00
No	10	20.00
Can't Say	6	12.00
Total	**50**	**100.00**



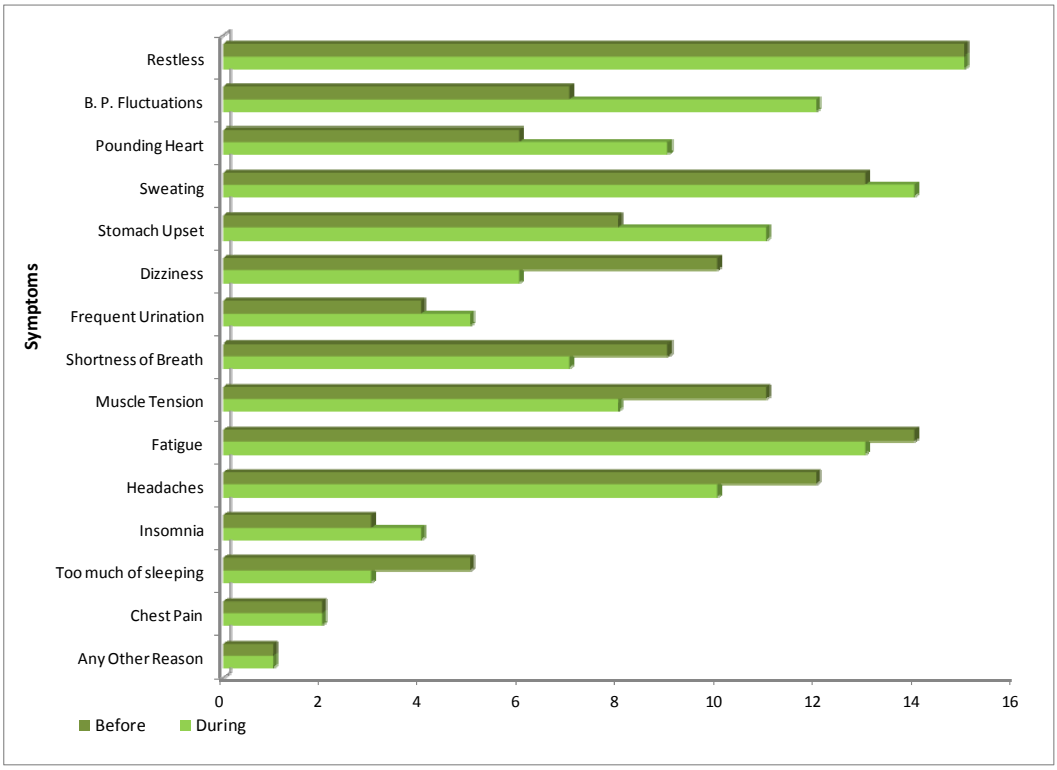
Graph 6.11: Is Physical & Mental stress is a Hindrance to do Umpiring

Interpretation: Table 6.11 showing the distribution of respondents according to the existence of Physical and Mental Stress is a Hindrance to do umpiring. Out of 50 respondents (68%) give their agreement on the above question that physical and mental stress is a hindrance to do umpiring, (20%) respondents are not agree with the above statement whereas (12%) Respondents are neither say yes nor say no.

Hence it is very much clear from the above table that there is a presence of Stress is as high as 74% in the respondents if they are having Physical and Mental Stress.

Table 6.12: Physical Stressors before and during doing umpiring

Symptoms	Rank	
	Before	During
Restless	**1**	**1**
B. P. Fluctuations	**9**	**4**
Pounding Heart	10	7
Sweating	**3**	**2**
Stomach Upset	**8**	**5**
Dizziness	6	10
Frequent Urination	12	11
Shortness of Breath	7	9
Muscle Tension	**5**	**8**
Fatigue	**2**	**3**
Headaches	**4**	**6**
Insomnia	13	12
Too much of sleeping	11	13
Chest Pain	14	14
Any Other Reason	15	15



Graph 6.12: Physical Stressors before and during doing umpiring

Interpretation: Table 6.12 showing the Physical Stressors Before and during the game of Cricket. The respondents were asked to rank top five physical stressors out of the list of 15 physical stressors before and during the umpiring.

If the present table is observed the top five ranks that came out on the basis of response given by the umpires which they feel as a physical stressors Before the game are (1) Restless (2) Fatigue (3) Sweating (4) Headaches (5) Muscle Tension.

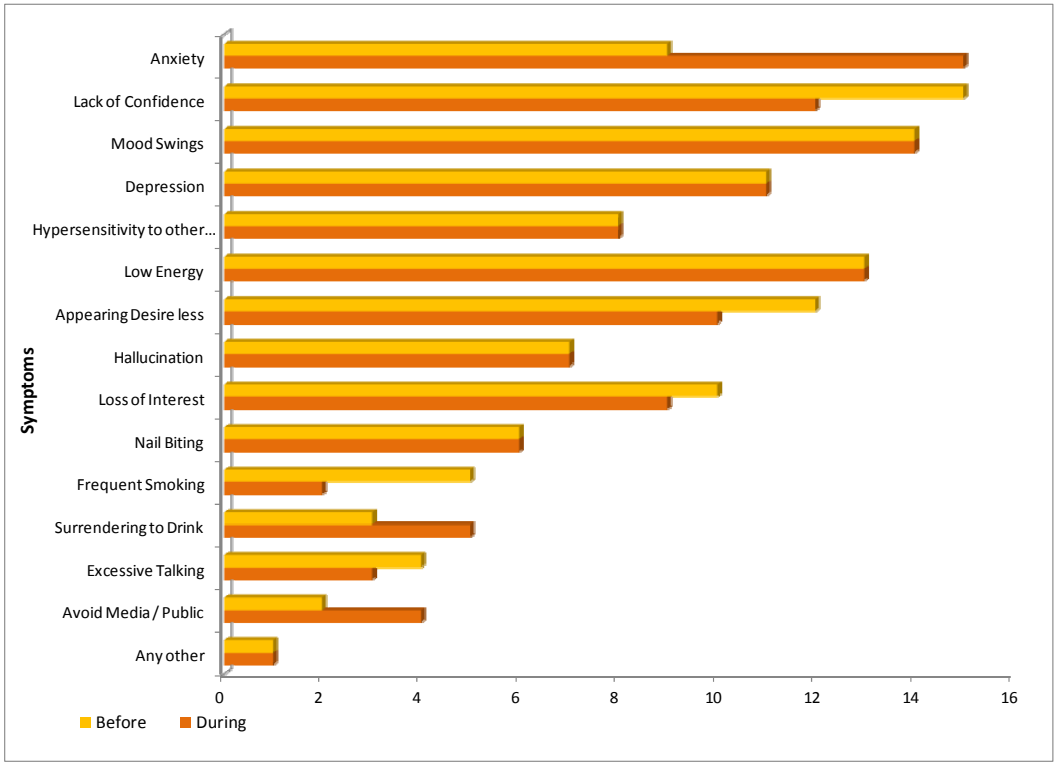
Whereas during the game the umpires give top five ranks to the following which are (1) Restless (2) Sweating (3) Fatigue (4) B.P. Fluctuation (5) Stomach Upset.

We can see the changes in the physical stressors before and during the game, Restless is at 1st place before the game is stands on the same position 1st place during the game, similarly we can see the visible difference in place of B P Fluctuation which is at 9th place before the game and took the 4th place during the game, it shows that during the game respondents feel much stress compare to before the game, Dizziness which is at 6th place before the game moves on to 10th place during the game, Pounding Heart which hold the 10th place before the game took 7th place during the game. Similarly there is no change in the position of Chest Pain before and during the game.

Hence it can be concluded that the Physical Stressors change into a large extent before and during the game.

Table 6.13: Mental Stressors before and during doing Umpiring

Mental Stressor	Rank	
	Before	During
Anxiety	**7**	**1**
Lack of Confidence	**1**	**4**
Mood Swings	**2**	**2**
Depression	**5**	**5**
Hypersensitivity to other Criticism	8	8
Low Energy	**3**	**3**
Appearing Desire less	**4**	**6**
Hallucination	9	9
Loss of Interest	6	7
Nail Biting	10	10
Frequent Smoking	11	14
Surrendering to Drink	13	11
Excessive Talking	12	13
Avoid Media / Public	14	12
Any other	15	15



Graph 6.13: Mental Stressors before and during doing Umpiring

Interpretation: Table 6.13 showing the Mental Stressors before and during the game of Cricket. The respondents were asked to rank top 5 mental stressors out of the list of 15 mental stressors before and during the game.

If the present table is observed the top five ranks that came out on the basis of response given by the umpires which they feel as a Mental stressors before the game are (1) Lack of Confidence (2) Mood Swing (3) Low energy (4) Appearing Desire Less and (5) Depression.

Whereas during the game the players give top five ranks to the following which are (1) Anxiety (2) Mood Swing (3) Low energy (4) Lack of Confidence and (5) Depression.

We can see the changes in the mental stressors before and during the cricket. We can see the huge change in place of Anxiety which is at 7th place before the game and moves on to the 1st place during the game, it shows that during the game there are so many respondents which feel presence of anxiety. Table 6.13 also shows the change of Lack of Confidence which is at 1st place before the game and moves on to 4th place during the game because as game progress the respondents feel comfortable in the game where as before the start of the game they feel lack of confidence. There is no change in the rank of Mood Swing, Depression, and Hypersensitivity to other criticism, Low Energy, Hallucination, and Nail biting before and during the game.

There is a non – significant relation between Physical Stressors before and during the match for Umpires.

Physical Stressors (Before and During)

N	r	Result
15	0.850	***

Spearman's rank Correlation was applied between Physical Stressors before and during the game. Table shows the Highly Significant Correlation was found ($r= 0.850$, $p<0.001$) for Umpires between Physical Stressors before and during the game. This shows that almost same Physical stressors are present in the severity for an Umpire before and during the game.

Hence, the Null Hypothesis is rejected.

There is a non – significant relation between Mental Stressors before and during the match for Umpires.

Mental Stressors (Before and During)

N	r	Result
15	0.879	***

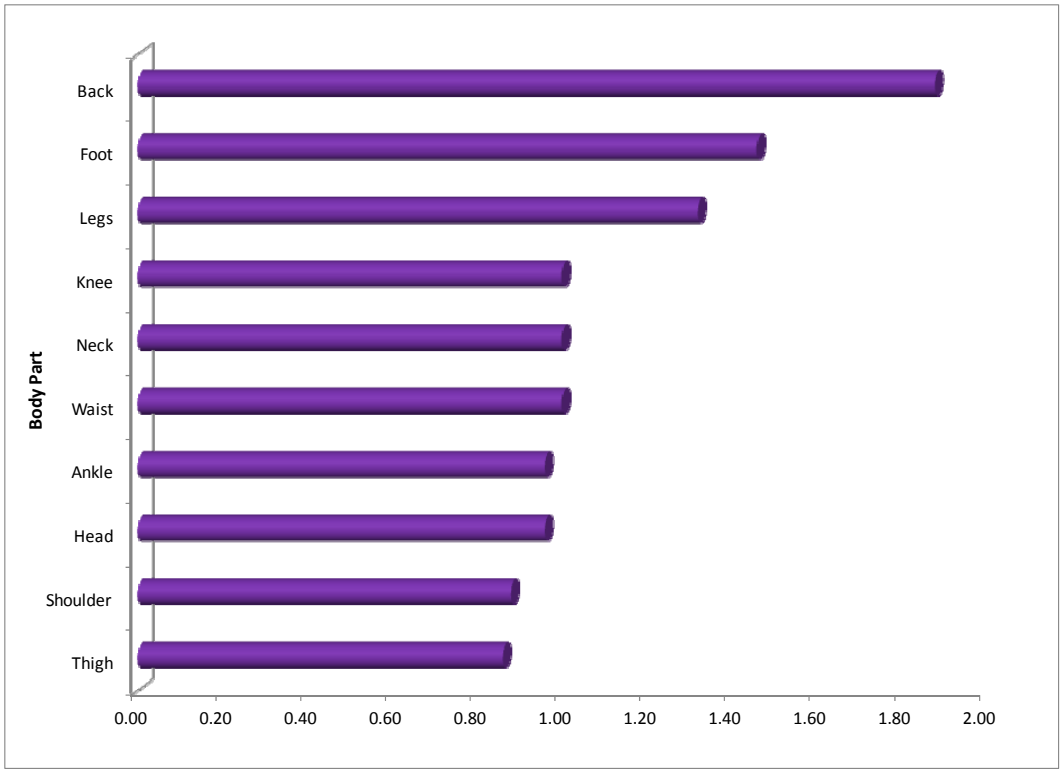
Similarly Highly Significant Correlation was found ($r= 0.879$, $p<0.001$) for Umpires between Mental Stressors before and during the game. This shows that almost same Mental Stressors are present in the severity for an Umpire before and during the game.

Hence, the Null Hypothesis is rejected.

Hence concluding it can be said that almost same Physical and Mental Stressors work before and during the game for Umpires and no difference in the severity of a particular stressor was found before and during the game.

Table 6.14: Body part which they feel most Stressed after the Game

Body Part	High	Medium	Low	Rank
Ankle	18.00	6.00	2.00	7
Foot	**16.00**	**10.00**	**26.00**	**2**
Knee	**16.00**	**6.00**	**6.00**	**4**
Legs	**20.00**	**6.00**	**12.00**	**3**
Arm	12.00	0.00	4.00	13
Shoulder	4.00	6.00	34.00	9
Neck	**12.00**	**10.00**	**14.00**	**4**
Head	10.00	10.00	12.00	7
Eyes	10.00	6.00	14.00	12
Elbow	2.00	4.00	8.00	15
Wrist	4.00	4.00	4.00	15
Toes	2.00	4.00	12.00	14
Thigh	10.00	6.00	16.00	10
Calf	8.00	10.00	12.00	11
Heel	0.00	2.00	2.00	18
Shin	0.00	2.00	8.00	17
Back	**36.00**	**4.00**	**8.00**	**1**
Waist	**20.00**	**2.00**	**4.00**	**4**
Fingers	0.00	2.00	2.00	19
Other	0.00	0.00	0.00	20



Graph 6.14: Body part which they feel most Stressed after the Game

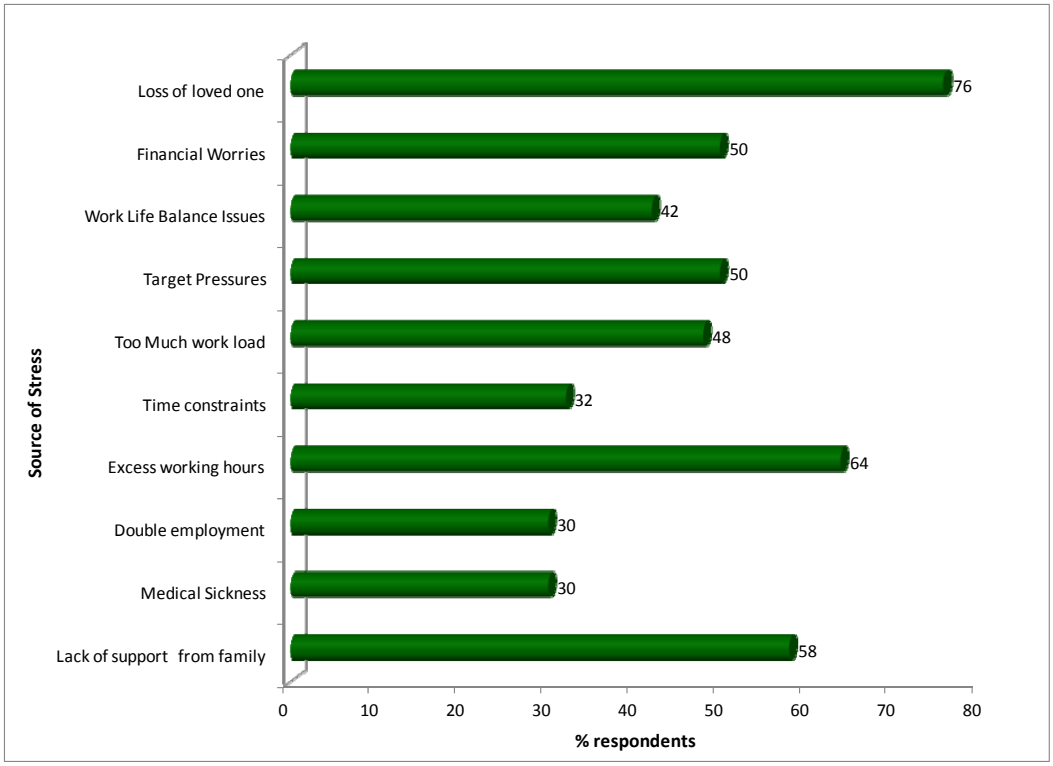
Interpretation: Table 6.14 showing the part of the body of the umpire which is feeling most stressed after the match. The respondents were asked to rank top five parts of the body which they feel most stressed after the match. Finally these ranks were categorized in to high, middle and low categories and respondents % distribution is presented in the table. After % distribution final rank were calculated so that the top five parts of the body in the opinion of respondents could be identified.

If Table 6.14 observed , the top five parts that come out on the basis of response given by the players , which is most stressed after the match are (1) Back (2) Foot (3) Legs (4) Waist, Neck and Knee which are shown in last column of Table No. 6.14.

Respondents have given their first preference to Back because they have to stand at least 6 hours to officiate the match and after standing for this long duration they feel stress at their Back, again respondent ranked foot at second place because foot also similarly tired after the match, Throughout the match Umpire has to change their ends after per over and while giving a run out decision they have to move quickly to right position and hence their legs get stressed after the match and similarly while standing for this long hours their Waist, Knee, Neck, Ankle and Head get stressed after the match.

Table 6.15: Sources of Stress - General

General	Yes	
	N	%
Loss of loved one	38	76.00
Financial Worries	25	50.00
Work Life Balance Issues	21	42.00
Target Pressures	25	50.00
Too Much work load	24	48.00
Time constraints	16	32.00
Excess working hours	32	64.00
Double employment	15	30.00
Medical Sickness	15	30.00
Lack of support from family	29	58.00



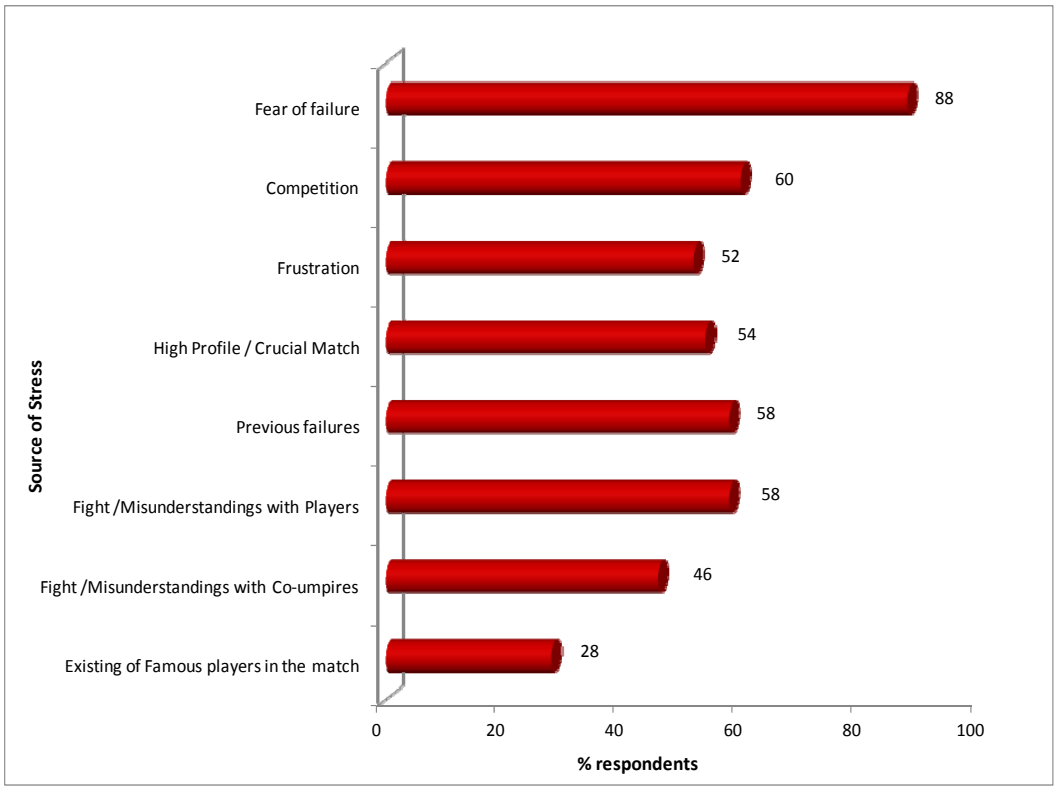
Graph 6.15: Sources of Stress - General

Interpretation: Table 6.15 showing the General sources of Stress. The respondents were asked to tick as much as they feel applicable out of the given general sources of stress. The top source of stress for umpires are Loss of loved one (76%), Excess Working Hours (64%), Lack of Support from Family (58%), Financial Worries and Target Pressure (50%), Too much Work Load (48%), Work Life Balance Issues (42%), Time Constraints (32%) and lastly Medical Sickness and Double Employment (30%).

Respondents feel stressed when they lose one of their family member and hence they are not able to perform up to the mark, their excess working hours also stopping them to perform because they feel stressed , Sometimes Umpire will not get the proper support from the family Members and hence they feel stressed, Sometimes financial worries are also a source of Stress for the Umpires because while doing Umpiring they also think that how they will come up from that situation, Most of the Umpires are doing job in Private Sector and Private jobs are Target based jobs and hence they are in stress with their Target Pressure, Too much work load is also creating a stress in respondents because it will make them tired, Sometimes they are not able to cope up in their social life and Professional life and hence Work Life Balance Issues arises , most of the time respondents wants to do Umpiring but due to lack of time they are not able to do so and that is also a source of stress for them, and lastly Medical Sickness not allowed them to do Umpiring and sometimes they are engaged in double Employment and hence they cannot officiate the Matches and it will create a Stressful situation for respondents.

Table 6.16: Sources of Stress – Cricket Umpiring Related

Umpiring Related	Yes	
	N	%
Fear of failure	44	88.00
Competition	30	60.00
Frustration	26	52.00
High Profile / Crucial Match	27	54.00
Previous failures	29	58.00
Fight /Misunderstandings with Players	29	58.00
Fight /Misunderstandings with Co-umpire	23	46.00
Existence of Famous players in the match	14	28.00



Graph 6.16: Sources of Stress – Cricket Umpiring Related

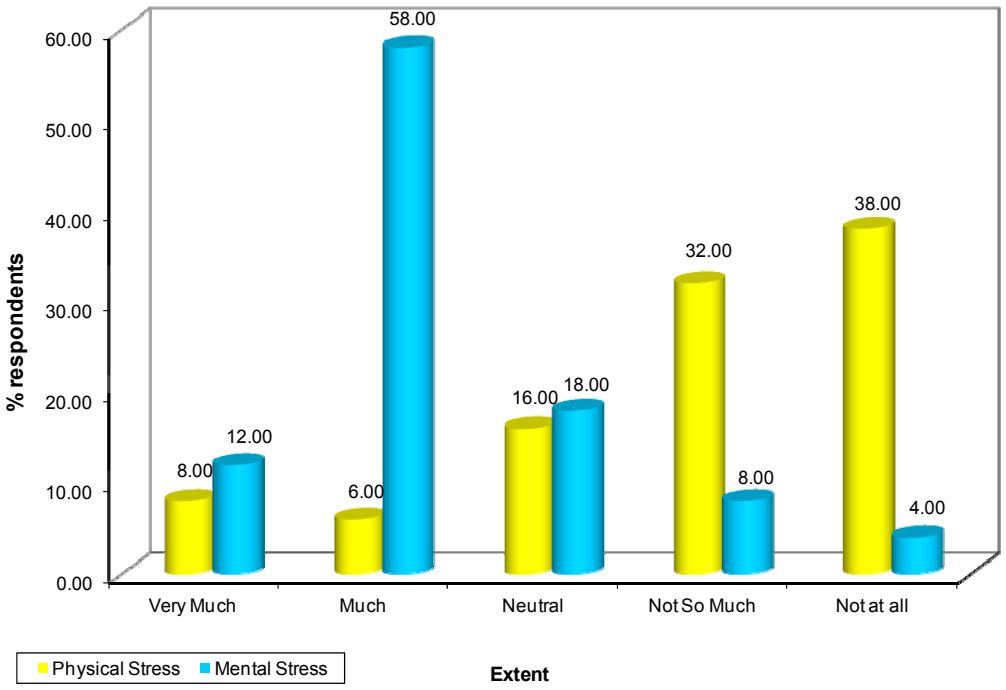
Interpretation: Table 6.16 showing the sources of Stress which are related with the Cricket Umpiring. The respondents were asked to tick as much as they feel applicable out of the given Cricket related sources of stress. The top source of

stress for umpire is Fear of Failure and (88%) shown their agreement with this factor, than next source of stress for which respondents give their agreement was Competition (60%), (58%) to Previous Failures and Fight /Misunderstandings with Players, (54%) to High Profile / Crucial Match, (46%) to Fight/Misunderstanding/Conflict with Co-umpire, (28%) to Existence of Famous players in the match.

As it is very much clear from the above table that most of the respondents feel stressed because of Fear of Failure, respondents create the pressure on themselves whether they perform their duty well or not in the match, This is in the habit of each and every Individual that he want to go on the top in his field same is the case here respondents feel stressed due to Competition , they want to perform better than their Co-Umpire, It happens so many times when in particular match you faced some wrong decisions given by you and your previous failures or mistake create a stress on you to perform in next match or sometimes during the match if players are not satisfied with the decision than they argue with Umpire and hence Misunderstanding creates between Players and Umpires and thus this situation create a Stress, Sometimes due to High Profile or Crucial Match also create a source of Stress for Umpires because these type of matches are very important from the players and tournament point of view, It happens in the match when sometime you are not satisfied with the decision given by the Co-umpire and hence because of this misunderstanding creates and its also create a source of stress among the Respondents and if any Famous player or International Player is there in the match than automatically Umpires feel stressed that they have to be more Careful while officiating the match.

Table 6.17: How much following contribute in Successful Performance - Personal

Extent	Physical Stress		Mental Stress	
	N	%	N	%
Very Much	4	8.00	6	12.00
Much	3	6.00	29	58.00
Neutral	8	16.00	9	18.00
Not So Much	16	32.00	4	8.00
Not at all	19	38.00	2	4.00
Total	**50**	**100.00**	**50**	**100.00**



Graph 6.17: How much following contribute in Successful Performance - Personal

Interpretation: Table 6.17 showing how Physical and Mental Stress contribute in Successful Performance. The respondents were asked to give their ranks on 5 point scale. Out of 50 respondents (38%) give their opinion that Physical Stress not at all contribute in successful performance, (32%) identified not so much,

(16%) respondents are Neutral and (8%) respondents are considering physical stress contribute very much in successful performance and lastly (6%) says physical stress contributes much in successful performance. Hence the maximum no. of umpire denying that Physical stress contributes in successful performance.

Out of 50 respondents (58%) give their opinion that Mental Stress contribute much in successful performance, (24%) respondents says very much, (18%) respondents are neutral, (8%) respondents are favoring not so much and lastly (4%) respondents are assuming that Mental Stress not at all contribute in successful performance.

Hence as per respondents opinion it is very much clear that if they are feeling Physical Stress than it will not contribute in their successful performance because for successful performance respondent need to be physically fit than only they can give their 100% towards their job.

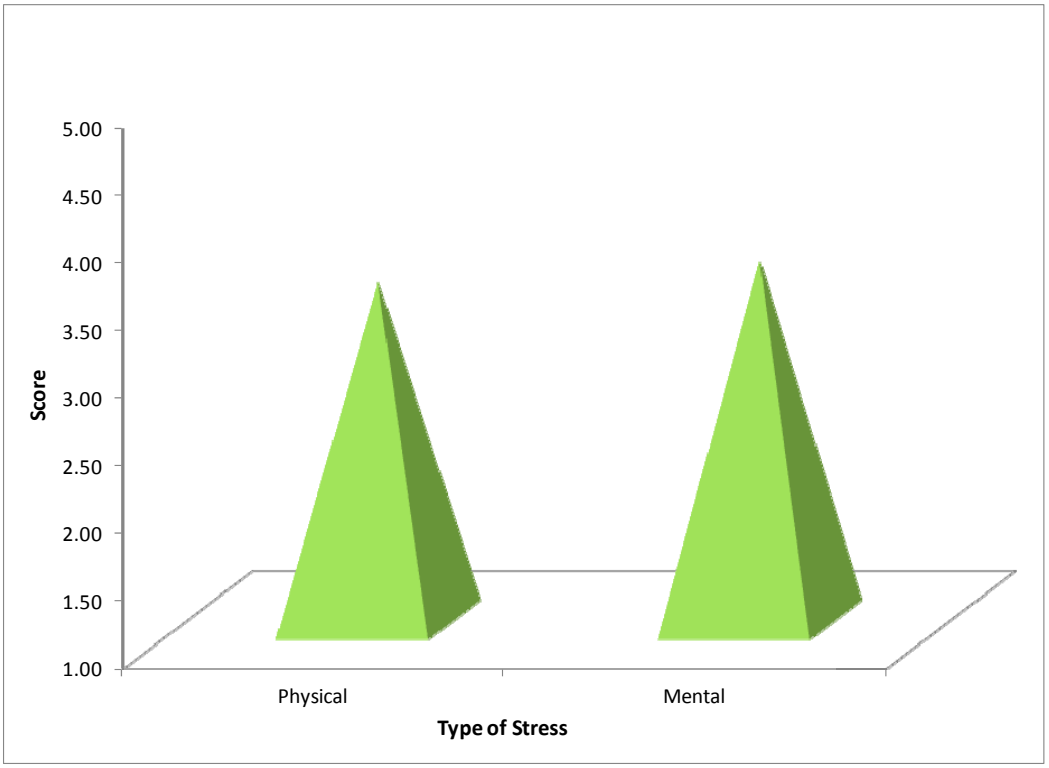
Similarly if we analyze the response of the respondents there is a opposite reaction in Physical Stress and Mental Stress, Mental Stress contributes a lot in successful performance as per the opinion of the respondents because something in their mind that they have to perform better otherwise may be they will not get a chance to prove themselves again.

If Physical & Mental Stressors are compared the Mental Stressors are more helpful in the successful performance of the umpire and here these stressor work as “Eustress”.

There is a non – significant impact of Physical and Mental Stress on successful performance for Umpires (Personal level).

How much Physical and Mental Stress Contribute in successful performance? - Personal

Category	N	Mean	SD	Z	Result
Physical	50	3.50	1.05	-0.801	NS
Mental	50	3.66	0.94		



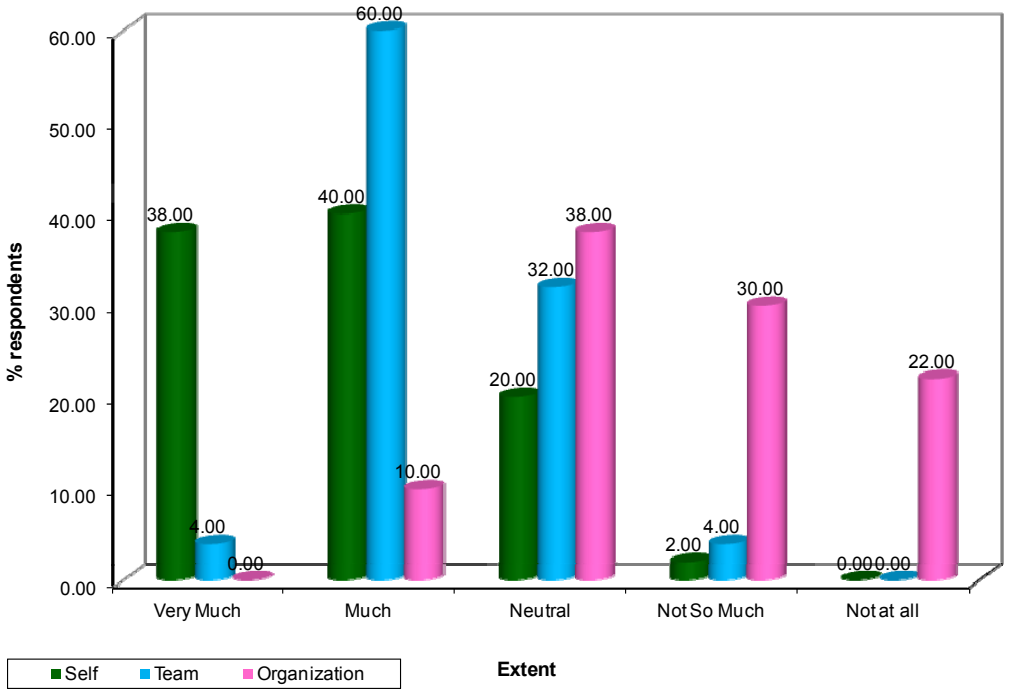
Further Z test is applied on Physical and Mental Stressors Table showing how much Stress contributes in successful performance. In comparison of Physical and Mental Stressors a Non significant difference in the severity was found which contribute in successful performance at personal level ($Z=-0.801$, $p>0.05$).

Hence it can be said that both Physical and Mental Stress contribute in successful performance.

Hence, the Null Hypothesis is rejected.

Table 6.18: How much following contribute in successful Performance - Cricket Umpiring

Extent	Self		Team		Organization	
	N	%	N	%	N	%
Very Much	19	38.00	2	4.00	0	0.00
Much	20	40.00	30	60.00	5	10.00
Neutral	10	20.00	16	32.00	19	38.00
Not So Much	1	2.00	2	4.00	15	30.00
Not at all	0	0.00	0	0.00	11	22.00
Total	**50**	**100.00**	**50**	**100.00**	**50**	**100.00**



Graph 6.18: How much following contribute in successful Performance - Cricket Umpiring

Interpretation: Table 6.18 showing how much cricket umpiring contribute in successful performance. The respondents were asked to give their ranks on 5 point scale that self extent contribute in successful performance, out of 50 respondents (40%) agreed that self contributes Much on successful performance, (38%) respondents are favoring very much, (20%) respondents are Neutral lastly (2%)

respondents are saying that self effect not so much successful performance. Hence the maximum no. of umpires is coming out of the solution that self contributes in successful performance.

The respondents were asked to give their ranks on 5 point scale that Team extent contribute in successful performance, out of 50 respondents (60%) agreed that team contributes much on successful performance, (32%) respondents are Neutral, (4%) respondents are identifying that Team contribute very much in successful performance lastly (4%) respondents are saying that Team effect not so much on successful performance. Hence the maximum no. of players is coming out of the solution that Team contributes in successful performance.

The respondents were asked to give their ranks on 5 point scale that Organization extent contribute in successful performance, out of 50 respondents (38%) are Neutral, (30%) respondents are favoring that organization not so much contributes in successful performance, (22%) respondents are favoring that organization not at all contribute in successful performance, (10%) respondents are favoring that Organization effect much on successful performance.

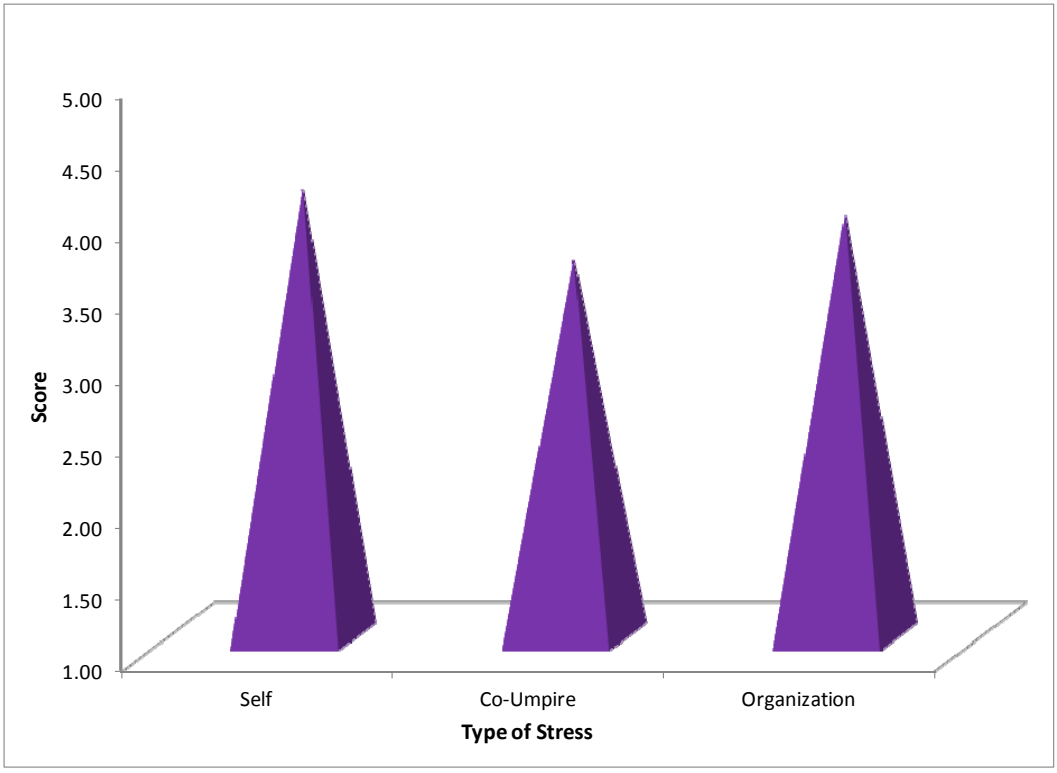
As per respondents opinion self is very much contribute in successful performance because it is in individuals hand how better he performs in difficult situation or in tough situations, The biggest factor which contributes in successful performance is Team because Cricket is a Team Game and if your team is not supporting you, you cannot go ahead and similar is the case with Umpiring Both the Umpires must Cooperate each other than only they will get succeed, and as far as organization as concern respondent don't feel that it will contribute in successful performance.

If we observe the Table 18 we will come to the conclusion as per the respondent's opinion that Team contributes very much in successful performance.

There is a non – significant contribution of Self, Team and Organization in successful performance for Umpires (Cricket related).

How much they Contribute in successful performance? - Cricket

Category	N	Mean	SD	F	Result
Self	50	4.14	0.81	4.65	*
Co-Umpire	50	3.64	0.63		
Organization	50	3.96	1.01		



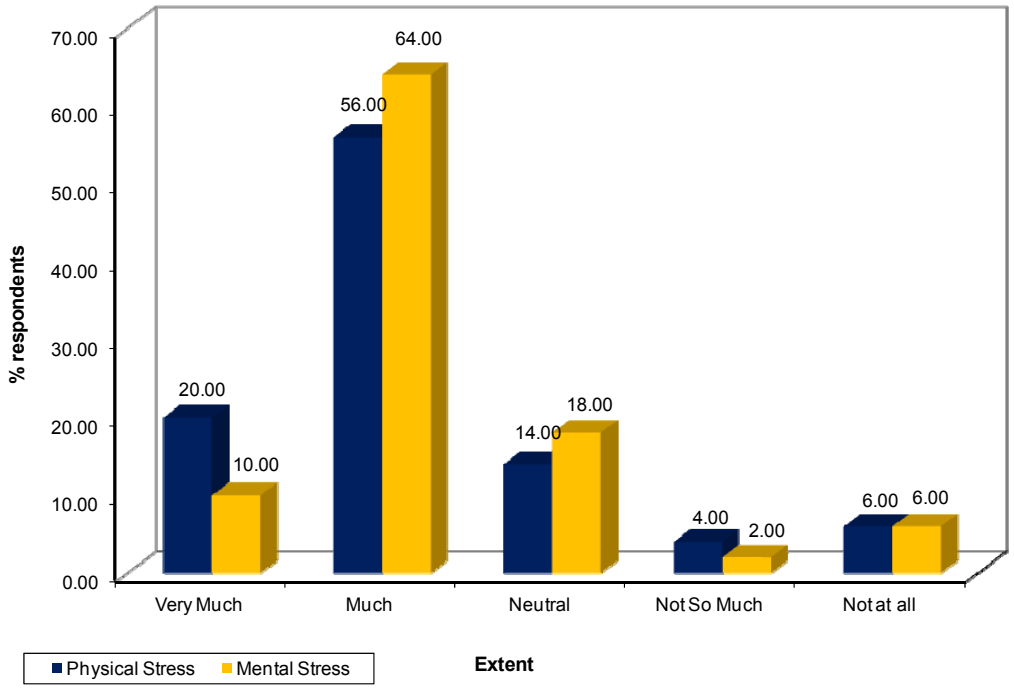
One way ANOVA was applied to check which Stress (Self, Co- Umpire and Organization) contribute more significantly in successful performance. The test result shown Significant difference (F=4.65, p=<0.05) in Self, Co-Umpire and Organization impact in effectiveness in successful performance.

The mean value shows that self factor contribute more in successful performance in comparison of CO-Umpire and organization.

Hence, the Null Hypothesis is rejected.

Table 6.19: How much following create Stress and hinder Performance - Personal

Extent	Physical Stress		Mental Stress	
	N	%	N	%
Very Much	10	20.00	5	10.00
Much	28	56.00	32	64.00
Neutral	7	14.00	9	18.00
Not So Much	2	4.00	1	2.00
Not at all	3	6.00	3	6.00
Total	**50**	**100.00**	**50**	**100.00**



Graph 6.19: How much following create Stress and hinder Performance - Personal

Interpretation: Table 6.19 showing how Physical and Mental stress create Stress and hinder performance. The respondents were asked to give their ranks on 5 point scale. Out of 50 respondents (56%) give their opinion that physical stress create much stress and hinder performance, (20%) respondents are giving their opinion that physical stress very much create the stress and hinder the performance, (14%) respondents are Neutral, (6%) respondents are not at all

comfortable in their opinion that physical stress create stress and hinder performance and lastly {4%} respondents are saying physical stress not so much create the stress and hinder the performance.

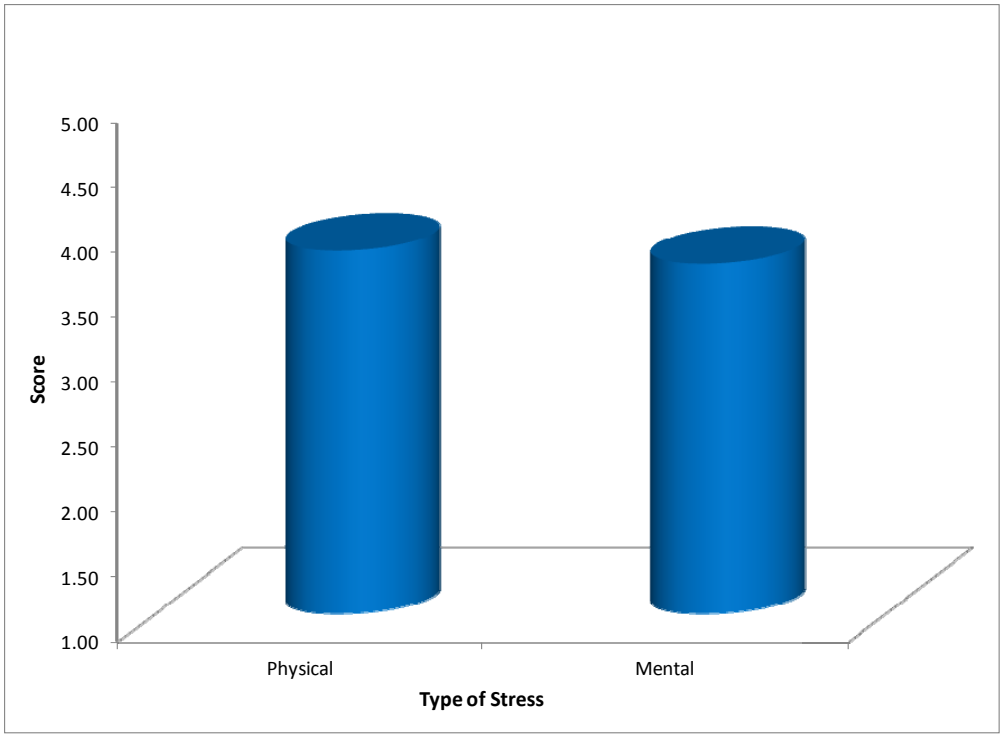
Out of 50 respondents (64%) give their opinion that Mental Stress can create much stress and hinder the performance, (18%) respondents are Neutral, (10%) respondents are favoring that mental stress very much create the stress and hinder performance, (6%) respondents are favoring not at all lastly (2%) respondents are assuming that Mental Stress not so much create stress and hinder the performance.

Hence majority of the respondents assumes that Physical Stress create so much pressure and Hinder the performance because if respondents are not physically fit how will they perform. Where as if it is compare with the Mental Stress than we will get almost same results, they feel existence of Mental Stress is also create Stress and hinder the performance.

There is a non – significant contribution of Physical and Mental Stress in hindering the performance for Umpires (Personal level).

How much they Create stress and hinder performance? - Personal

Category	N	Mean	SD	Z	Result
Physical	50	3.80	1.01	0.520	NS
Mental	50	3.70	0.91		

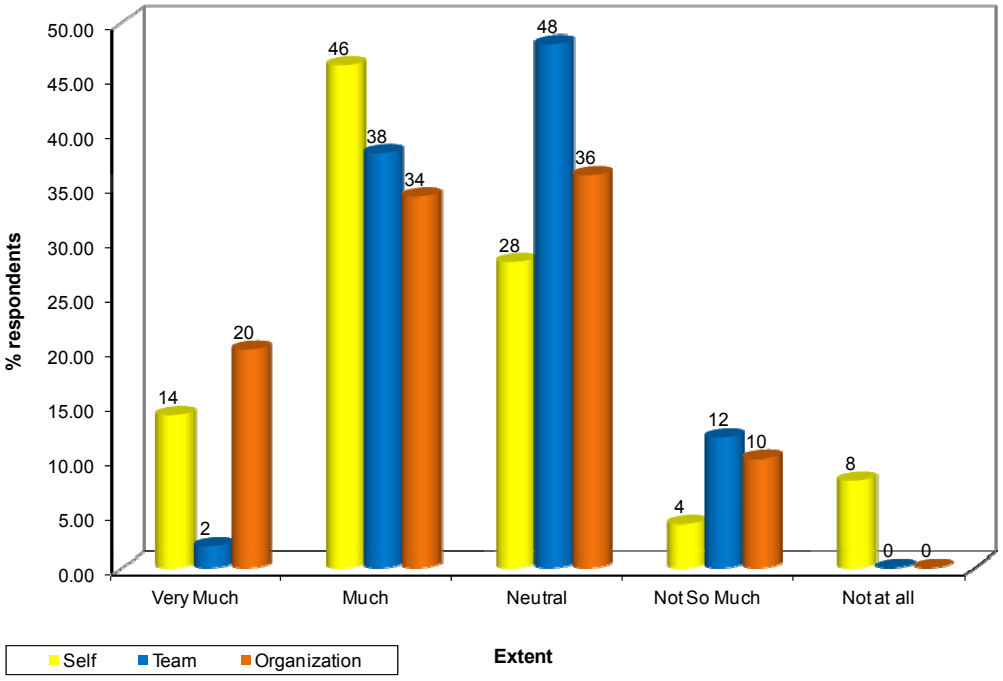


Z test is applied on while doing comparison of Physical and Mental Stressors a Non significant difference in the severity of Physical and Mental Stressors was found that hinder the performance at personal level. (Z=0.520, p>0.05). Hence it can be said that both Physical as well as Mental Stressors play their role in hindering the performance at Personal level.

Hence, the Null Hypothesis is rejected.

Table 6.20: How much following create Stress and hinder Performance - Cricket Umpiring

Extent	Self		Team		Organization	
	N	%	N	%	N	%
Very Much	7	14.00	1	2.00	10	20.00
Much	23	46.00	19	38.00	17	34.00
Neutral	14	28.00	24	48.00	18	36.00
Not So Much	2	4.00	6	12.00	5	10.00
Not at all	4	8.00	0	0.00	0	0.00
Total	**50**	**100.00**	**50**	**100.00**	**50**	**100.00**



Graph 6.20: How much following create Stress and hinder Performance - Cricket Umpiring

Interpretation: Table 6.20 showing how much cricket umpiring creates stress and hinder performance. The respondents were asked to give their ranks on 5 point scale that self extent create stress and hinder performance, out of 50 respondents (46%) agreed that self create stress much and hinder performance, (28%) respondents are Neutral, (14%) respondents are favoring very much that self create stress and hinder performance, (8%) respondents are saying that self not at all stress and hinder performance and lastly (4%) says not so much.

The respondents were asked to give their ranks on 5 point scale that Team extent create stress and hinder performance, out of 50 respondents (48%) respondents are Neutral, (38%) respondents are agreed that team create much stress and hinder performance, (12%) respondents are saying that Team effect not so much and finally {2%} are saying team cerate very much stress and hinder performance.

The respondents were asked to give their ranks on 5 point scale that Organization extent create stress and hinder performance, out of 50 respondents (36%) are Neutral, (34%) respondents are favoring much that organization create stress and hinder performance, (20%) respondents are favoring very much that Organization create stress and hinder performance and (10%) respondents are saying that Organization not so much create stress and hinder performance.

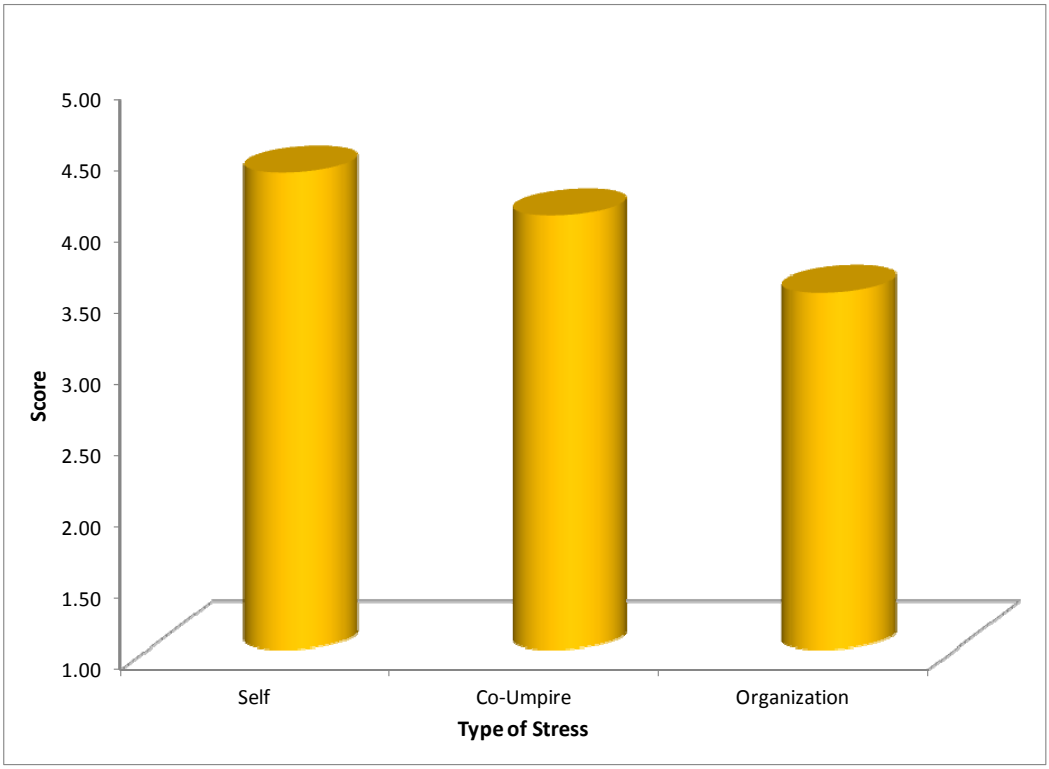
As per respondents opinion self create very much stress and hinder the performance because it is in individuals hand how better he performs in difficult situation or in tough situations, Similarly Team is also important from the point of view of success in the game because cricket is a team game whether in Umpiring or Playing and lastly Organization also a source of stress creator and Hindrance in the performance of Umpires because organization put so much work pressure on them and they are not able to come out from that pressure and hence their Performance impact as concern respondent don't feel that it will contribute in successful performance.

If we observe the Table 6.20 we will come to the conclusion as per the respondent's opinion that Team contributes very much in successful performance.

There is a non – significant contribution of Self, Team and Organization in hindering the performance for Umpires (Cricket related)

How much they Create stress and hinder performance? - Cricket

Category	N	Mean	SD	F	Result
Self	50	4.34	0.82	1.863	NS
Co-Umpire	50	4.04	0.81		
Organization	50	3.50	1.02		



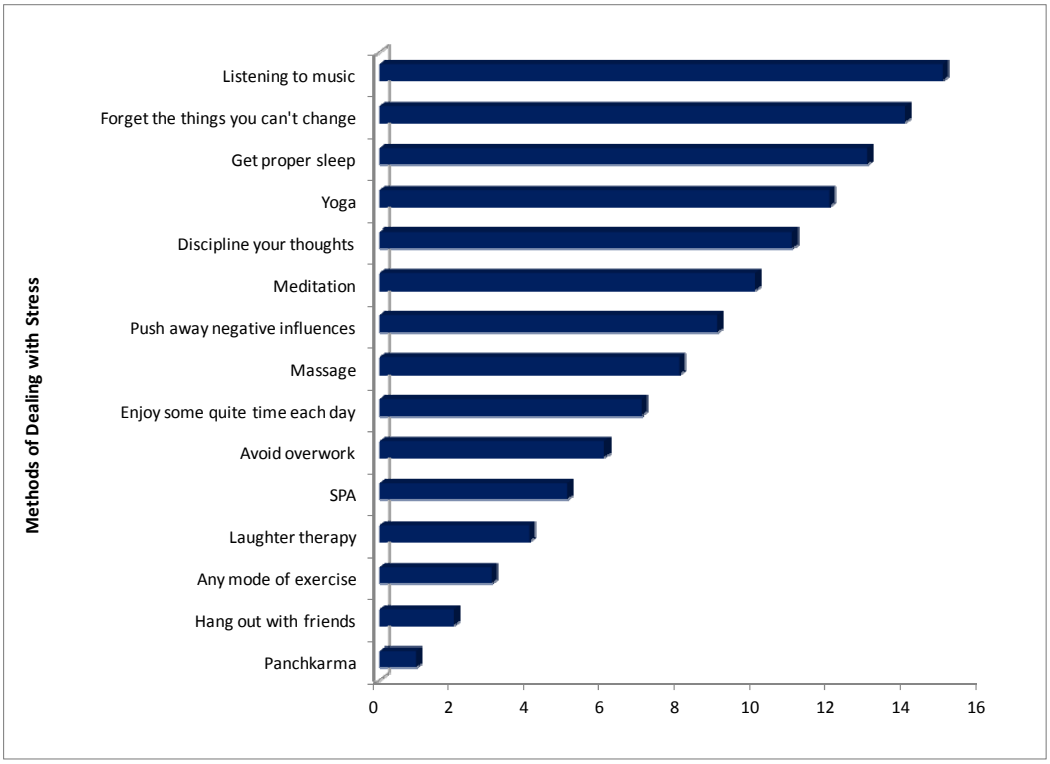
The above table showing how much they create Stress and hinder Performance in terms of Cricket related things. In response to question a Non significant difference in the severity was found Self, Co-Umpire and Organization ($F=1.863$, $p>0.05$).

The values show that self contribute more as compared to the Co-Umpire and Organization in creating stress and hinder performance.

Hence, the Null Hypothesis is rejected.

Table 6.21: Methods of dealing with Stress

Practice	High	Medium	Low	Rank
Yoga	32.00	2.00	4.00	4
Meditation	24.00	0.00	10.00	6
SPA	6.00	2.00	4.00	11
Panchkarma	4.00	4.00	0.00	15
Massage	10.00	8.00	8.00	8
Forget the things you can't change	22.00	12.00	16.00	2
Discipline your thoughts	18.00	10.00	12.00	5
Enjoy some quite time each day	6.00	6.00	16.00	9
Listening to music	24.00	10.00	22.00	1
Push away negative influences	10.00	14.00	20.00	7
Any mode of exercise	2.00	4.00	10.00	13
Laughter therapy	0.00	6.00	14.00	11
Get proper sleep	22.00	10.00	20.00	3
Avoid overwork	4.00	2.00	14.00	10
Pursuing any hobby like Singing, Dancing, Painting, Coloring etc.	2.00	2.00	4.00	16
Reading books	0.00	0.00	6.00	20
Long Drive	0.00	0.00	2.00	21
Spending time with family	2.00	2.00	4.00	16
Hang out with friends	2.00	4.00	6.00	14
Spiritual discourse	4.00	0.00	0.00	18
Adventure sports	0.00	0.00	0.00	22
Alcohol Moderation	2.00	0.00	4.00	19



Graph 6.21: Methods of dealing with Stress

Interpretation: Table 6.21 showing the various sources of dealing with Stress. The respondents were asked to rank top 5 factors out of among 22 factors by which they can overcome with Stress. Finally these ranks were categorized in to high, middle and low categories and respondents' % distribution is presented in the table. After % distribution final rank were calculated so that the top five sources of dealing with stress could be identified.

If Table 6.21 observed, the top five ranks that come out on the basis of response given by the umpires, which they generally do while dealing with stress are (1) Listening to Music (2) Forget the things you can't change (3) Get Proper Sleep (4) Yoga and (5) Discipline your thoughts which are shown in last column of Table No. 6.21.

Stress is that kind of situation in which nobody wants to remain for a longer period of time same is the case with respondents, they adopt different sources to come out from the stress like most of the respondents listening to music to get come out from stress because music relax their mindset and push back them to

their routine work, One of the most useful source of come out from the stress is forget the things you can't change because if you cannot change anything than what is the need of taking the tension of that thing, many respondents get proper sleep to come out from the stress because proper sleep gives the rest to the whole body and relax your mindset, Yoga also a major tool for calm down and restrengthen your power and energy and if respondents discipline their thoughts and be positive always than also they can deal with the Stress situation.

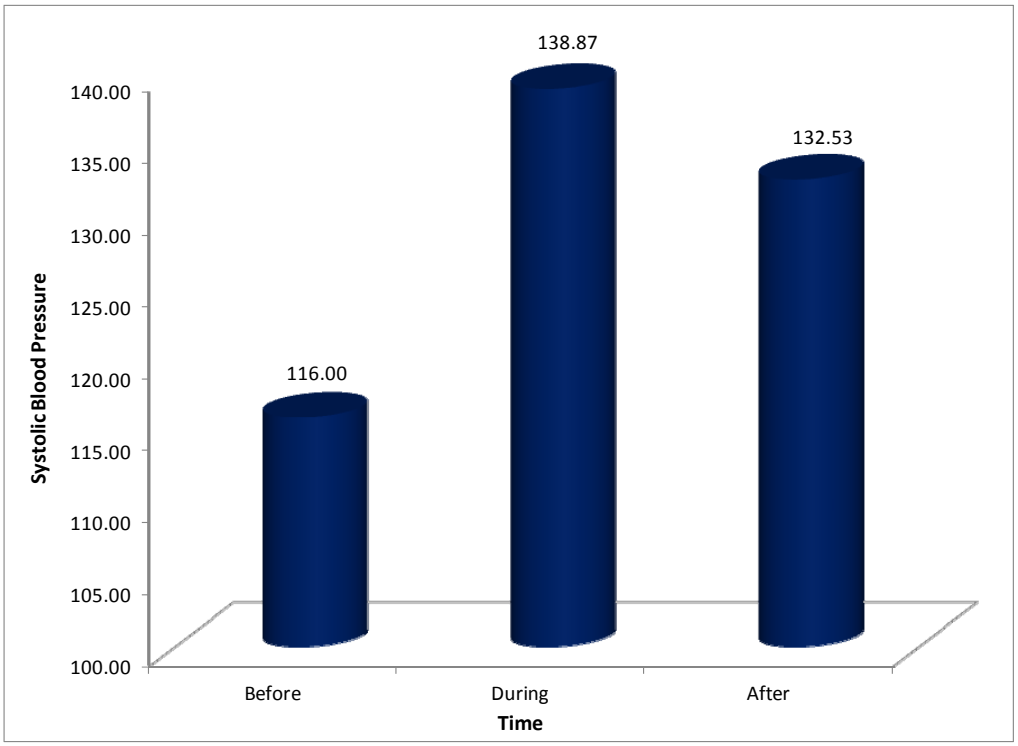
The respondents give least ranking to Reading books, Long Drive, Adventure sports and Alcohol moderation.

Analysis - Blood Pressure

Umpires

There is non – significant difference in the Systolic Blood Pressure of Umpires before, during and after the game.

Time	N	Mean	SD	F	Result
Before	15	116.00	6.414	38.56	***
During	15	138.87	7.791		
After	15	132.53	7.800		



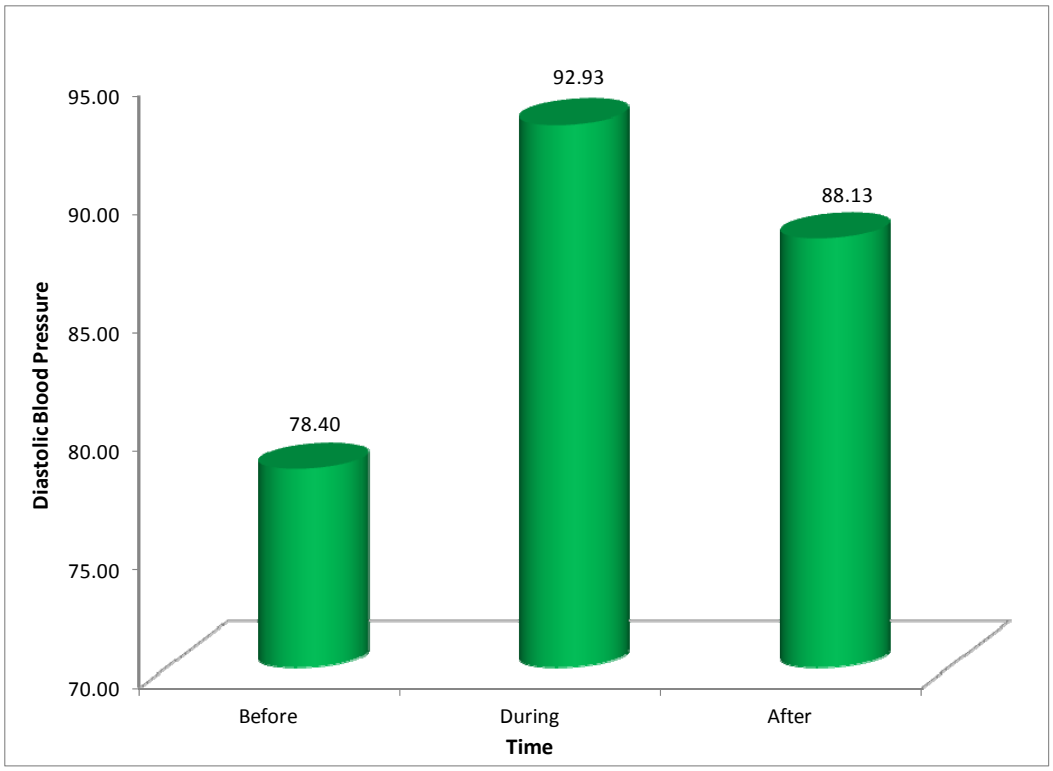
Interpretation: Table given above shows result of **ANOVA test** applied for the above Null Hypothesis. The test results show highly significant difference in the Systolic Blood Pressure of Cricket Umpires before, during and after the game. **(F=38.56, p<0.001)** The mean value of Blood Pressure shows that Blood Pressure of Umpire is higher during the game and lowest before the game and slightly lower than highest value after the game.

This shows that Umpire become Stressful during the game and their Blood Pressure are increased. It is concluded that there is highly significant difference in the Systolic Blood Pressure of Umpires before, during and after the game.

Hence, the Null Hypothesis is rejected.

There is non – significant difference in the Diastolic Blood Pressure of Umpires before, during and after the game.

Time	N	Mean	SD	F	Result
Before	15	78.40	4.672	35.24	***
During	15	92.93	4.713		
After	15	88.13	5.097		



Interpretation: Table given above shows result of **ANOVA test** applied for the above Null Hypothesis. The test results show highly significant difference in the Diastolic Blood Pressure of Cricket Umpires before, during and after the game. **(F=35.24, p<0.001)** The mean value of Blood Pressure shows that Blood Pressure of Umpire is higher during the game and lowest before the game and slightly lower than highest value after the game.

This shows that Umpire become Stressful during the game and their Blood Pressure is increased. It is concluded that there is highly significant difference in the Diastolic Blood Pressure of Umpires before, during and after the game.

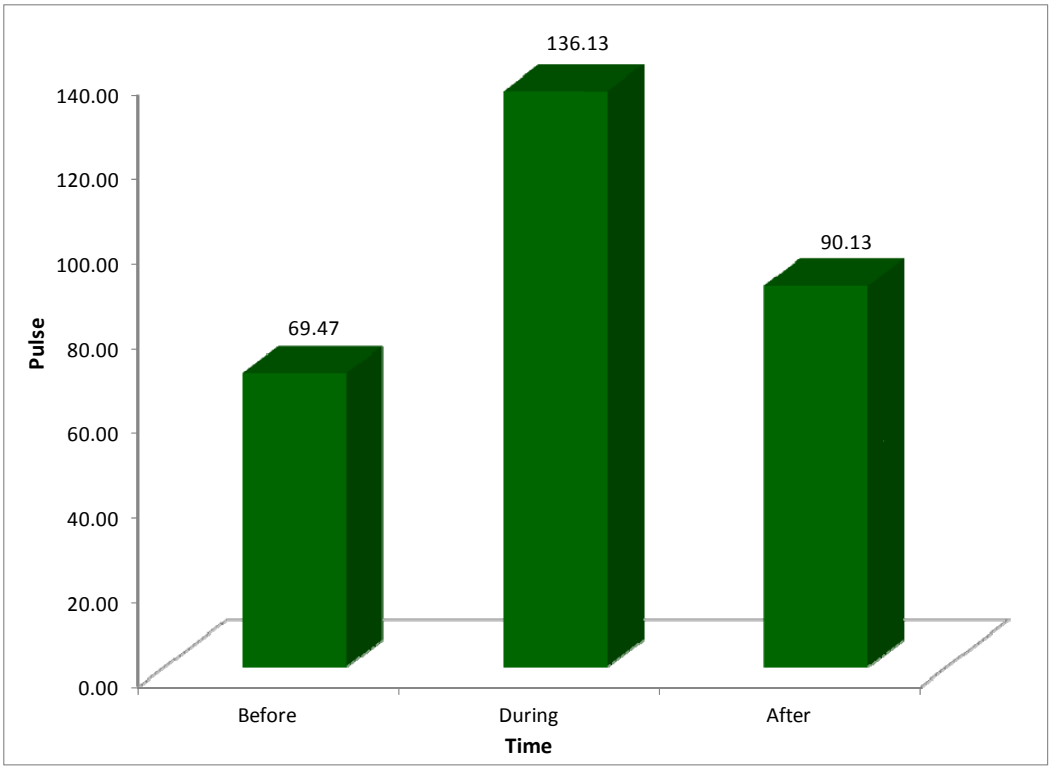
Hence, the Null Hypothesis is rejected.

Analysis – Pulse

Umpires

There is non – significant difference in the Pulse of Umpires before, during and after the game.

Time	N	Mean	SD	F	Result
Before	15	69.47	2.326	528.902	***
During	15	136.13	8.700		
After	15	90.13	4.240		



Interpretation: Table given above shows result of ANOVA test applied for the above Null Hypothesis. The test results show highly significant difference in the Pulse of Cricket Umpires before, during and after the game. ($F=528.902$, $p<0.001$) The mean value of Pulse shows that Pulse of Umpire is higher during the game and lowest before the game and slightly lower than highest value after the game.

This shows that Umpire become Stressful during the game and their Pulse is increased. It is concluded that there is highly significant difference in the Pulse of Umpires before, during and after the game.

Hence, the Null Hypothesis is rejected.

Chapter – 7

CONCLUSION AND SUGGESTIONS

Chapter - 7

CONCLUSION AND SUGGESTIONS

The research is to develop an understanding of process of Stress management from the view of cricket Umpire & Players and analyze its implications on the game of Cricket. The Umpires should know what exactly required from them by the officials or what is the expected as concern of their performance and outcomes, then exactly they can cope up with the stress and deal the situation accordingly. Proper plans to be given or made for them to improve their performance and outcomes. They must know about each and every aspect of their qualities and skills they have.

Now the amount of pressure and stress has been increased due to multiple reasons like new Rules, new Technology, new Playing Conditions and Technique, many competing team, many Competitions and including advancement of game. The umpires and players should given a proper treatment regarding dealing with all these new concepts and advancement to keep ones spirit and stamina up to the mark and balance Physical, Mental and Emotional make up.

Conclusion for Umpires

1. We can see from the respondents, the most number of Umpires in the World are **Part Timers** only.
2. The profession demands very good Physical Health & Stamina which is found maximum in Youth/Young Umpires.
3. The sample representation known all the technical aspect of the game and hence have a sound knowledge of Cricket both as a Player and as an Umpire.

4. Almost 80% of the existing Umpires of the sample have played Cricket at State and National Level, again confirming sound association with Cricket which shows High skill level and Involvement.

5. It is clear from the data that almost 90% Umpires are earning up to Rs.. 10,00,000 approx per year which comes almost approx Rs.83,000 per month.

6. The respondents said that almost 50% of the Umpires are having an experience of doing umpiring more than 10 years hence sample is true representative of the universe.

7. Life & Soft Skills required to do Umpiring are Team Work, Communication, Leadership, Initiative and Conflict Management according to the top five ranks given by the Umpires.

8. Mental Skills are concerned as pre requisite for Umpiring are Decision Making, Concentration, Sharpe Observation, Knowledge of Rules and Regulations and Judgment as per study.

9. Physical Skills required to do Umpiring are Fitness, Reflexes, Stamina, Right/Proper response to appeals and Sharpe eye sight and Sharp Hearing according to the top five ranks given by the Umpires.

10. The level of Stress is as high as 74% in the respondents.

11. The top five ranks that came out on the basis of response given by the Umpires which they feel as a Physical Stressors Before the game are Restless, Fatigue, Sweating, Headaches and Muscle Tension, Whereas During the game the Umpires give top five ranks to the following which are Restless, Sweating, Fatigue, B.P. Fluctuation and Stomach Upset.

12. The top five ranks that came out on the basis of response given by the Umpires which they feel as a Mental stressors Before the game are Lack of Confidence, Mood Swing, Low energy, Appearing Desire Less and Depression, whereas during the game the Umpires give top five ranks to the following which are Anxiety, Mood Swing, Low energy, Lack of Confidence and Depression.

13. Spearman's rank Correlation was applied between Physical Stressors before and during the game. Table shows the Highly Significant Correlation was found ($r= 0.850$, $p<0.001$) for Umpires between Physical Stressors before and during the game. This shows that almost same Physical stressors are present in the severity for an Umpire before and during the game.

14. Spearman's rank Correlation was applied between Mental Stressors before and during the game, Table shows the highly Significant Correlation was found ($r= 0.879$, $p<0.001$) for Umpires between Mental Stressors before and during the game.. This shows that almost same Mental Stressors are present in the severity for an Umpire before and during the game.

15. The top five body parts that come out on the basis of response given by the Umpires, which is most stressed after the match are Back, Foot, Legs, Waist, Neck and Knee .

16. The top sources of General Stress other than game for Umpires are Loss of loved one, Excess Working Hours, Lack of Support from Family, Financial Worries and Target Pressure, Too much Work Load, Work Life Balance Issues, Time Constraints and lastly Medical Sickness and Double Employment.

17. The top sources of Cricket Related Stress for Umpires are Fear of Failure, Competition, Previous Failures and Fight /Misunderstandings with Players, High Profile / Crucial Match, Fight/Misunderstanding/Conflict with Co-umpire and Existence of Famous players in the match.

18. The maximum no. of Umpires denying that Physical stress contributes in successful performance, whereas respondents are agreeing that Mental Stress contribute much in successful performance.

19. Z test is applied on Physical and Mental Stressors Table showing how much Stress contributes in successful performance. In comparison of Physical and Mental Stressors a **Non significant difference** in the severity was found which contribute in successful performance at personal level ($Z=-0.801$, $p>0.05$).Hence it can be said that both Physical and Mental Stress contribute in successful performance.

20. The respondents were asked to give their ranks on 5 point scale out of 50 respondents 40% agreed that **self** contributes much on successful performance. 60% agreed that **Team** contributes much on successful performance and only 10% respondents are favoring that **Organization** effect much on successful performance.

21. One way ANOVA was applied to check which Stress (Self, Co- Umpire and Organization) contribute more significantly in successful performance. The test result shown Significant difference ($F=4.65$, $p=<0.05$) in Self, Co-Umpire and Organization impact in effectiveness in successful performance. The mean value shows that self factor contribute more in successful performance in comparison of CO-Umpire and organization.

22. The respondents were asked to give their ranks on 5 point scale. Out of 50 respondents 56% Umpires give their opinion that Physical Stress create much Stress and Hinder performance, whereas Out of 50 respondents 64% Umpires give their opinion that Mental Stress can create much stress and hinder the performance.

23. Z test is applied on While doing comparison of Physical and Mental Stressors a Non significant difference in the severity of Physical and Mental Stressors was found that hinder the performance at personal level.($Z=0.520$, $p>0.05$).Hence it can be said that both Physical as well as Mental Stressors play their role in hindering the performance at Personal level.

24. The respondents were asked to give their ranks on 5 point scale that **self** extent create stress and hinder performance, out of 50 respondents 46% Umpires agreed that **self** create Stress much and hinder Performance, whereas respondents were asked to give their ranks on 5 point scale that **Team** extent create stress and hinder performance, out of 50 respondents 48% respondents are agreed with Neutral and lastly respondents were asked to give their ranks on 5 point scale that **Organization** extent create stress and hinder performance, out of 50 respondents 36% are Neutral.

25. F Test was applied so as to fund out how much they create Stress and hinder Performance in terms of Cricket related things. In response to question a Non significant difference in the severity was found Self, Co-Umpire and Organization ($F=1.863$, $p>0.05$), The values show that self contribute more as compared to the Co-Umpire and Organization in creating stress and hinder performance.

26. The top five ranks that come out on the basis of response given by the Umpires, which they generally do while dealing with Stress are Listening to Music, Forget the things you can't change, Get Proper Sleep, Yoga and Discipline your thoughts.

SUGGESTIONS

{A} **For Umpires: -** To avoid the Stress before, during and after the match and to become successful Umpire following points must be considered:-

- Improved Communication between third Umpire, Head of Broadcast TV production crew and on field Umpires.
- Communication Skill Development Programme.
- Regular health Checkups for Umpires.
- Enjoyment of your officiating role.
- Good Umpire must have good eye sight and hearing, a judicial mind, a good strong pair of legs.
- Physical fitness.
- The ability to concentrate for long period.
- Working Knowledge.
- Understanding and application of Laws.
- Think and Act.
- Give decisions, not the Reasons.
- Do not Trouble the Trouble, unless the Trouble Troubles you.

- Be Polite, but Firm.
- Strict sense of Impartiality, Integrity and Judicial mind.
- Sensible show of Authority.
- Courage of Conviction.
- Never compensate the mistakes.
- Never be swayed by the personalities.
- Maintain Team work and Professionalism.
- Impart relevant information loudly and clearly.
- Use Neutral tone and Body Language.
- Be Firm, Fair and Dignified.
- Be a good listener and have a genuine concern to the Laws and their application.
- Do not be in a hurry to answer appeals.
- Do not be over friendly with the Players.
- Progressive Muscular Relaxation.
- Breathing Control.

Further following core disciplines were identified for the qualitative development so that consistently high standard of Umpiring and the control on the game is achieved:-

1. Preparation.
2. Decision Making.
3. Fitness & Concentration.
4. Team Work
5. Technique & Field Craft.
6. Dress & Appearance.

7. Knowledge & Application.

8. Coping the Pressure.

9. Earning Respect to Command Respect.

10. Stance, Movement & Positioning.

These disciplines almost cover all the demands expected from an Umpire. These can be perfected by specific technique of Umpiring. Good technique is the quality to cope up with all the aspect of the game especially in Stress situations. Theoretical knowledge is one thing but to apply them to make reasoned competent and consistent decision from split second actions under pressure is quite another split.

4C method to become successful **Cricket Umpires**

4C Method

↓

Concentration

↓

Confidence

↓

Control

↓

Commitment

Concluding Remarks

Thus the mighty game of cricket, which enjoys number 1craze game in India can improve a lot in the management of game by properly administering coping mechanisms of Stress at personal, game and organizational level.

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QUESTIONNAIRE

QUESTIONNAIRE

Part {A} Personal Information

Q.1 **Name of Umpire**: -……

Q.2 **Address**:- ……..... ……

Q.3 **Contact Details**:- {A} **Mobile**…… {B} **Land Line**…….....

{C} **Email** ……..……

Q.4 **Name of Organization**: -……..

Q.5 **Name of Your Cricket Association**: -…….....

Q.6 **Involvement in Umpiring: -**

{A} Full Time. ( )

{B} Part Time ( )

{C} On Call ( )

{D} Other ( )

Q.7 **Which Age Group You Belongs to: -**

{A} 25 – 35 Year ( )

{B} 35 – 45 Year ( )

{C} 45 – 55 Year ( )

{D} 55 & Above ( )

Q.8 **Have you yourself played Cricket:-**

{A} Yes ( )

{B} No ( )

If Yes, Which Level:-

{A} District Level ( )

{B} State Level ( )

{C} National Level ( )

{D} International Level ( )

Q.9 Personal Annual Income Level: -

{A} 0 – 500000 ( )

{B} 500000 – 1000000 ( )

{C} 1000000 – 1500000 ( )

{D} 1500000 and Above ( )

Q.10 The Level You Officiate in Umpiring: -

{A} District Level ( )

{B} State Level ( )

{C} National Level ( )

{D} International Level ( )

Part {B} Profession Related

Q.1 Since how long you are doing Umpiring: -

{A} 0 - 10 Year ( )

{B} 10- 20 Year ( )

{C} 20 - 30 Year ( )

{D} 30 & Above ( )

Q.2 According to you what kind of Skills are required to do full justice to Umpiring: - (Rank Top 5)

{A} Life and Soft Skills: -	**Rank**
1. Leadership & Initiative	
2. Staying Calm & Composure	
3. Verbal & Non Verbal Communication	
4. Conflict Management	
5. Discipline	
6. Team Work	
7. Patience	
8. Flexibility	
9. Co-ordination	
10. Implementation	

{B} Mental Skills: -	**Rank**
1. Decision Making	
2. Problem Solving	
3. Concentration	
4. Judgment	
5. Sharp Observation	
6. Controlling Power	
7. Knowledge of Rules & Regulations	
8. Following Ball Movement	
9. Calculative Mind	
10. Stress Management	

{C} Physical Skills: -	Rank
1. Reflexes	
2. Self protection from Accidents & Injuries	
3. Fitness	
4. Agility	
5. Athletic Body	
6. Stamina	
7. Right /Proper Response to Appeals	
8. Sharp Eye Sight	
9. Sharp Hearing	
10. Resistance to Pain	

Q.3 Is Physical & Mental Stress is a Hindrance to do Umpiring: -

{A} Yes ( )

{B} No ( )

{C} Can't Say ( )

Q.4 Do you feel any of the Physical Stressors before and during doing Umpiring: - (Rank Top 5) (Tick as many you think applicable / right)

Particulars	Before		During	
	✔	Rank	✔	Rank
1. Restless				
2. B.P. Fluctuations				
3. Pounding Heart				
4. Sweating				
5. Stomach Upset				
6. Dizziness				
7. Frequent Urination				
8. Shortness of Breath				
9. Muscle Tension				
10. Fatigue				
11. Headaches				
12. Insomnia				
13. Too much of Sleeping				
14. Chest Pain				
15. Any Other Reason				

Q.5 Do you feel any of the Mental Stressors before and during doing Umpiring: - (Rank top 5) (Tick as many you think applicable/right)

Particulars	Before		During	
	✔	Rank	✔	Rank
1. Anxiety				
2. Lack of Confidence				
3. Mood Swing				
4. Depression				
5. Hypersensitivity to other Criticism				
6. Low Energy				
7. Appearing Desire Less				
8. Hallucination				
9. Loss of Interest				
10. Nail Biting				
11. Frequent Smoking				
12. Surrendering to Drink				
13. Excessive Talking				
14. Avoiding Media / Public.				
15. Any Other Reason				

Q.6 After the match which part of Body you feel most Stressed/Tired: - (Rank top 5) (Tick as many you think applicable/right)

Particulars	✔	Rank
1. Ankle		
2. Foot		
3. Knee		
4. Legs		
5. Arm		
6. Shoulder		
7. Neck		
8. Head		
9. Eyes		
10. Elbow		
11. Wrist		
12. Toes		
13. Thigh		
14. Calf		
15. Heel		
16. Shin		
17. Back		
18. Waist		
19. Forhead		
20. Any other Part		

Q.7 According to you what are the Sources of Stress: - (Tick as many you think applicable/right)

Particulars	✔
{A} General: -	
1. Loss of Loved one	
2. Financial Worries	
3. Work Life Balance Issues	
4. Target Pressure	
5. Too much work load	
6. Time Constraint	
7. Excess working hour	
8. Double Employment	
9. Medical Sickness	
10. Lack of Support from Family and Friends	

Particulars	✔
{B} Cricket Umpiring Related: -	
1. Fear of Failure	
2. Competition	
3. Frustration	
4. High Profile / Crucial Match	
5. Previous Failures	
6. Fight/Misunderstanding with Players	
7. Fight/Misunderstanding with Co-Umpire	
8. Existing of Famous Players in Match	

Q.8 How much they contribute in Successful performance: -

Particulars	1	2	3	4	5
	Very Much	Much	Neutral	Not so Much	Not At All
{A} Personal: -					
1. Physical Stress					
2. Mental Stress					
{B} Cricket Umpiring: -					
1. Self					
2. Co- Umpire					
3. Technology					

Q.9 How much they create Stress and Hinder Performance: -

Particulars	1	2	3	4	5
	Very Much	Much	Neutral	Not so Much	Not At All
{A} Personal: -					
1. Physical Stress					
2. Mental Stress					
{B} Cricket Umpiring: -					
1. Self					
2. Co- Umpire					
3. Technology					

Q.10 How do you deal with Stress :- (Rank top 5) (Tick as many you think applicable/right)

Particulars	✔	Rank
1. Yoga		
2. Meditation		
3. Spa		
4. Panchkarma		
5. Massage		
6. Forget the things you can't Change		
7. Discipline your thoughts		
8. Enjoy some quite time each day		
9. Listening to music		
10. Push away negative Influences		
11. Any mode of Exercise		
12. Laughter Therapy		
13. Get proper Sleep		
14. Avoid Overwork		
15. Pursuing any hobby like Singing, Dancing , Painting, Coloring		
16. Reading books		
17. Long drive		
18. Spending time with family		
19. Hang out with Friends		
20. Spiritual Discourse		
21. Adventure sports		
22. Alcohol Moderation		

MASTER OF FINANCE AND CONTROL

UNIVERSITY COLLEGE OF COMMERCE & MANAGEMENT STUDIES
MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

TRAINING REPORT

ON

Detailed Analysis on Problems Faced in Filing GST Returns

Submitted in the fulfilment for the Training Report and Presentation

as the requirement for the Partial completion of

Master of Finance and Control Degree

(2021-2023)

Submitted By:

Keshav Soni

DECLARATION

I, **Keshav Soni**, hereby declare that the training report on "**Detailed Analysis on Problems Faced in filing GST Returns**" is submitted in requirement for the partial completion of degree of Master of Finance and Control at University College of Commerce and Management Studies, Udaipur (Rajasthan).

It is original work and has not been submitted for the award of any other Degree/ Diploma/ Fellowship or other similar titles or prizes to any other institution/ school or university by any other person.

Keshav Soni
MFC III Semester
Udaipur (Raj.)
Date:

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Keshav Soni
MFC III Semester

PREFACE

The training report is an outcome of training programme done at P K Chhaparwal & Associates. The objective of the internship is to find the problems face by Registrants under GST in filing returns in time. An attempt has been made to finds the reasons, grievances and issues resulting in non-filing as returns under GST by tax payers. The major problem I faced in my internship is improper management in GST system. As the people who registered under GST are technically poor it became hard for them to file return by themselves. There may be few drawbacks occurred due to time limits and limited secondary data available as the GST is introduced newly in India. Though I have tried my best to keep the report from errors, I apologise if any mistakes were found which were not made deliberately. If the report has can help tax department, I will be happy to acknowledge. I feel that the purpose of report has been fulfilled. Please feel free to contact me if any queries arise.

INDEX

Sr. No.	Contents	Pg. No.
01.	**ORGANISATION PROFILE**	1-2
02.	**SERVICES**	3-4
03.	**SWOT ANALYSIS OF CA PROFESSION**	5-8
04.	**COMPETITITORS OVERVIEW**	8
05.	**CONCEPTUAL STUDY**	9
06.	**GOODS AND SERVICE TAX**	10-17
07.	**BENEFITS OF GST**	18-19
08.	**HISTORY AND BACKGROUND OF GST**	20-22
09.	**REGISTRATION UNDER GST**	23-24
10.	**GST COMPOSITION SCHEME**	25-29
11.	**INPUT TAX CREDIT**	29-33
12.	**VARIOUS RETURNS INVOLVED**	33-34
13.	**GST E-FILING SYSTEM IN INDIA**	35-48
14.	**DRAWBACKS OF GST**	49-50
15.	**IMPACT OF GST ON COMMON MAN**	50-51
16.	**LEARNING EXPERIENCE**	52
17.	**CONCLUSION**	52-53
18.	**BIBLIOGRAPHY**	53-54

ORGANISATION PROFILE

About P K Chhaparwal & Associates

P K Chhaparwal & Associates is a professionally managed form the team consists of distinguished Chartered Accountants, Corporate financial advisor in tax consultants the form represents a combination of specialized skills which are geared to offer sound financial advice and personalized proactive services. Those associated with the form have regular interaction with the industry and other professionals which enables the firm to keep pace with contemporary developments and to meet the needs of its clients.

INTRODUCTION TO WORK OF ORGANISATION

Chartered Accountants work in a wide range of business sectors and in a broad spectrum of roles, from Chief Executives to Financial Controllers. Below are a few examples of the type of positions that Chartered Accountants occupy.

- Tax Accountant
- Management Accountants
- Financial Accountants
- Budget Analysts
- Auditor
- Project Consultancy

VISION AND MISSION OF ORGANIZATION

Vision Statement

We will become the Tax advisor of choice through the creation of an environment where we want to give of our best and to enable our client to realize and reach their potential by optimal leverage of resources and constantly strive to better them.

Mission Statement

Prime objective the provision of an integrated range of client focused services that will exceed our client's expectations and assist them to improve the and reduce and maintain Tax Liability. We are committed to creating a client focused culture and supporting our staff to achieve the prime objective. Our professional and local communities are an integral part of our ability to deliver on this mission.

Our Help

To establish Trust, Comfort and Convenience as a one stop business

solutions provider.

Our Supports

To provide simple, effective and progressive solutions for business.

SERVICES

Taxation

Enhancing a stakeholder value is a fundamental concept, which drives every management effort in the modern business environment. Progressive and bottom – line focused managements have realized that taxes should be viewed as a dynamic item of cost, rather than a passive charge on the profits. Indeed, an effective tax – cost management provides a distinct competitive advantage, which requires the application of appropriate tax strategies, proactively identified and meticulously implemented. In the modern-day world all businesses are engaged in multinational transactions and operations, they are continually challenged to manage the impact of multiple and ever-changing tax -jurisprudence. In order to meet requirements of the business, we provide following services:

1. Tax Advisory
2. Goods and service tax
3. Representation & Litigation Support
4. Income tax planning and management

Assurance

Our assurance services include Statutory audit, Tax audit and Special audits. We carry out audit of financial statements prepared in accordance with various GAAP's

(IGAAP/US GAAP / IFRS / other international GAAP) under applicable auditing standards. Our audit methodology is compliant with international auditing standards and provide our client with highest level of assurance on their financial statements. With the wider access to **P K Chhaparwal & Associates** Technical teams and experienced professionals, we bring the benefits of Global standards and practices to our clients.

Advisory Service

Managing Risk to enhance performance to truly manage risk, it is vital to enable the right frameworks. We help enhance your business performance by building strong risk management frameworks into the very core of your business processes.

Accounting & Book Keeping

Keeping and maintaining all the documents related to books of accounts of the company and doing the workflow of recording, summarising, analysing all the financial transactions of the client.

Project Consultancy

A project management consultancy provides expert project management advice to external businesses. A company may hire a project management consultancy if it lacks project management expertise. Or if it wants project management advice from an external, impartial party.

SWOT ANALYSIS OF CA PROFESSION

For CA profession there are three broad internal factors: -

1. **Self**
2. **Clients**
3. **Staff**

Similarly, there are 3 broad external factors: -

1. **Everchanging laws**
2. **Infrastructure**
3. **Authorities**

Proper balance between all the variables is needed.

STRENGTHS

1. Low Cost of Education
2. Performance in typical situations
3. High Speed
4. Capacity to handle various types of tasks simultaneously
5. Knowledge of everchanging different types of laws
6. Accuracy guaranteed in Government & in Other Departmental work
7. Goodwill in Public Mind

8. World Class Journal and Publications

9. Sound Vision: System Analysis and Data Processing subject introduced more than 20 years back.

10. Sound examination pattern all over India.

11. Tactful analysis of Subject Material

12. Influence

WEAKNESS

1. Unmatched Training Programme
2. Unmatched Coaching
3. Unmatched CPE Hours for Members
4. Non-Standardization of Faculties
5. Lack of Communication Skills
6. Lack of Day to Day Time Management
7. Overloaded Work
8. Poor Charging of Services Rendered
9. Poor Co-ordination between the members
10. Poor Concentration

OPPURTUNITIES

1. Grow indirect tax practice

   Since the government implemented GST in India, many businesses have looked to CA firms for financial advice and compliance related to GST. Thus, they can cash on the GST market to strengthen their indirect tax practice.

2. Improve Quality of Audit

   The emergence of technology such as big data and analytics provides opportunities for CA firms to improve audit quality by reducing error and improving the risk assessment process. The cost of learning big data and analytics can go as high as Rs. 4 lakh.

3. Expand to new markets

   In India, the number of CAs is far less than required. The 72nd annual report of The Institute of Chartered Accountants of India 2020-21 states that CAs in the country are a little over 3.2 lakh. Thus, it's a perfect platform for those in business to expand to newer markets and offer their services. Expansion incurs cost in the form of: Office space Market research Setting up infrastructure Hiring staff Regulatory compliance with many CA firms crowding metro cities and making the market increasingly competitive, you can reach out to clients in developing areas and take the first-mover advantage.

THREATS

1. Lacking time management

2. Lacking advance learning of Computers

3. Lack of coordination with Top Authorities

4. Lack of trained people

5. Increasing complexity in the tax laws, auditing etc.

6. increase in number of firms comparatively number of clients no increasing.

COMPETITORS OVERVIEW

TOP 10 CA FIRMS IN INDIA

1. **DELOITTE**
2. **PRICE WATER COOPERS (PWC)**
3. **KPMG**
4. **ERNST & YOUNG (E&Y)**
5. **BDO INTERNATIONAL LTD**
6. **GRANT THRONTON INTERNATIONAL**
7. **RSM INTERNATIONAL**
8. **SS. KOTHARI MEHTA & CO.**
9. **LODHA & CO.**
10. **SAHNI NATRAJAN & BAHL**

CONCEPTUAL STUDY

JOB DESCRIPTION

I have Tried my best to enhance my abilities and apply the knowledge that I gained during the studies. On my first day at firm, firm in-charge gave me a training session about GST returns, computerized accounting in tally software and also shared his practical experience with me and gave me some techniques of this process. He also guided me that how to prepare GST return and filling data in income tax return preparation software.

Different tasks performed by me during my internship:

- Vouching
- Preparing books of Accounts in Tally
- Voucher Entry
- Preparing data in Excel Sheet
- Intangible Assets Management
- Preparation of Projected P&L Account and Balance Sheet
- Auditing and Assurance
- Direct Taxation
- Indirect Taxation

GOODS AND SERVICE TAX

TAX

Tax in general is the imposition of financial charges upon an individual or a company by the Government of India or their respective state or similar other functional equivalents in a state. The computation and imposition of the varied taxes prevalent in the country are carried on by the Ministry of Finance's Department of Revenue. According to the data, in the financial year 2021-22, the direct tax collection reached Rs 14.10 lakh crore with a sharp increase of 49%. Whereas there has been a 30% increase in indirect tax collection and it stood at **Rs 12.90 lakh crore.**

GST – Goods and Service Tax

GST is considered as an indirect tax for the whole nation that would make India one unified common market. It is a tax which is imposed on the sale, manufacturing and the usage of the goods and services. It is a single tax that is imposed on the supply of the goods and services, right from the manufacturer to the customer. The credits of the input taxes that are paid at each stage will be available in the subsequent stage of value addition which makes GST essentially a tax only on the value addition on each stage. The final consumers will bear only the tax charged by the last dealer in the supply chain with the set of benefits that are at all the previous stages.

It is charged at the national and state level at similar rates for the same products and it also replaces almost all the current indirect taxes that are imposed separately by

the Centre and the States. Goods & Services Tax is a destinatio based tax which means that the tax is paid at the place of supply.

There are 3 types of GST

- **CGST- Central Goods and service tax**
- **SGST- State Goods and service tax**
- **IGST- Integrated Goods and service tax**

Why GST has been proposed?

Our Constitution empowers the Central Government to levy excise duty on manufacturing and service tax on the supply of services. Further, it empowers the State Governments to levy sales tax or value added tax (VAT) on the sale of goods. This exclusive division of fiscal powers has led to a multiplicity of indirect taxes in the country. In addition, central sales tax (CST) is levied on inter- State sale of goods by the Central Government, but collected and retained by the exporting States. Further, many States levy an entry tax on the entry of goods in local areas.

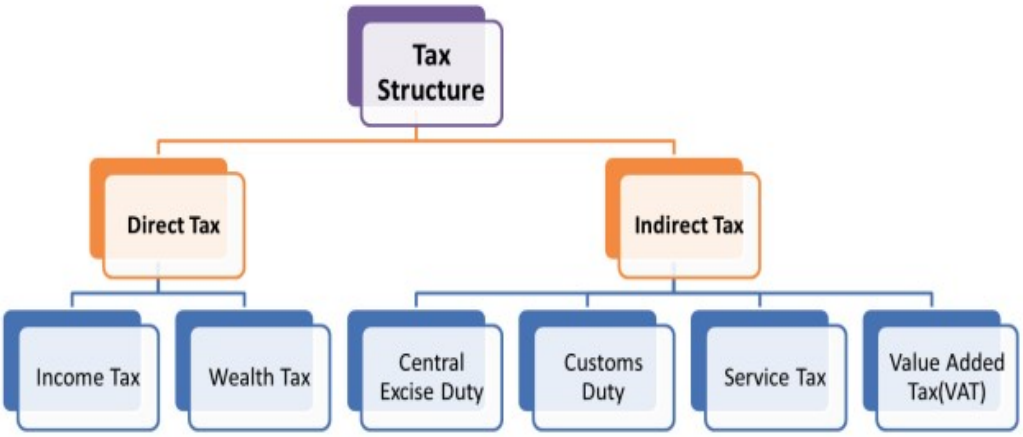
This multiplicity of taxes at the State and Central levels has resulted in a complex indirect tax structure in the country that is ridden with hidden costs for the trade and industry. In order to simplify and rationalize indirect tax structures, Government of India attempted various tax policy reforms at different points of time. A system of VAT on services at the central government level was introduced in 2002. The states collect taxes through state sales tax VAT, introduced in 2005, levied on intra-state

trade and the CST on inter-state trade. Despite all the various changes the overall taxation system continues to be complex and has various exemptions.

This led to the idea of "One nation One Tax" and introduction of GST in Indian financial system. This is simply very similar to VAT which is at present applicable in most of the states and can be termed as National level VAT on Goods and Services with only one difference that in this system not only goods but also services are involved and the rate of tax on goods and services are generally the same.

Different types of taxes

Prevalence of various kinds of taxes is found in India. Taxes in India can be either direct or indirect. However, the types of taxes even depend on whether a particular tax is being levied by the central or the state government or any other municipalities.



In the earlier indirect tax rule, there were many indirect taxes levied by both state and centre. States mainly collected taxes in the form of Value Added Tax (VAT). Every state had a different set of rules and regulations. Interstate sale of goods was taxed by the Centre. CST (Central State Tax) was applicable in case of interstate sale of goods. Other than above there were many indirect taxes like entertainment tax, octroi and local tax that was levied by state and centre. This led to a lot of overlapping of taxes levied by both state and centre.

For example, when goods were manufactured and sold, excise duty was charged by the centre. Over and above Excise Duty, VAT was also charged by the State. This leads to a tax on tax also known as the cascading effect of taxes.

The following is the list of indirect taxes in the pre-GST rule:

- Central Excise Duty
- Duties of Excise
- Additional Duties of Excise
- Additional Duties of Customs
- Special Additional Duty of Customs
- Cess
- State VAT
- Central Sales Tax
- Purchase Tax
- Luxury Tax
- Entertainment Tax
- Entry Tax Taxes on advertisements

- Taxes on lotteries, betting, and gambling

CGST, SGST, and IGST has replaced all the above taxes. However, the chargeability of CST for Inter-state purchase at a concessional rate of 2%, by issue and utilization of cForm is still prevalent for certain non-GST goods such as:

(i) Petroleum crude

(ii) High-speed diesel;

(iii) Motor spirit (commonly known as petrol)

(iv) Natural gas

(v) Aviation turbine fuel

(vi) Alcoholic liquor for human consumption. in respect of following transactions only:

- Resale
- Use in manufacturing or processing
- Use in the telecommunication network or in mining or in the generation or distribution of electricity or any other power.

Objectives of GST

- To concentrate and conform One Country – One Tax.
- To ensure consumption based tax instead of Manufacturing.
- To ensure Uniform GST Registration, payment and Input tax Credit.
- To eliminate the cascading effect of Indirect taxes on single transaction.
- To ensure the subsume all indirect taxes at Centre and State Level under.
- To reduce tax evasion and corruption.
- To increase productivity.

- To increase Tax to GDP Ratio and Revenue surplus.
- To increase Compliance.
- To reduce economic distortions.
- Boost to exports: If Indian market will be competitive in pricing, then more and more foreign players will try to enter the market, which results in more numbers of exporters and benefits to Indian Market. As far there is no tax rate is finalized, but yes GST is much needed in the countries where, it lacks transparency and complex taxation system. GST will take away cascading effect of various taxes that are charged on sale/ production/ purchase and so. Products reaches to customers at very high rate as compared to manufacturing, so with GST there will be only one tax and it will reduce burden to pay off

Types of Goods and Service Tax (GST)

1. Central Goods and Services Tax (CGST):

Under GST, CGST is a tax levied on Intra State supplies of both goods and services by the Central Government and will be governed by the CGST Act. SGST will also be levied on the same Intra State supply but will be governed by the State Government. This implies that both the Central and the State governments will agree on combining their levies with an appropriate proportion for revenue sharing between them. However, it is clearly mentioned in Section 8 of the GST Act that the taxes be levied on all Intra-State supplies of goods and/or services but the rate of tax shall not be exceeding 14%, each.

2. State Goods and Services Tax (SGST):

Under GST, SGST is a tax levied on Intra State supplies of both goods and services by the State Government and will be governed by the SGST Act. As explained above, CGST will also be levied on the same Intra State supply but will be governed by the Central Government.

An example for CGST and SGST:

Let's suppose Ram is a dealer in Karnataka who sold goods to Sham in Karnataka worth Rs. 10,000. The GST rate is 18% comprising of CGST rate of 9% and SGST rate of 9%. In such case, the dealer collects Rs. 1800 of which Rs. 900 will go to the Central Government and Rs. 900 will go to the Karnataka Government.

3. Integrated Goods and Services Tax (IGST):

Under GST, IGST is a tax levied on all Inter-State supplies of goods and/or services and will be governed by the IGST Act. IGST will be applicable on any supply of goods and/or services in both cases of import into India and export from India.

An example for IGST:

Consider that a businessman Ramesh from Karnataka had sold goods to Anil from Kerala worth Rs. 1,00,000. The GST rate is 18% comprised of 18% IGST. In such case, the dealer has to charge Rs. 18,000 as IGST. This IGST will go to the Centre.

Why the split into SGST, CGST, and IGST?

India is a federal country where both the Centre and the States have been assigned the powers to levy and collect taxes. Both the Governments have distinct responsibilities to perform, as per the Constitution, for which they need to raise tax revenue.

The Centre and States are simultaneously levying GST.

The three types tax structure is implemented to help taxpayers take the credit against each other, thus ensuring “One Nation, One Tax”.

Transaction	New System	Old System	Description
Domestic	SGST + CGST	SERVICE TAX/CENTRAL EXCISE + VAT	CENTRAL & STATE WILL SHARE REVENUE EQUALLY
International	IGST	CENTRAL SALES TAX + EXCISE/SERVICE TAX	BASED ON DESTINATION, CENTRE WILL SHARE REVENUE

For example:

Interstate sale in this dual tax system is involved. One is the CGST and another SGST is to be levied. Within the state deal is to be payable to incorporate Goods and service.

As I said before the meaning of GST – “GST is a comprehensive, multi-stage, destination-based tax that will be levied on every value addition.”

Let we try to understand that means.

BENEFITS OF GST

To Trade:

1. Reduction in multiplicity of taxes.
2. Mitigation of cascading / double taxation.
3. More efficient neutralization of taxes especially for exports.
4. Development of common national market.
5. Simple tax regime –
    1. Fewer rates and exemptions.
    2. Distinction between Goods and Services no longer required.

To Consumers:

1. Simpler Tax system
2. Reduction in prices of goods and services due to elimination of cascading.
3. Uniform prices throughout the country.
4. Transparency in taxation system. Increase in employment opportunities.

Taxes which are not to be subsumed

GST may not subsume the following taxes within its ambit:

1. **Basic Custom Duty:** These are protective duties levied at the time of Import of goods into India.
2. **Export Duty:** This duty is imposed at the time of export of certain goods which are not available in India in abundance.
3. **Road and Passenger Tax:** These are in the nature of fees and not in the nature of taxes on goods and services.
4. **Toll tax:** these are in the nature of user fees and not in the nature of taxes on goods and services.

HISTORY & BACKGROUND OF GST

The GST journey began in the year 2000 when a committee was set up to draft law. It took 17 years from then for the Law to evolve. In 2017 the GST Bill was passed in the Loksabha and RajyaSabha On 1st July 2017 the GST Law came into force. Bringing together 35 diverse stakeholders to nurture and roll out an indirect tax transformation is the hallmark of Goods and Services Tax (GST) introduction. It has had its share of relentless efforts over several years, to bring all states and union territories in sync. As we complete one year of the GST, it would be worthwhile to look back to see how the journey has been so far. The key principles adopted for designing GST were - Widening of the tax base, elimination of the cascading effect, transparency and simplicity, and automation of compliance. It has taken over six decades to build the existing tax base, and only six months to amplify it. Thisis a significant feat, enabling wider coverage, more transparency and robust tax collections. As a matter of fact, it is also improving direct tax collections as a consequence. Mitigation of the cascading impact has resulted in an increase of Indian competitiveness in the global market. Businesses now recover much larger tax credits than before. Additionally, the anti-profiteering provisions served as a check on any potential inflationary impact. With the exception of petroleum products, the government seems to have firmly held the reins on the inflation rates post GST. This marks an exception from the general global experience of price rise post VAT/ GST.

Bills Passed For The Implementation Of GST Regime:

1. The Central Goods and Services Tax Bill 2017 (The CGST Bill)
2. The Integrated Goods and Services Tax Bill 2017 (The IGST Bill)
3. The Union Territory Goods and Services Tax Bill 2017 (The UTGST Bill)
4. The Goods and Services Tax (Compensation to the States) Bill 2017 (The Compensation Bill)

- The CGST Bill makes provisions for levy and collection of tax on intra-state supply of goods or services or both by the Central Government.
- IGST Bill makes provisions for levy and collection of tax on inter-state supply of goods or services or both by the Central Government.
- The UTGST Bill makes provisions for levy on collection of tax on intra-UT supply of goods and services in the Union Territories without legislature. Union Territory GST is akin to States Goods and Services Tax (SGST) which

shall be levied and collected by the States/Union Territories on intra- state supply of goods or services or both.

- The Compensation Bill provides for compensation to the states for loss of revenue arising on account of implementation of the goods and services tax for a period of five years as per section 18 of the Constitution (One Hundred and First Amendment) Act, 2016.

Various Tax Rates imposed by GST

Some industries and products were exempted by the government and remain untaxed under GST, such as dairy products, products of milling industries, fresh vegetables & fruits, meat products, and other groceries and necessities. Checkposts across the country were abolished ensuring free and fast movement of goods. The Central Government had proposed to insulate the revenues of the States from the impact of GST, with the expectation that in due course, GST will be levied on petroleum and petroleum products. The central government had assured states of

compensation for any revenue loss incurred by them from the date of GST for a period of five years.

Registration under GST

Background

Model GST law provides for registration of various persons in different situations. This article aims at enlightening readers about the persons who are required to take registration and other provisions related to registrations.

Threshold Limit

In order to provide relaxation to small supplies it is provided that every supply shall be liable to be registered under this act in the State form where it makes a taxable supply of goods and services if its aggregate turnover in a financial year exceeds Rs. 20 lakhs. However, this limit is Rs. 10 lakhs for the persons conducting business in NE states including Sikkim.

Here, aggregate turnover means the aggregate value of all taxable and non-taxable supplies, exempt supplies and exports of goods and/ or services of a person having the same PAN, to be computed on all India basis and excludes taxes, if any, charged under the CGST Act, SGST Act and the IGST Act, as the case may be. But aggregate turnover does not include the value of supplies on which tax is levied on reverse charge basis and the value of inward supplies.

Person requiring Registration:-

Following are the persons required to take registrations under this act –

i. Persons making inter-state supply, irrespective of any threshold limit.
ii. Casual taxable persons, irrespective of the threshold specified.
iii. Persons who are required to pay tax under reverse charge
iv. Non- resident taxable persons
v. Persons who are required to deduct tax under section 37 (TDS)
vi. Agents
vii. Input service distributors
viii. Supply of goods or services through electronic commerce operator, other than branded

Services

a. Every electronic commerce operator
b. Aggregators who supplies service under his brand name or his trade name
c. transferee in case where business is transferred.
d. Businesses with turnover above the threshold limit of Rs. 20 lakhs* (Rs. 10 Lakhs for North-Eastern States, J&K, Himachal Pradesh and Uttarakhand)

Documents Required for GST Registration

- PAN of the Applicant.
- Aadhaar Card.
- Proof of business registration or Incorporation certificate.
- Identify and Address proof of Promoter.
- Address proof of the place of business.

- Bank Account statement/ Cancelled cheque
- Digital Signature.
- Letter of Authorization/ Board Resolution of Authorized signatory.

GST Composition Scheme

Composition Scheme is a simple and easy scheme under GST for taxpayers. Small taxpayers can get rid of tedious GST formalities and pay GST at a fixed rate of turnover.

This scheme can be opted by any taxpayer whose turnover is less than Rs. 75 Lakhs*.

Who can opt for Composition Scheme

A taxpayer whose turnover is below Rs 75 Lakhs* can opt for Composition Scheme. In case of North-Eastern states and Himachal Pradesh, the limit is now Rs 50* lakh.

As per the CGST (Amendment) Act, 2018, a composition dealer can also supply services to an extent of ten percent of turnover, or Rs.5 lakhs, whichever is higher. This amendment will be applicable from the 1st of Feb, 2019. Further, GST Council in its 32nd meeting proposed an increase to this limit for service providers on 10th Jan 2019*.

Turnover of all businesses registered with the same PAN should be taken into consideration to calculate turnover.

Who cannot opt for Composition Scheme

The following people cannot opt for the scheme-

- Manufacturer of ice cream, pan masala, or tobacco
- A person making inter-state supplies
- A casual taxable person or a non-resident taxable person
- Businesses which supply goods through an e-commerce operator

What are the conditions for availing Composition Scheme?

The following conditions must be satisfied in order to opt for composition scheme:

- No Input Tax Credit can be claimed by a dealer opting for composition scheme
- The dealer cannot supply GST exempted goods
- The taxpayer has to pay tax at normal rates for transactions under the Reverse Charge Mechanism
- If a taxable person has different segments of businesses (such as textile, electronic accessories, groceries, etc.) under the same PAN, they must register all such businesses under the scheme collectively or opt out of the scheme.
- The taxpayer has to mention the words ‘composition taxable person’ on every notice or signboard displayed prominently at their place of business.
- The taxpayer has to mention the words ‘composition taxable person’ on every bill of supply issued by him.

As per the CGST (Amendment) Act, 2018, a manufacturer or trader can now also supply services to an extent of ten percent of turnover, or Rs.5 lakhs, whichever is higher. This amendment will be applicable from the 1st of Feb, 2019.

How can a taxpayer opt for composition scheme?

To opt for composition scheme a taxpayer has to file GST CMP-02 with the government. This can be done online by logging into the GST Portal.

This intimation should be given at the beginning of every Financial Year by a dealer wanting to opt for Composition Scheme.

How Should a Composition Dealer raise bill?

A composition dealer cannot issue a tax invoice. This is because a composition dealer cannot charge tax from their customers. They need to pay tax out of their own pocket.

Hence, the dealer has to issue a Bill of Supply.

The dealer should also mention “composition taxable person, not eligible to collect tax on supplies” at the top of the Bill of Supply.

What are the GST rates for a composition dealer?

Following chart explains the rate of tax on turnover applicable for composition dealers:

Composition Scheme - Applicable GST Rates			
Type of Business	CGST	SGST	Total
Manufacturer and Traders (Goods)	0.5%	0.5%	1.0%
Restaurants not serving alcohol	2.5%	2.5%	5.0%
Other service Providers*	3.0%	3.0%	6.0%

How should GST payment be made by a composition dealer?

GST Payment has to be made out of pocket for the supplies made.

The GST payment to be made by a composition dealer comprises of the following:

- GST on supplies made.
- Tax on reverse charge
- Tax on purchase from an unregistered dealer*

*Only on the specified categories of goods and services and well as the notified class of registered persons with effect from 1st Feb 2019 but is yet to be notified. Hence, not applicable until then.

What are the returns to be filed by a composition dealer?

A dealer is required to file a quarterly return GSTR-4 by 18th of the month after the end of the quarter. Also, an annual return GSTR-9A has to be filed by 31st December of next financial year*.

What are the advantages of Composition Scheme?

The following are the advantages of registering under composition scheme:

- Lesser compliance (returns, maintaining books of record, issuance of invoices)
- Limited tax liability
- High liquidity as taxes are at a lower rate.

What are the disadvantages of Composition Scheme?

Let us now see the disadvantages of registering under GST composition scheme:

- A limited territory of business. The dealer is barred from carrying out inter-state transactions
- No Input Tax Credit available to composition dealers
- The taxpayer will not be eligible to supply exempt goods or goods through an ecommerce portal.

Input Tax Credit

Input credit means at the time of paying tax on output, you can reduce the tax you have already paid on inputs and pay the balance amount.

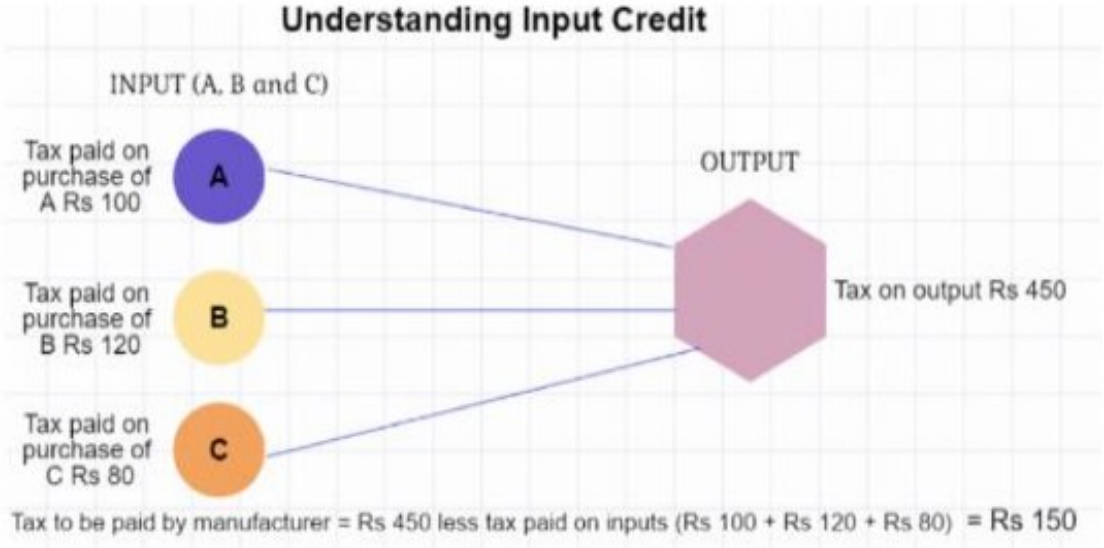
Here's how-

When you buy a product/service from a registered dealer you pay taxes on the purchase. On selling, you collect the tax. You adjust the taxes paid at the time of purchase with the amount of output tax (tax on sales) and balance liability of tax (tax

on sales minus tax on purchase) has to be paid to the government. This mechanism is called utilization of input tax credit.

For example- you are a manufacturer:

a. Tax payable on output (FINAL PRODUCT) is Rs 450
b. Tax paid on input (PURCHASES) is Rs 300
c. You can claim INPUT CREDIT of Rs 300 and you only need to deposit Rs 150 in taxes.



Who can claim ITC?

ITC can be claimed by a person registered under GST only if he fulfils all the conditions as prescribed.

a) The dealer should be in possession of tax invoice
b) The said goods/services have been received
c) Returns have been filed.

d) The tax charged has been paid to the government by the supplier.

e) When goods are received in installments ITC can be claimed only when the last lot is received.

f) No ITC will be allowed if depreciation has been claimed on tax component of a capital good

What can be claimed as ITC?

ITC can be claimed only for business purposes. ITC will not be available for goods or services exclusively used for: a. Personal use b. Exempt supplies c. Supplies for which ITC is specifically not available.

How to claim ITC?

All regular taxpayers must report the amount of input tax credit (ITC) in their monthly GST returns of Form GSTR-3B. The table 4 requires the summary figure of eligible ITC, Ineligible ITC and ITC reversed during the tax period. The format of the Table 4 is given below:

Details	Integrated Tax	Central Tax	State/UT Tax	Cess
1	2	3	4	5
(A) ITC Available (whether in full or part)				
(1) Import of goods				
(2) Import of services				
(3) Inward supplies liable to reverse charge (other than 1 & 2 above)				
(4) Inward supplies from ISD				
(5) All other ITC				
(B) ITC Reversed				
(1) As per rules 42 & 43 of CGST Rules				
(2) Others				
(C) Net ITC Available (A) – (B)				
(D) Ineligible ITC				
(1) As per section 17(5)				
(2) Others				

Reversal of Input Tax Credit

ITC can be availed only on goods and services for business purposes. If they are used for non-business (personal) purposes, or for making exempt supplies ITC cannot be claimed.

Apart from these, there are certain other situations where ITC will be reversed.

ITC will be reversed in the following cases

1) Non-payment of invoices in 180 days– ITC will be reversed for invoices which were not paid within 180 days of issue.
2) Credit note issued to ISD by seller– This is for ISD. If a credit note was issued by the seller to the HO then the ITC subsequently reduced will be reversed.
3) Inputs partly for business purpose and partly for exempted supplies or for personal use – This is for businesses which use inputs for both business and non-business (personal) purpose. ITC used in the portion of input goods/services used for the personal purpose must be reversed proportionately.
4) Capital goods partly for business and partly for exempted supplies or for personal use – This is similar to above except that it concerns capital goods.
5) ITC reversed is less than required- This is calculated after the annual return is furnished. If total ITC on inputs of exempted/non-business purpose is more than the ITC actually reversed during the year then the difference amount will be added to output liability. Interest will be applicable.

Special cases of ITC

- ITC for Capital Goods.
- ITC on Job work.
- ITC provided by Input service distributor.
- ITC on Transfer of Business.

VARIOUS RETURNS INVOLVED

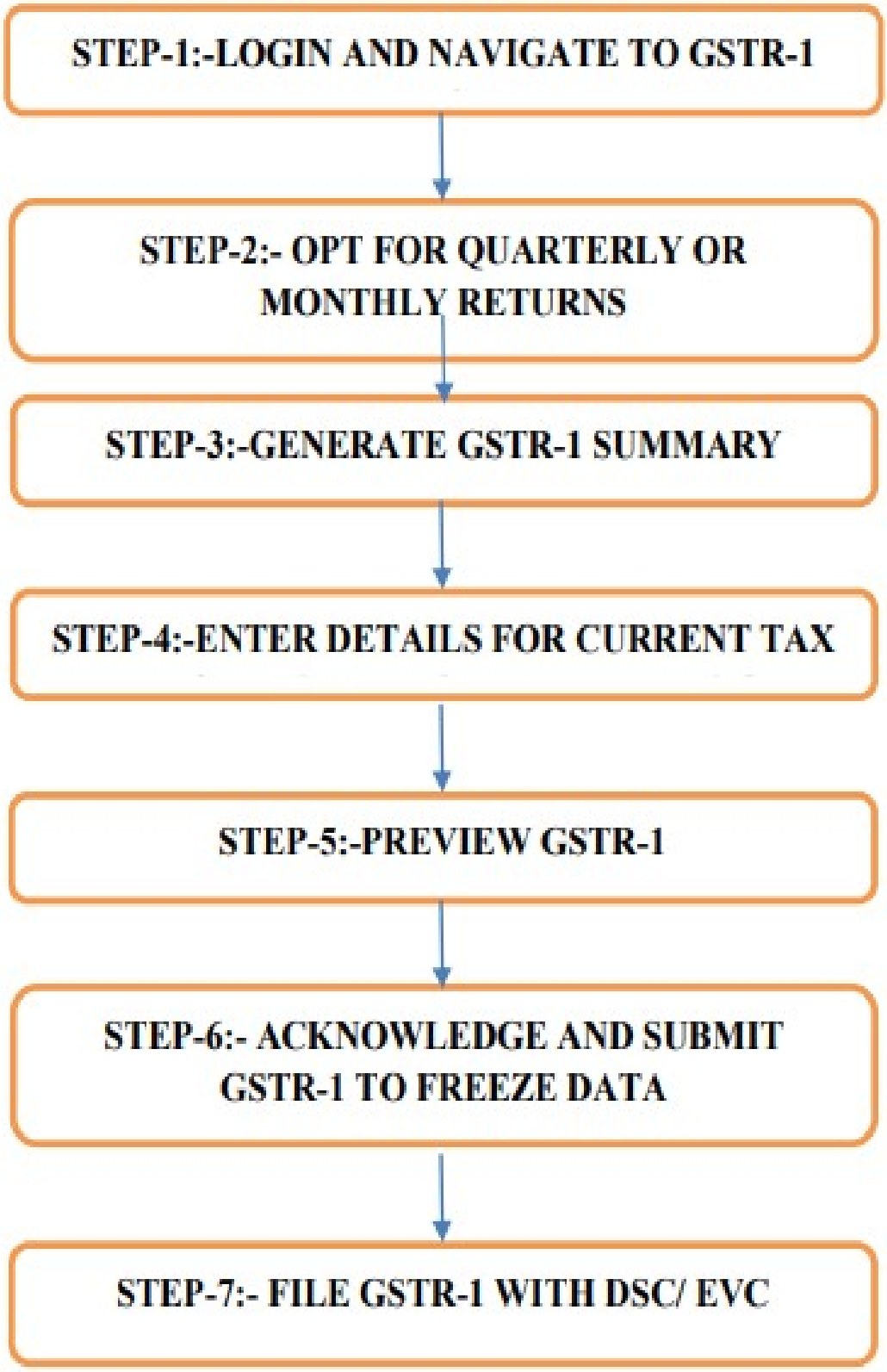
Types of GST returns	What is reported in this return?	Who needs to file this?	When is it to be filed?[1]
GSTR-1	Details of all outward supplies of goods and services during the specified period (invoices, debit, and credit notes)	All taxpayers registered under GST including casual taxable persons	• Monthly, by 11th of every month - If the taxpayer has an annual aggregate turnover over ₹5 Crore or has not opted into the QRMP Scheme[2] • Quarterly, by 13th of the month following every quarter - If the taxpayer has opted into the QRMP Scheme
GSTR-2A	View-only return containing details of purchases from GST registered suppliers. Data is auto-populated based on GSTR-1 returns filed by suppliers and is updated as and when such details are filed	Not applicable	No action required but can be used to check completeness of Input Tax Credit to be availed (on purchases made during a period)
GSTR-2B	View-only return containing details of Input Tax Credit available for a specified period. Data is auto-populated for the period based on returns filed by suppliers	Not applicable	No action required but provides details on eligible and ineligible Input Tax Credit
GSTR-3B	Self-declaration of all outward supplies made, Input Tax Credit claimed, GST payable, and GST paid for a month	All taxpayers registered under GST	• Monthly, by 20th of every month - If the taxpayer has an annual aggregate turnover over ₹5 Crore or has not opted into the QRMP Scheme • If the taxpayer has opted into the QRMP Scheme: 1. Quarterly, by 22nd of the month following the quarter for 'X' Category States[3] 2. Quarterly, by 24th of the month following the quarter for 'Y' Category States[4]

GSTR-4	Annual return consolidating details of all the filings for a financial year	Taxpayers registered under the Composition Scheme of GST	Annually, by 30th April of the year following the financial year
GSTR-5	Details of all outward supplies made, inward supplies received, credit or debit notes, GST payable and paid	Non-resident foreign taxpayers registered under GST carrying out business transactions in India	Monthly, by 20th of every month
GSTR-5A	Details of outward taxable supplies and GST payable	Online Information and Database Access or Retrieval Services (OIDAR) providers under GST	Monthly, by 20th of every month
GSTR-6	Details of Input Tax Credit received and distributed, documents issued for such distribution and the manner of distribution	Input Service Distributors	Monthly, by 13th of every month
GSTR-7	Details of Tax Deducted at Source (TDS), TDS payable and paid, TDS refund claimed if any	Persons required to deduct tax at source (TDS) under GST	Monthly, by 10th of every month
GSTR-8	Details of supplies made through an e-Commerce platform, and the Tax Collected at Source (TCS) on the same	e-Commerce operators required to collect Tax Collected at Source (TCS) under GST	Monthly, by 10th of every month
GSTR-9	Details of all outward supplies made, inward supplies received, and summary of supplies reported under every HSN code, along with details of taxes payable and paid. It is a consolidation of all monthly or quarterly returns filed during a financial year	• All taxpayers, except: Taxpayers who have opted for the Composition Scheme • Casual taxable persons • Input Service Distributors • Non-resident taxable persons • Persons paying TDS under Section 51 of the CGST Act As with previous years, this annual return is also expected to be optional for taxpayers with aggregate turnover of up to ₹2 Crore	Annually, by 31st December of the year following the relevant financial year
GSTR-10	Filed on cancellation or surrender of GST registration	Person whose GST registration has been cancelled or surrendered	Three months from the date of cancellation or surrender
GSTR-11	Details of inward supplies received, and refund claimed	Persons who have been issued a Unique Identity Number (UIN). UIN is given to foreign diplomatic missions and embassies not liable to tax in India, for the purpose of getting tax refund	By 28th of the month following the month in which inward supplies are received

- Out Of all these returns mainly GSTR-1 & GSTR-3B are involved in businesses daily work cycle

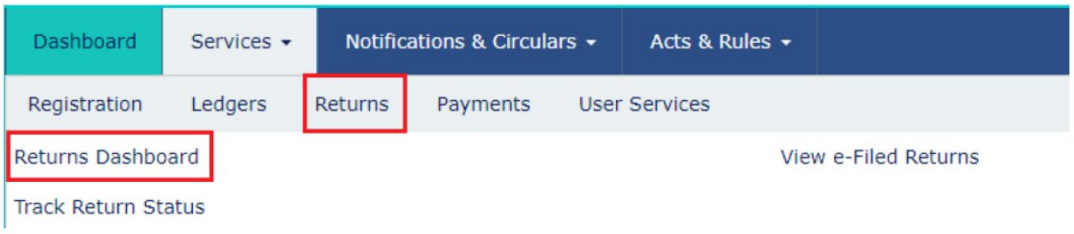
GST E-Filing system in India:

GST has been introduced in India completely in digital form registering for GST and filing of returns, paying tax liability etc., everything has been completely introduced in online digital platform which has become the big task for Traders to automate themselves to use the digital form of filing returns and paying tax. As it is compulsory that GST returns filing has to be done online, many of the Traders depend upon consultants, auditors and third parties for such filing services. This is again badly affecting on Traders' perception as it results in high expenses. The government of India has designed the GST portal in such a way that even a layman, with minimum computer knowledge, can file the returns on his own. These are the following steps which makes the filing of returns simple. The below shown steps were explained in detail along with the screen prints of respective GST portal pages for better understanding of GST e-filing of returns system: -

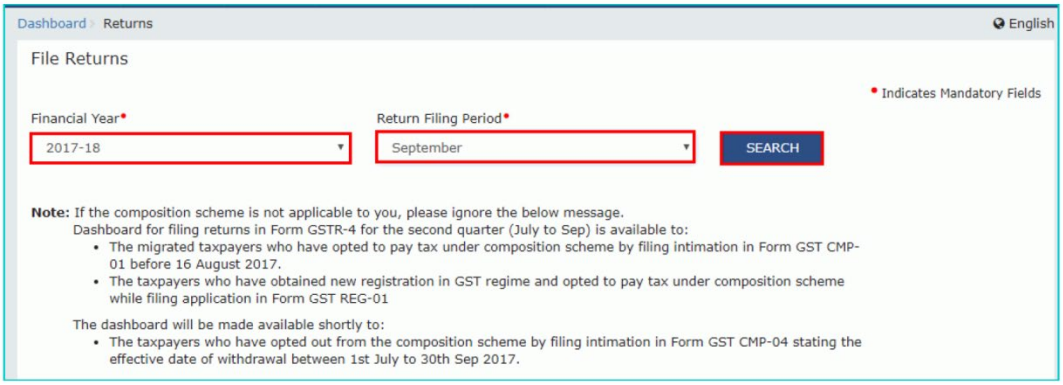


STEP-1:-LOGIN AND NAVIGATE TO GSTR-1 PAGE

1. Access the www.gst.gov.in URL. The GST Home page is displayed.
2. Login to the GST Portal with valid credentials i.e. your USERID and PASSWORD
3. Click the Services > Returns > Returns Dashboard command.



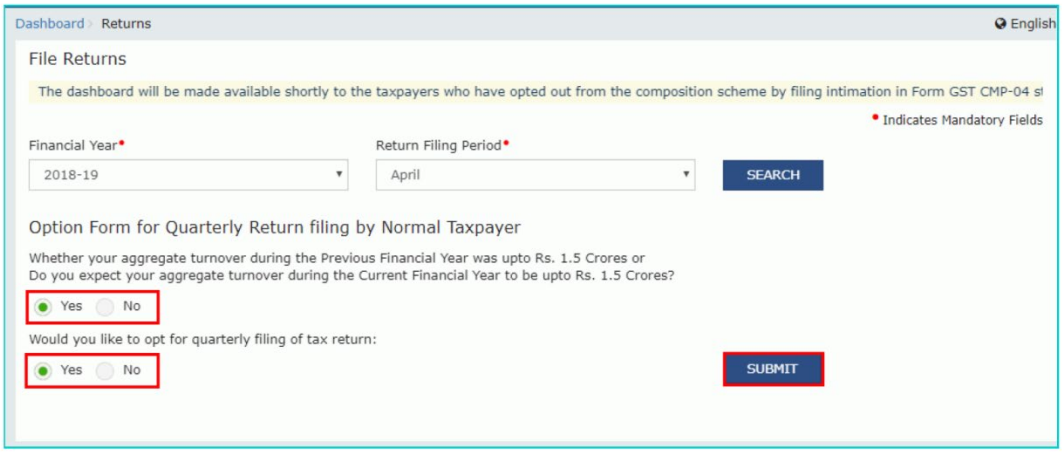
4. The File Returns page is displayed. Select the Financial Year & Return Filing Period (Month) for which you want to file the return from the drop-down list.
5. Click the SEARCH button.



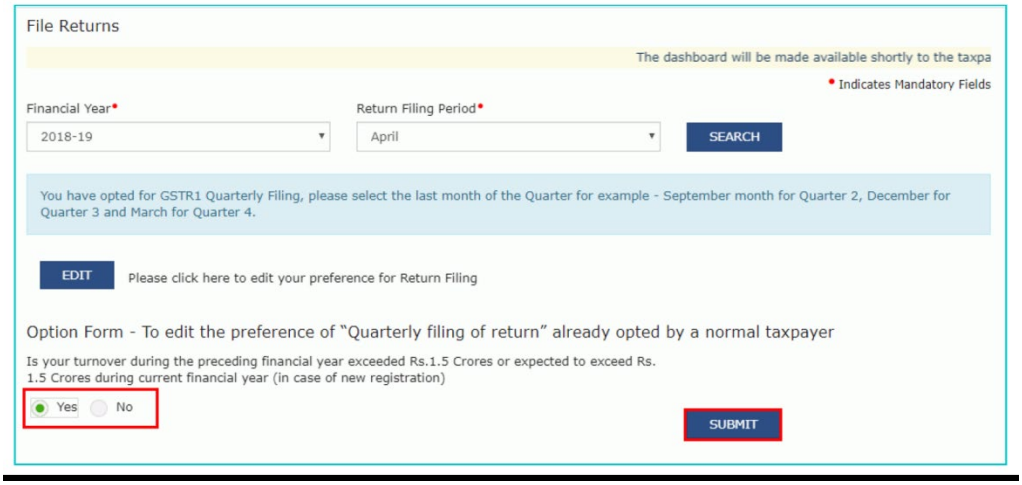
STEP-2:- OPT FOR QUARTERLY OR MONTHLY RETURNS:

The "**Option Form for Quarterly Return filing by Normal Taxpayer**" page is displayed. (A) Select Yes or No for "Whether your aggregate turnover during the Previous Financial Year was up to Rs.1.5 Crores or Do you expect your aggregate turnover during the Current Financial Year to be Upto Rs. 1.5 Crores?

1. Select Yes or No for would you like to opt for quarterly filing of tax return:

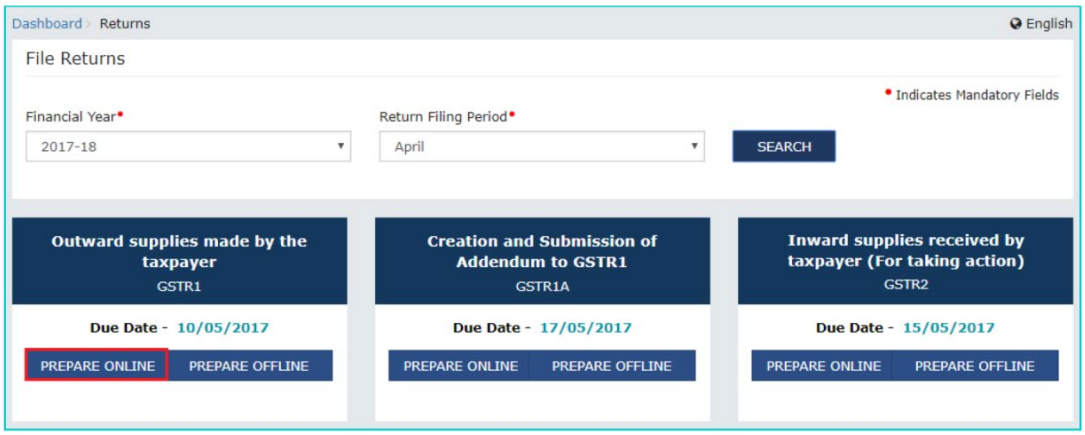


2. Click the SUBMIT button

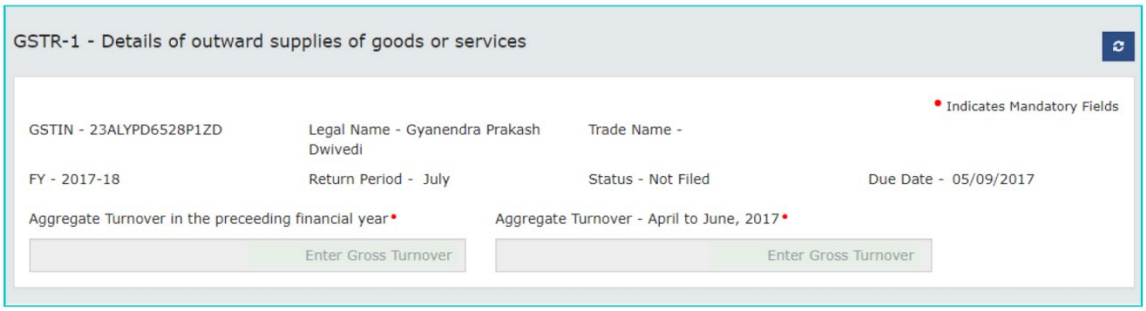


3. In case you want to change the preference for Return filing:
   a. Click the EDIT button.
   b. Edit the preference and click the SUBMIT button and a success message is displayed. Click the CLOSE button.

In the GSTR-1 tile, click the PREPARE ONLINE button if you want to prepare the return by making entries on the GST Portal.



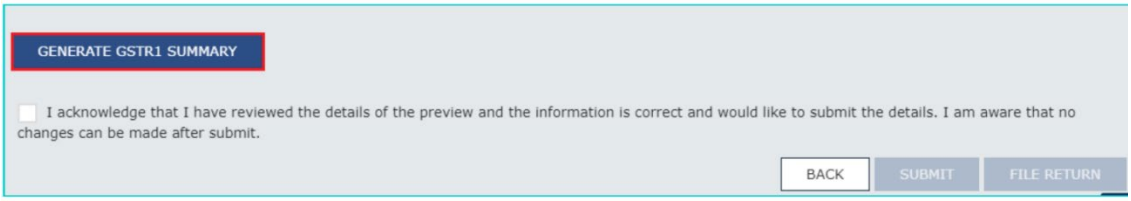
The GSTR-1 – Details of outward supplies of goods or services page is displayed. In first month, Turnover of 'Aggregate Turnover - April to June, 2017' will be there for Taxpayer to fill along with 'Aggregate Turnover in the preceding financial year' and then click on the SAVE button. This field is mandatory. You can proceed to furnish other details only after furnishing this information. From the next month, 'Aggregate Turnover in the preceding financial year' will be auto-populated based on previous tax period return.



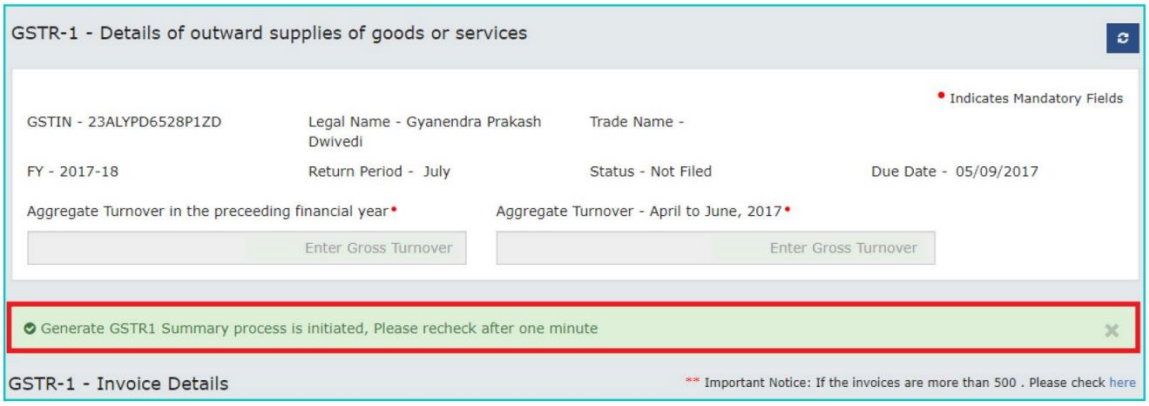
STEP-3:-GENERATE GSTR-1 SUMMARY

1. Scroll down to the bottom of the GSTR-1 – Details of outward supplies of goods or services page and click the GENERATE GSTR1 SUMMARY button to include the auto drafted details pending for action from recipients. The

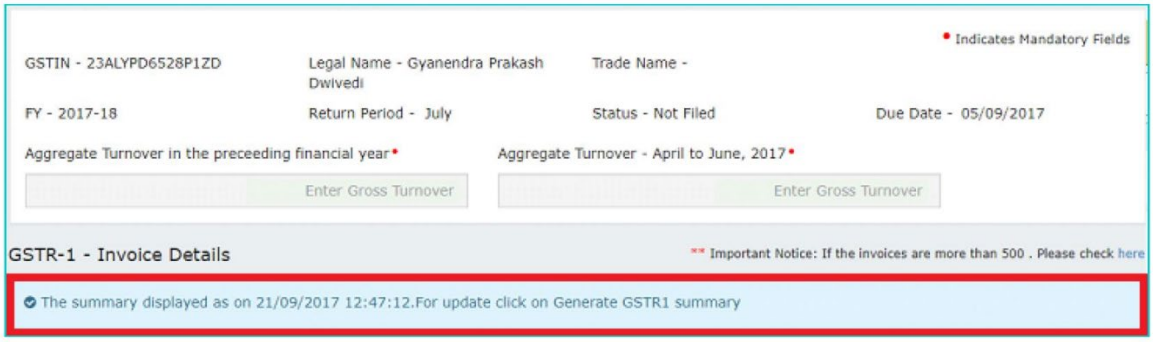
invoices that were missed to be included by you may have been added in the Uploaded by Receiver while filing his GSTR-2.



2. After the summary generation is initiated, you will notice the message to check after one minute.



3. After the summary is generated, you will notice a success message on top of the page.



4. The summary is generated by the GST Portal automatically at an interval of every .
5. In case you want to see the summary instantly, after you have added the invoices, you can also generate the summary by clicking the GENERATE

GSTR1 SUMMARY button. However, summary can be generated only at an interval of 10 minutes.

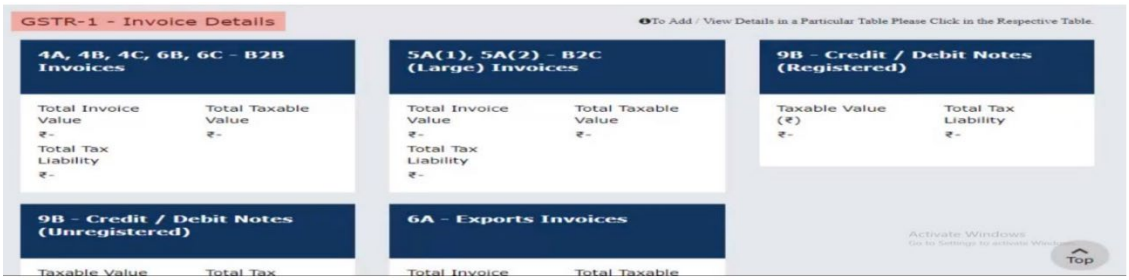
6. In case you attempt to generate summary, earlier than 10 minutes, you will notice an error message on top of the page.

STEP-4:- ENTER DETAILS FOR CURRENT TAX PERIOD, INCLUDING AMENDMENTS OF PREVIOUS

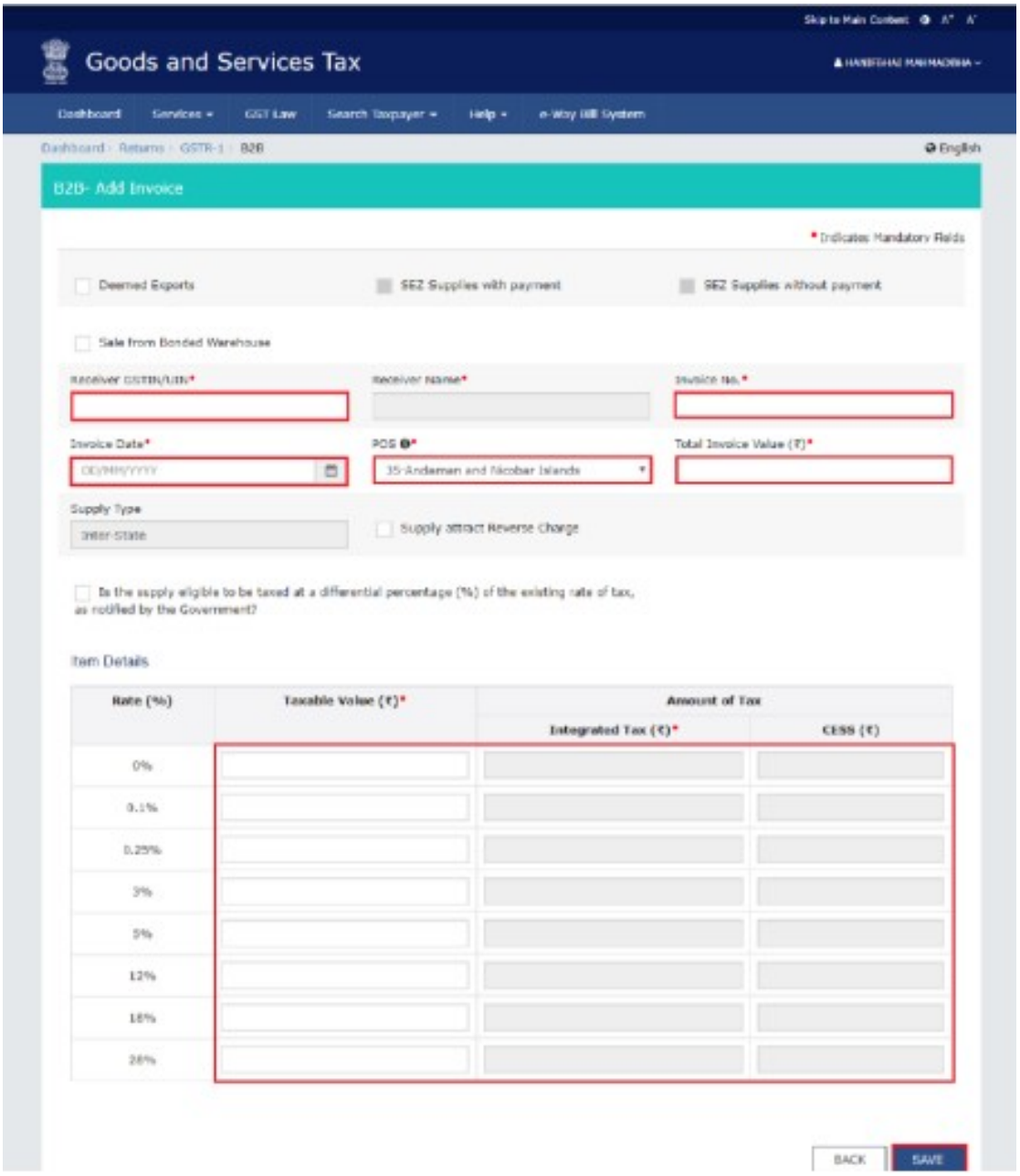
1. There are a number of tiles representing Tables to enter relevant details. Click on the tile names to know and enter related details:
2. GSTR-1 – Invoice Details
    1. 4A, 4B, 4C, 6B, 6C - B2B Invoices:
        - To add an invoice for taxable outwards supplies to a registered person
    2. 5A, 5B - B2C (Large) Invoices:
        - To add an invoice for taxable outwards supplies to a consumer, where place of supply is other than the State where supplier is located (Inter-state supplies) and invoice value is more than Rs. 2.5 lakhs.
    3. 9B –Credit / Debit Notes (Registered):
        - To add details of credit or debit notes issued to the registered recipients
        - To add details of credit, debit notes or refund voucher issued to the unregistered recipients
    4. 6A –Exports Invoices:
        - To add an invoice for supplies exported
    5. 9A – Amended Invoice:

- Amended B2B Invoice: To make amendments to details of outward supplies to a registered person of earlier tax periods
- Amended B2C (Large) Invoice: To make amendments to taxable outward supplies to an unregistered person of earlier tax periods
- Amended Exports Invoices: To make amendments to supplies exported

6. 9C – Amended Credit/ Debit Notes:
   - Registered: To make amendments to details of credit or debit notes issued to the registered recipients of earlier tax periods
   - Unregistered: To make amendments to details of credit or debit notes issued to the unregistered recipients of earlier tax periods



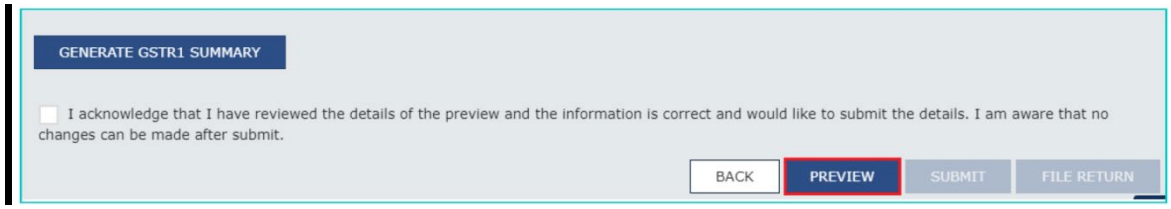
3. Select the respective portal, whichever is applicable, to you and you will be directed to the page were the entry of invoices has to be made as shown below.
4. After entering all the invoices in respective portals according to the tax rate applicable to it as shown above CLICK the SAVE option in the bottom.



STEP-5:-PREVIEW GSTR-1

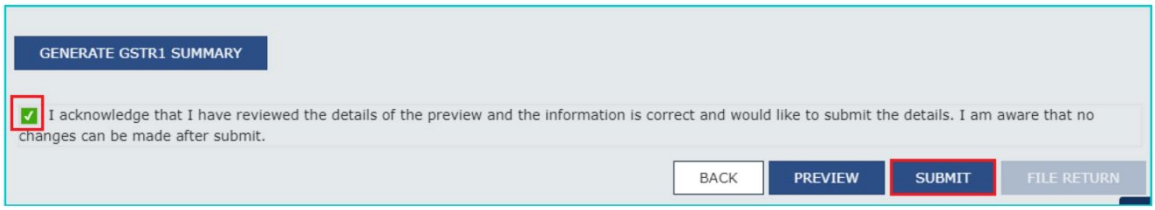
1. Once you have generated the GSTR-1 Summary to added invoices, click the PREVIEW button. This button will download the draft Summary page of your GSTR-1 for your review. It is recommended that you download this Summary page and review the summary of entries made in different sections with patience before submitting the

GSTR-1. The PDF file generated would bear watermark of draft as the details are yet to be submitted.

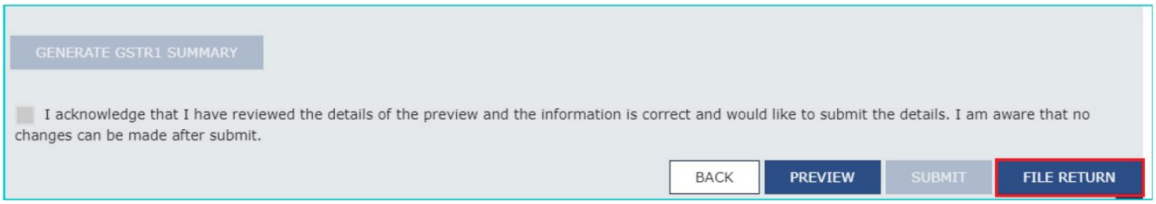


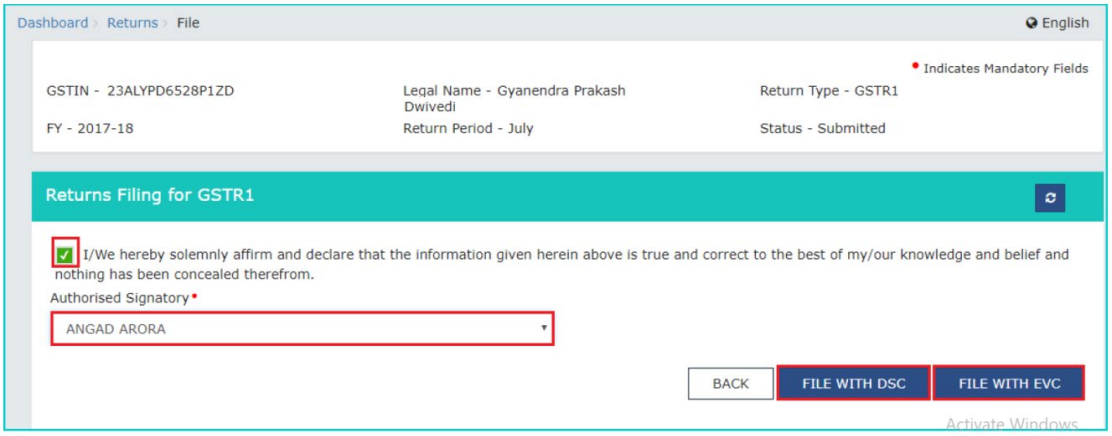
STEP-6:- ACKNOWLEDGE AND SUBMIT GSTR-1 TO FREEZE DATA

1. Select the acknowledgement checkbox stating that you have reviewed the details of preview and the information furnished is correct and are aware that no changes can be made after submission. Once you click the acknowledgement, the SUBMIT button will be enabled.



STEP-7:- FILE GSTR-1 WITH DSC/ EVC:





Stages of GST

There are multiple change-of-hands an item goes through along its supply chain: from manufacture to final sale to the consumer.

Let us consider the following case:

1) Purchase of raw materials.
2) Production or manufacture.
3) Warehousing of finished goods.
4) Sale to wholesaler.
5) Sale of the product to the retailer.
6) Sale to the end consumer.

Goods and Service Tax is levied on each of these stages which makes it is multi stage tax.

Important Aspects of GST

1. **Levy of GST:** The center will levy Central GST (CGST) and the states will levy State GST (SGST) on the supply of goods and services within a state. The center will levy IGST in the case of (i) inter- state supply of goods and services, (ii) imports and exports, and (iii) supplies to and from special economic zones.
2. **Exemptions from GST:** The Centre Exempt certain goods and services from the purview of GST through a notification. This will be based on recommendations of the GST Council.
3. **Turnover limit under GST and tax right over low turnover entities:** GST is applied when turnover of the business exceeds Rs 20 lakhs per year (Limit is Rs 10lakhs for the North-Eastern States). Traders who would like to get input tax credit should make a voluntary registration even if their sales are below Rs 20 lakh per year. Traders supplying goods to other states have to register under GST, even if their sale is less than Rs 40 lakh. There is a composition scheme for selected group of tax payers whose turnover is up to Rs 75 Lakh a year. (Rs. 50 Lakhs for North eastern States)
4. **The four-tier rate structure:** The GST proposes a four-tier rate structure. The tax slabs are fixed at 5%, 12%, 18% and 28% besides the 0% tax on essentials. Gold is taxed at 3%. The centre has strictly demanded and got an additional cess on demerit luxury goods that comes under the high 28% tax. Essential commodities like food items are exempted from taxes under GST. Other consumer goods which are common items will be taxed at 5%. GST seems to have two standard rates – 12% and 18%. GST rate structure for the goods and

services are fixed by considering different factors including luxury/necessity nature.

5. **Tax revenue appropriation between the center and states:** The center and states will share GST tax revenues at 50:50 ratio(except the IGST). This means that if a service is taxed at 18%, 9% will go to the center and 9% will go to the concerned state.
6. **Taxable amount (value of supply):** The GST levied on the supply of goods and services, whose value will include: (i) price paid on the supply, (ii) taxes and duties levied under other tax laws, (iii) interest, late fee, penalties for delayed payments, among others.
7. **Refunds and welfare fund:** Any taxpayer may apply for refund of taxes in cases including: (i) payment of excess taxes, or (ii) unutilised input tax credit. The refund may be credited to the taxpayer, or to a Consumer Welfare Fund under certain circumstances.
8. **Returns:** Every taxpayer should self-assess and file tax returns on a monthly basis by submitting: (i) details of supplies provided, (ii) details of supplies received, and (iii) payment of tax. In addition to the monthly returns, an annual return will have to be filed by each taxpayer.
9. **Apportionment of IGST revenue:** The IGST collected will be apportioned between the center and the state where the goods or services are consumed. The revenue will be apportioned to the center at the CGST rate, and the remaining amount will be apportioned to the consuming state.

10. **Dual Tax Structure:** Centre and State both will levy tax on every transaction related to supply of goods/ services. Tax to be levied by Centre and States to be called Centre GST ('CGST') and State GST ('SGST').
11. **Supply without consideration:**
    - Supply between two distinct establishments of same legal entity taxable even without consideration.
    - Supply of goods between agent and principal taxable
    - 'Gifts' by employer and employee for an amount exceeding INR 50,000 taxable
12. **Imports/Exports:**
    - Imports will be treated as inter - state supplies and would attract IGST, apart from BCD on goods.
    - Exports to be zero rated.
13. **Exemptions / Concessions:**
    - Exemption to various goods and services.
    - Existing incentive schemes to be converted to 'reimbursement route'.
    - Certain petroleum products though in GST, would continue to attract present taxes. GST to be activated at a later date.

DRAWBACKS OF GST

1. According to the experts, terms such as GST which includes CGST, SGST, and IGST is nothing but just a new name in accordance with the existing tax systems. Kind of old wine in a new bottle.
2. The Service Tax which stood at 15% in the previous regime has now been replaced with GST at 18%. As such many services have become costlier with telecom, airline and banking affected majorly. In fact, insurance and petroleum are also said to be majorly affected by the enactment of GST Tax.
3. The GST Act has given the control of businesses to Central and State Governments with businessmen binding by-laws. This has given rise to complexity for many businessmen across the nation.
4. Post GST implementation, the first few instances of application have resulted in high tax outgo for businesses. Businesses are trying to claim the credit of input tax but several cases of mismatch of data are coming up. As a result, there is chaos among the tax filers.
5. The opposition has called it as a Disability Tax as many of the things related to disabled people which were earlier tax-free are now included in GST taxation. Prior to implementation of GST, brail paper, typewriter, hearing aid and motorised wheelchair were tax-free whereas these things are being taxed now. The opposition has made pleas to roll back the tax on such items.
6. On one end, the government is trying to give a push to banking services and insurance in India and on the other end, the government has decided to tax

banking and insurance service at higher rates when compared to the previous rates.

7. GST has also had an impact on discount and reward programs as well. The product is being taxed on the rates pre-discount whereas the products were earlier taxed at post discount prices. Most of the companies have also suspended reward programs for temporary basis because of complexities of GST.
8. The government has chosen a mid-year launch for GST and this will lead to problems in taxation and reporting during the end of the financial year. Ideally, the government should have launched GST at end of financial year as this would have avoided a lot of confusion during taxation and reporting.
9. As per GST, the seller requires registering in all the states that it does business in and it has increased the complexity for the seller. The government should have created a provision for centralised registration of State GST as this would have helped many sellers during the rollout.

Impacts of GST on Common Man

The GST transition has been smooth. The big question is how GST will impact a common man's budget. GST is stated to be one of the biggest tax reforms in India, which would not only impact the business but also common man. The primary impact to be felt by the consumers would change in prices of goods and services on

account of GST rates. In terms of impact in prices, while services would mostly be more expensive in the initial phases, impact on prices of goods could be a mixed bag. In the long run, once the benefits of GST are expected to kick in in terms of higher input credits and reduction in cascading effect, it is anticipated that the inflationary effect will come down and prices, in general, would come down and stabilize.

In services, the tax rate has increased from 15% to 18%. The 3% increase could potentially mean an increase in the price of services by 3% for the common man, in the short run.

EXPENSES	EXAMPLES
RESTAURANT BILLS	▶A customer visits a restaurant & purchases a meal for ₹1,000 in Delhi ▶Under earlier regime, VAT @ 12.5% and service tax @ 6% was charged. Thus, the customer used to pay ₹185 as tax ▶Under GST, a meal at an air-conditioned restaurant shall attract 18%. Thus, the customer pays ₹180 as tax ▶Effectively, no substantial impact on restaurant bills
AIR TRAVEL	▶A customer travels in domestic economy class on a ticket of ₹1,000 ▶Under earlier regime, service tax at 6% was levied – amounting to ₹60 ▶Under GST, economy class is taxable at 5%. Thus, there would be minor savings in economy class ▶In case the customer travelled business class, GST rate has increased to 12% from 9% under service tax. ▶Thus, business class would be expensive.
HOLIDAYS	▶A customer stays in a hotel which has tariff of ₹8,000 a night ▶In pre-GST regime, the gross indirect tax rates (service tax + luxury tax) ranged from 19% to 25%, depending on rate of luxury tax in a state. Thus, total tax could be between ₹1,520 and ₹2,000 ▶Under GST, for tariff above ₹7,500, tax would be applicable at 28%, resulting in tax incidence of ₹2,100. Thus, higher tier hotels are going to be more expensive under GST ▶The lower tier hotels could be cheaper under GST, since tariffs between ₹1,000 and ₹2,500 would have GST of 12%, and between ₹2,500 and ₹7,500 would have GST of 18%
CAB EXPENSES	▶A customer takes an Ola or Uber and the ride costs ₹100 ▶There is a marginal saving since cab facilities would attract GST at 5% as compared to 6% service tax
BANKING AND INSURANCE	▶These services will primarily have a 3% increase in rate (from 15% service tax to 18% GST). Thus, these services will be more expensive
OTHER HOUSEHOLD EXPENSES	▶Food items have been kept in the range of 0-5% under the GST regime. Food prices are unlikely to go up ▶FMCG products like packaged food, shampoos, soaps, tissue papers, toothpaste, pharma products, electronic items like TV and coolers etc. to become cheaper ▶Services like salon, dry cleaning and telecommunications to become more expensive due to 3% increase in tax rate
REAL ESTATE	▶A customer buys under-construction property for ₹1 crore. ▶Under earlier regime, rate of around 5.5% was levied (both VAT and service tax), but varied from state to state. Under GST, a rate of 12% will be levied resulting in inflation in initial period ▶Prices of ready-to-move-in apartments with completion certificates would remain steady as these are out of GST ambit

LEARNING EXPERIENCE

- Performed Taxable Turnover by calculating GST of the respective client companies.
- Understanding the GST scheme i.e. regular and composite based on which the GST filing needs to be done.
- Filing various GSTR forms based on monthly transactions made by the client companies.
- Computing taxable income from various sources.
- Learning the various tax deductions and how individuals can avail them to reduce the tax burden.
- Understanding the functioning of Tally and its importance for compliance purpose.
- Bank statements, Bills of Sales and Purchases entered into Tally for the respective client companies.

CONCLUSION

From the foregoing description, it is evident that GST is essentially an indirect tax that unifies the majority of national taxes levied on the production, sale, and consumption of goods and services. Currently, taxes are assessed separately for goods and services. The GST is a combined tax that is due at the point of final consumption and is based on a consistent rate of tax imposed for both goods and services. Every phase of the selling or purchase Through a tax credit structure, this tax is collected along the supply chain on value-added products and services.

The adoption of the Value Added Tax (VAT) at the Central and State levels has been hailed as a significant step forward in India's indirect tax reform efforts. The Goods and Services Tax (GST) will be a further significant improvement and the logical next step towards a comprehensive indirect tax reform in the country if the VAT is a significant improvement over the pre-existing Central Excise Duty at the National Level and the Sales Tax System at the State Level. Most of the existing difficulties with this change will be history once GST is implemented. There would be fewer regulatory requirements for firms to cope with when India unifies into a single market where commodities may flow freely. There is little doubt that the advantages of GST will exceed the drawbacks. In conclusion, this internship has been a fantastic and fulfilling experience. I hope that the connections I have made will allow me to assist others find opportunities in the future. My internship has helped me develop my time management and motivational abilities, among other things. I didn't believe I would be able to force myself to work in an office for eight hours a day, five days a week when I initially started. I planned my day and work when I became aware of what I needed to do to avoid duplicating or wasting time. I discovered that I needed to plan ahead and have questions prepared for when it was appropriate to get feedback. I had to learn how to motivate myself via my internship and time management because I had to spend so much time at the workplace.

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MASTER OF FINANCE AND CONTROL

UNIVERSITY COLLEGE OF COMMERCE & MANAGEMENT STUDIES

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Project

Report ON

Detailed Technical Analysis of 10 Indian Stocks

Submitted in the fulfilment for the Project Report and Presentation

as the requirement for the completion of

Master of Finance and Control

Degree (2021-2023)

Submitted By:

Keshav Soni

Under Supervision of:

Dr. Shilpa Vardia

Certificate

This is to certify that **Keshav Soni** student of MFC IV Semester from the University of Commerce and Management Studies, Mohanlal Sukhadia University, Udaipur has completed his project report on the topic **Technical Analysis of 10 Indian Stocks** as part of the curriculum for IV semester under my supervision and he has completed his work satisfactorily

Dr. Jyoti Jain

Project Guide

Place: Udaipur

Date:

ABSTRACT

The study relates to "**Detailed Technical Analysis of 10 Indian Stocks**" with the goal of analysing and comprehending equity shares Listed on BSE. The study is entirely supported by secondary data that was gathered from corporate reports and websites.

A stock market is a public marketplace where securities, both those listed on a stock exchange and those exclusively traded privately, can be sold for a predetermined price in return for company stock and derivatives.

The study's goals include analysing share price fluctuations, comparing such fluctuations to the market, and identifying future trends.

In order to determine the share prices, the data were analysed using the Simple moving average, Exponential moving average, Rate of Change, and Relative Strength Index. The percentage change in the share's market price throughout the course of the study is also identified using trend analysis.

In order to understand the notion of technical analysis, a study on the technical analysis of 10 stocks has been conducted. The project report includes suggestions based on the results and conclusion and covers firm description, industry profile, theoretical backdrop of the study, data analysis, and interpretation. The company's financial statements are also included.

The study's main goals are to understand the technical analysis of particular industries on the stock market and to identify the best indicators for particular businesses. Technical analysis is used to analyse each graph. The technical indicators of many industries are used in technical analysis.

These studies help you make the greatest investment decisions.

Acknowledgement

No good task can be completed without the help of others. After the completion of this project, I feel it is necessary to think about who helped me and co-operated during the project.

I would like to take an opportunity to express the feeling of gratitude towards **UCCMS, Mohanlal Sukhadia University** as a part of Comprehensive Project Report as a duty of the syllabus of MFC course.

I take the opportunity to express my deep sense of gratitude to **Dr SHILPA VARDIA,** Assistant Professor and MFC Course Coordinator, for her indirect but consistent encouragement to the research and development.

I express my profound sense of gratitude to **Dr JYOTI JAIN,** my project guide, who provided me with undeviating encouragement, indefatigable guidance and valuable suggestions throughout the research project.

I am very sincerely & heartily grateful to her for providing me a great break by selecting me as a researcher under her.

Last but not the least, I would like to thank my family and my friends for supporting me spiritually throughout writing this report.

KESHAV SONI

CONTENTS

CHAPTER	TITLE	PAGE
I	**INTRODUCTION**	**1-7**
II	**RESEARCH METHODOLOGY**	**8-9**
III	**THEORITICAL FRAMEWORK**	**10-40**
	Technical Indicators	**12-26**
	Moving Averages	**12-16**
	MACD	**16-18**
	Relative Strength Index	**18-23**
	Commodity Channel Index	**24-26**
	Candlestick Patterns	**27-40**
IV	**DATA COLLECTION AND ANALYSIS**	**41-50**
V	**FINDINGS**	**51**
VI	**CONCLUSIONS**	**52-53**
VII	**SUGGESTIONS**	**54-55**

CHAPTER-I INTRODUCTION

1.1 INDUSTRY INTRODUCTION

BOMBAY STOCK EXCHANGE:

It is the oldest stock exchange not only in India but also in Asia. It was the first exchange to receive recognition from the Indian Government.

BSE online trading (BOLT) facilitates online screen based trading in securities. BSE reaches over 400 cities across India.

SENSEX:

Sensex has become the barometer of the Indian Stock Market. It comprises 30, well- established and financially sound companies.

Sensex, first compiled in 1986, was calculated on a "Market Capitalization-Weighted Method". The base year of Sensex is 1978-79.

Right now, Sensex is calculated using the "Free-float Market Capitalization" methodology.

COMPANY OVERVIEW:

Established in 1875, BSE (formerly known as Bombay Stock Exchange), is Asia's first & the Fastest Stock Exchange in the world with the speed of 6 micro seconds and one of India's leading exchange groups. Over the past 143 years, BSE has facilitated the growth of the Indian corporate sector by providing it an efficient

capital-raising platform. Popularly known as BSE, the bourse was established as The Native Share & Stock Brokers' Association in 1875. In 2017 BSE became the 1st listed stock exchange of India.

Today BSE provides an efficient and transparent market for trading in equity, currencies, debt instruments, derivatives, mutual funds. BSE SME is India’s largest SME platform which has listed over 250 companies and continues to grow at a steady pace. BSE STAR MF is India’s largest online mutual fund platform which processes over 27 lakh transactions per month and adds almost 2 lakh new SIPs every month. BSE Bond, the transparent and efficient electronic book mechanism process for private placement of debt securities, is the market leader with more than Rs 2.09 lakh crore of fund raising from 530 issuances. (F.Y. 2017- 2018).

Keeping in line with the vision of Shri Narendra Modi, Honourable Prime Minister of India, BSE has launched India INX, India's 1st international exchange, located at GIFT CITY IFSC in Ahmedabad. Indian Clearing Corporation Limited, a wholly owned subsidiary of BSE, acts as the central counterparty to all trades executed on the BSE trading platform and provides full novation, guaranteeing the settlement of all bonafide trades executed.

BSE Institute Ltd, another fully owned subsidiary of BSE runs one of the most respected capital market educational institutes in the country.

BSE has also launched BSE Sammaan, the CSR exchange, is a 1st of its kind initiative which aims to connect corporate with verified NGOs

BSE's popular equity index - the S&P BSE SENSEX - is India's most widely tracked stock market benchmark index. It is traded internationally on the EUREX as well as leading exchanges of the BRCS nations (Brazil, Russia, China and South Africa).

VISION

"Emerge as the premier Indian stock exchange with best-in-class global practice in technology, products innovation and customer service."

CSR (Corporate Social Responsibility)

Corporate Social Responsibility (CSR) in BSE is aligned with its tradition of creating wealth in the community with a focus on Education, Health and the Environment.

Besides funding charitable causes for the elderly and the physically challenged, BSE has been supporting the rehabilitation and restoration efforts in earthquake-hit communities of Gujarat. BSE has been awarded the Golden Peacock Global - CSR Award for its initiatives in Corporate Social Responsibility (CSR) by the World Council of Corporate Governance.

AWARDS AND RECOGNITIONS

As a pioneering financial institution in the Indian capital market, BSE has won several awards and recognitions that acknowledge the work done and progress made.

- IT Genius Awards 2017 in the category Data Centre Excellence for setup of the India INX Data Centre by CORE (Centre of Recognition & Excellence)
- Digital Innovation Award 2017 for the Social Media Analytics Project by Netmagic
- Business World Digital Leadership and CIO Award
- The IDC Digital Transformation Awards 2017
- The Best Exchange of the year award for equity and currency derivatives in Tefla's Commodity Economic Outlook Award 2017
- Best Brand award 2017 by Economic Times
- CIO POWER LIST 2017

- Best Corporate film encompassing Vision, History, Value and Spirit of Excellence award, Best Corporate film on Employer Branding award and Most Influential HR Leaders in India award at World HRD Congress 2017
- 'Best Exchange of the year' award at 4th India Bullion & Jewellery awards 2017
- Red Hat Innovation Awards 2016 by Red Hat Solutions
- Skoch Achiever Award 2016 for SME Enablement
- Best IT Implementation Award 2016 in the Most Complex Project Category by PCQuest
- InfoSec Maestros Awards 2016.
- Lions CSR Precious Awards 2016
- Golden Peacock Award 2015
- CIO Power List 2015
- SKOCH Rennaissance Award 2014 for Contribution to Economy
- SKOCH Rennaissance Award 2014 for Corporate Social Responsibility
- Netmagic Innovative Champion Award IT Consolidation growth & Scalability 2014
- India Innovative Awards- Big Data Innovation 2014
- ET Now CISCO Technology Awards 2014
- Unicom India Top 50 companies with best software 2014
- HR was awarded with Asia's Best Employer Brand Awards at Singapore in two categories in Aug 2014
- Asia's Best Employer Brand Award
- CHRO of the Year Award
- Lokmat HR Leadership Award at Mumbai in June-2014
- 50 most talented global HR leaders in Asia at the World HRD congress at Mumbai in Feb-2014
- FIICI-Frames Best Animation Film-International Category for the Investor Education television commercial
- India Innovation Award for Big Data Implementation
- ICICI Lombard & ET Now Risk Manager Award in BFSI Category

- SKOCH Order of Merit for E-Boss for qualifying among Indias Best 2013
- Indian Merchant Chamber Award in the Large Enterprise Category for use of Information Technology
- Best Managed Financial Derivatives Exchange in the Asia Pacific by the The Asian Banker
- The Golden Peacock Global CSR Award for its initiatives in Corporate Social Responsibility
- BSE has won NASSCOM - CNBC-TV18s IT User Awards, 2010 in Financial Services category
- BSE has won Skoch Virtual Corporation 2010 Award in the BSE Star MF category
- Responsibility Award (CSR), by the World Council of Corporate Governance

ACHIEVEMENTS

At par with international standards, BSE Ltd. has been a pioneer in several areas over the decades and has many firsts and key achievements to its credit.

BSE is the first exchange in India to

- Launch a special platform for trading in SME securities
- Introduce Equity Derivatives
- Launch a Free Float Index - S&P BSE SENSEX
- Launch Exchange Enabled Internet Trading Platform
- Obtain ISO certification for a stock exchange
- Exclusive facility for financial training BSE Institute Ltd.
- Launch its website in Hindi and regional languages
- Host the popular opening-bell ceremony in Indian capital markets
- Launch mobile-based trading in India in Sept 2010
- Become securities market infrastructure member of SWIFT in India and provide corporate actions to custodians in ISO 15022 format
- Launched S&P BSE SENSEX Realized S&P BSE Volatility (REALVOL) Index in Nov 2010
- Besides the above, BSE has taken large strides in product and service innovation for the benefit of its members and investors, notable ones being
- Launch of a reporting platform for corporate bonds

- Launch of the S&P BSE IPO index and S&P BSE PSU website
- Revamp of its website with wide range of new investor-friendly features
- Launch of trading in S&P BSE SENSEX futures on EUREX and leading exchanges of the BRICS nation bloc
- Launched Smart Order Routing for members and investors
- Introduced SACT (SMS alert & Complaint Tracking system)
- Launched co-location facility at BSE premises in November 2010
- Reduction in membership fees to Rs.10 lac for new memberships to promote financial access and inclusion
- Launch of web-based mutual fund trading platform for investors

NATIONAL STOCK EXCHANGE (NSE)

NSE commenced its operations in the Wholesale Debt Market (WDM) in April 1994 and in the Capital Market (Equities) segment in June 1994.

It formed the first clearing corporation (NSCCL), which carries out clearing and settlement of trades executed in equities and Derivatives segments.

Since then it has evolved to be the highest volume generating Exchange in India. It has got the widest network of terminals across India. They also provide online trading facilities over the internet.

S&P CNX NIFTY:

Nifty is a well-diversified 50 stock index accounting for 22 sectors of the economy. This Index was launched in 1996. It is the first index constructed by the National Stock Exchange.

Its construction is slightly different from that of Sensex. Sensex measures the floating capitalization of its constituents, however, Nifty is a step behind, it takes the full capitalization of its 50 constituents.

Nifty was first compiled in 1955 with a base value of 1000.

It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds.

Currently Futures and Options are available on Nifty.

INTRODUCTION

Powered by millions of dreams, hopes and aspirations, India today is brimming with potential. At NSE, we are driven by this ambition that makes India charge ahead and take a more prominent place on the global stage.

We aim to catalyze India's growth story by creating investment opportunities, enabling access and empowering our stakeholders. We work harder, smarter and faster to deliver impact across the investment ecosystem. In a world that changes shape by the second, we constantly reinvent ourselves to redefine the future.

PURPOSE

Committed to improving the financial well-being of people.

VISION

To continue to be a leader, establish global presence, and facilitate the financial well-being of people.

VALUES

NSE is committed to above core values.

HISTORY & MILESTONES

NSE's sustained leadership positions across asset classes in the Indian and global exchange sectors demonstrates the robustness and liquidity of our exchange.

NSE was incorporated in 1992. It was recognised as a stock exchange by SEBI in April 1993 and commenced

operations in 1994 with the launch of the wholesale debt market, followed shortly after by the launch of the cash market segment.

CHAPTER-II RESEARCH METHODOLOGY

2.1 PROJECT TITLE

"Detailed Technical Analysis of Top 20 Indian Stocks"

2.2 STATEMENT OF PROBLEM

It is difficult to decide whether to sell or buy the particular stock for maximum profit. So that knowledge of technical analysis is important to all the traders.

2.3 OBJECTIVES OF STUDY

- To forecast the direction of the future price
- To organize the overall market picture while it lays the path to rule based trading.
- To analyse the performance of selected companies in the Indian stock market and predict the future trends in the share prices.

2.4 SIGNIFICANCE OF STUDY

- Technical Analysis is useful for short term traders as well as long term traders to buy and sell securities.
- It is useful for investors and traders.
- Technical analysis is useful for determining the future price of the share and conditions of a company.

2.5 SCOPE OF STUDY

- The scope of technical analysis is increasing every day, as more and more people are trying to learn the skills of technical analysis to earn good returns.
- In this study 10 companies of different industries are selected for effective analysis.
- In this study, data is selected for one year.
- In this study RSI, MACD, CCI, moving average these tools (indicators) are selected.

2.6 RESEARCH DESIGN

The study is based on Descriptive research design.

2.7 TYPES OF DATA

Secondary data is used for technical analysis.

2.8 SOURCES OF DATA

Data is collected through secondary data sources. i.e. Website like https://in.tradingview.com, www.investing.com

3.9 SAMPLING METHOD

The study is based on the Judgemental Sampling Method.

3.10 SAMPLE PERIOD

Data of last one year i.e. 1st May 2022 To 30th April 2023 are analyses, Interpret and forecast

3.11 TOOLS AND TECHNIQUES FOR DATA ANALYSIS

- In this study Candlestick Chart pattern is used.
- In this study RSI, MACD, CCI, Moving average these tools (indicators) are selected.

3.12 LIMITATION OF STUDY

- The analysis uses limited technical tools out of various tools.
- Personal biases could keep into analyst's interpretation
- It is probabilistic study and not deterministic study

CHAPTER-III THEORETICAL FRAMEWORK

INTRODUCTION TO TECHNICAL ANALYSIS:

Technical analysis is the examination of past price movements to forecast future price movements.

A technical analysis believes with the help of charts it is possible to identify a trend, Invest or trade based on trend and make money as the trend unfolds. The Objective of technical analysis is to forecast the direction of the future price. It serves the purpose of a map. When we set out on a trip, if we venture into unknown terrain without a map, we can get lost. Same way without proper study, if we invest or trade in the market, it is like trying to aim by firing in the dark. Short term traders can take advantage of Charts by knowing short term supports and resistances, and make the most of it.

Long term investors can use technical analysis to know the long-term trends, so that they can stay invested and cancel out the short-term volatilities, which could make them worry. On the other hand short-term traders can use the same volatility to their advantage, and based on various support and resistances, they can trade various ranges.

If we take the stock market as a battlefield, then technical analysis serves the purpose of weapons. If we enter the battlefield without any weapons at hand, the result is evident to all. So, without the knowledge of technical analysis, if you enter the stock market, it is like entering the battlefield bare handed. To do so is not courage, but foolishness. If you want to win in the stock market, you have to acquire the necessary skills to win in it. By not doing this,

WHY MORE EMPHASIS ON TECHNICAL ANALYSIS?

As we can see today, investing just on the basis of fundamental analysis has also become a hazardous thing to do. Companies can manipulate their balance sheets, and take their share prices to the roof, but when the bubble bursts, the same company can go bust faster than it went up.

During such times, "what do you think" is a question, which no one can answer; in fact, it is a question that becomes irrelevant in such circumstances.

Under such circumstances, when a major level is broken one has to exit immediately. With the help of technical

analysis, we can do this.

This does not mean that all companies manipulate their balance sheet. So we must never ignore the fundamentals, but keep a balance and, based on technical signals, make the right decision.

Even when fundamentals look good, if there is some problem, most of the time, you can spot it in the charts. Even if you are sitting in the best car in the world, if it starts going downhill, you have to jump out of it. At that time, you have no time to think, "Why this is happening" or "This can't be happening". You just have to jump out of it and save your life.

The main basis of technical analysis is the rise and fall of prices and the charts that are prepared from such price data. Based on study of various types of charts, and indicators, it is decided whether it is the right time to enter or exit a stock. To decide whether a particular stock is at top or bottom in the selected time frame, charts are used.

Those who are long term investors, they can ignore the short term ups and downs, and focus on long term trends and stay invested in stocks. When there is a long-term trend reversal, only then they exit a stock. Those who do not have enough time to invest must stay away from short term investing and trading. It is a matter of our choice. Technical analysis gives us both options.

In a given time frame how much a stock will rise, where it faces resistance, how much it could decline, where it can take support, all can be known.

As you follow traffic signals religiously, if you follow the technical signals religiously too, you can avoid accidents, i.e. big loss in stock market.

One can stay invested in a particular stock for a longer run and make good money, but if the same stock is bought and sold as per the short and medium term cycles, the returns can be increased over a longer period.

As said before, always remember that to enter the stock market without knowledge, is like entering the battlefield without plan and weapons.

Given the manipulation that exists in our markets, people without skills and knowledge tend to lose in the markets, and they blame their brokers and markets eventually.

But as I have mentioned earlier, the stock market must be a battlefield, and if we enter the markets without the bulletproof jacket of knowledge and skills, then we cannot hope for victory.

Knowledge serves the purpose of a torch in darkness. Everyone can make mistakes. But those who realize their

mistake and vindicate it, can hope to survive and win the battle of the stock market in the longer run. Whatever loss you make, you are responsible for it and not the market or anyone else.

WHY USE CHARTS?

Charts provide a graphical history of market performance. Investment without that graphical history is like going on a trip without a roadmap.

Charts can help you determine whether a stock is historically high or low. They help you determine whether stock is in an uptrend or downtrend.

The most important key to successful investing is the ability to spot market trends.

Another great strength of chart analysis is timing. Better you are at it, the better the performance. Fundamental Analysis Vs Technical Analysis:

Difference between fundamental analyst and technical analyst is that Fundamental analyst is concerned with why the price is what it is, and the Technical analyst is only concerned with What and never mind Why.

Technical analysis is the study of prices due to supply and demand and such factors.

Fundamental analysis is the study of factors that have an influence on price changes.

Technical analysis if used properly and in a disciplined manner helps in minimizing losses and maximizing profits. That is what our goal is.

THE BASICS OF TECHNICAL ANALYSIS:

Before getting deep into the subject of Technical Analysis, first let us understand the basics of technical analysis.

SUPPLY AND DEMAND:

The fundamental basis for technical analysis is that prices shift with supply and demand. If the demand exceeds the supply, the price will rise. If the supply exceeds the demand, the price will fall. Charts reflect this rise and fall. By studying this movement on a chart and using the technical studies, you can make predictions on which way the price is likely to go.

TECHNICAL INDICATORS

1. MOVING AVERAGES:

The moving averages are lagging indicators i.e. they are trend following indicators, and are used to identify changes in trends.

The moving average is a way of calculating the average price of an instrument over a given time span. As prices change over time, the average price reflects the change, but at a slower pace.

If the current price moves above the x day moving average, It indicates a buy signal. Same way if x days of average moves above its higher average, buy signal is achieved. The value of x depends on the time frame selected.

If the current price moves below the moving average, it indicates a sell signal. The value of x depends on the time frame selected.

One must always remember that a moving average is designed to inform you of an instrument's price trend, not to determine the top or bottom.

When to Use –

- They are best suited for trend identification and trend following purposes, not for prediction.
- Because moving averages follow the trend, they work best when a security is trending and are ineffective when a security moves in a trading range.
- Moving averages work well only in trending markets or securities. When prices are not trending, moving averages do not work well for investors.
- Key is to find a moving average and combination that will be consistently profitable.
- Most popular moving average is 39week, i.e. 200 Day Moving average.
- It is said that Bulls live above 200DMA and Bears live below 200DMA.
- Short-term traders may look for evidence of 2-3 weeks trend with a 21-day moving.
- Longer-term investors may look for evidence of 3-4 months trend with a 40-week moving average.
- For trading purpose lesser parameter can be used, say 10DMA or 20DMA
- The advantages of using moving averages need to be weighed against the disadvantages.
- Moving averages are trend following, or lagging indicators that will always be a step behind.
- This is not necessarily a bad thing though. After all, the trend is your friend and it is best to
- Moving averages will help ensure that a trader is in line with the current trend. Don't expect to get out at the top and in at the bottom using moving averages.

- As with most tools of technical analysis, moving averages should not be used on their own, but in conjunction with other tools that complement them.

Use of Moving Average Crossover –

When a lesser day moving average crosses above a greater value moving average, a Buy signal is generated.

1. Shorter periods like 3 & 7 days and 7 & 21 days can be used.
2. Longer periods like 14 & 42 days or more can be used.

Use shorter periods for early entry and then move to longer periods for confirmation of continuation of trend.

TYPES OF MOVING AVERAGES –

1. **Exponential Moving Average –**

- In order to reduce the lag in simple moving averages technicians use Exponential-moving averages and exponentially weighted moving averages.
- Exponential moving averages reduce the lag by applying more weight to recent prices relative to older prices. It reacts quicker to recent price changes than the simple moving averages.
- Which moving average you use will depend on your trading and investing style and preferences.

2. **Simple Moving Averages –**

- The simple moving average obviously has a lag, but the exponential moving average may be prone to quicker breaks.

- With this in mind, investors and traders should first display identified securities characteristics before attempting to analyse with some trending moving averages.

- If price movements are choppy and erratic over an extended period of time, then a moving average is probably not the best choice for analysis.

3. Three Moving Averages System –

The Three Moving Average system attempts to identify ranging markets. They tend to be unprofitable when traded with trend indicators.

Trading Signals from Three Moving Averages System-

- The system features three moving averages: fast, middle
- Entry points are determined by the middle Moving and slow. Average crossing the long MA and exit points by the fast MA crossing the middle MA.
- Go long when: middle Moving Average crosses to above slow MA from below; AND fast MA is above middle MA.
- Close long when fast Moving Average crosses to below middle MA from above.
- Go short when: middle Moving Average crosses to below slow MA from above; AND fast MA is below

middle MA.

- Close short when fast Moving Average crosses to above middle MA from below.

2. MACD (Moving average Convergence/Divergence)

Is a trend following momentum indicator, i.e. a Lagging indicator.

Formation –

- There are two lines in MACD. One fast line and one slow line.
- Both these lines oscillate above and below the "0" line, and give indication of trend.

Signals –

- The basic MACD trading rule is to sell when MACD falls below its signal line (in most cases the dotted line).
- Similarly, a Buy signal occurs when it rises above the signal line. Thus, it is popular to buy/sell when MACD goes above/below Zero levels.

- When a slow line crosses above and below the fast line, Buy and Sell signals are generated.
- When MACD is making a new high and price fails to reach new highs divergence occurs, similarly when Prices makes new highs and MACD fails to make new highs, divergence occurs.
- Similarly, when prices make new lows and MACD does not diverge, it gives a reversal signal.

MACD and Range-

Based on various chart studies, one can observe that MACD tends to take support and faces resistance around particular levels established in the past.

- These levels could be different for different stocks.
- For example, as in the chart below we can see that MACD moves in range between -50 and +50
- With change of phases, MACD can change the range in which it moves.
- Depending on the price range, MACD tends to oscillate between respective ranges.
- In stocks of price range 1000 to 5000, MACD can oscillate between 100 and 500 or more.
- When MACD is positive in Monthly and Weekly charts, the trend remains intact.

Divergence

- When Price of an instrument makes a high, and MACD fails to make a new high, one must understand

that bulls are in trouble and trend reversal is imminent. Such negative directions indicate trend change.

- Same way when price makes a new low, but MACD does not make a new low, it indicates that bulls are getting stronger, and a positive trend reversal is imminent.

3. RELATIVE STRENGTH INDEX (RSI):

RSI is a price-following oscillator created by J. Welles Wilder in 1978. As the name indicates it measures the relative strength of the stock.

Formation

It ranges between 0 and 100.

Its important levels are 30, 50 & 70

Popular Time Frame

14day RSI is popular in market.

The fewer days used to calculate RSI, the more volatile the indicator.

Use of RSI

RSI is primarily used for checking momentum, and overbought, oversold range.

Signals obtained from RSI

- RSI Tops above 70 and bottoms below 30.
- Security is considered oversold below 30 levels
- Security is considered overbought above 70 levels.
- When RSI remains above 50, the instrument shows an overall bullish trend.
- When RSI remains below 50, the instrument shows an overall bearish trend.
- RSI sometimes shows support and resistance levels more clearly than price charts.
- Divergence in RSI can be used as an impending reversal signal.
- For example, if security is making a new high, but RSI fails to surpass the previous high, a reversal signal is given.
- Prices usually correct and move in the direction of the RSI.

With the help of RSI one can get an overbought and oversold state of a market or a share in a particular range.

RSI between 30 and 70

Market or a share is seen in a range bound situation, stuck in a Range between important averages or fixed levels, and the RSI oscillates between 30 and 70.

When a share of a market is stuck between two major averages, it remains in a range for a while before giving a breakout on either side.

When to Buy?

- Buy when RSI after going below 30 levels, manages to give a positive breakout above 30 levels. As soon as it crosses 30 on the upside, one can initiate a buy
- One can also buy when RSI takes support at 30 and starts climbing up.

When to Sell?

- Sell, when RSI breaks below 70, after retracing from above 70 levels. Or one can sell after RSI touches 70. faces resistance there and starts declining.
- It is always better to wait for confirmations. In doing so, you may sell one day late, but chances of whipsaw

are reduced.

Note:

- In weekly charts when RSI is at 50 levels, and at the same time, the stock gets stuck between two major averages, it can remain range bound for a long time.
- As long as this range remains intact, one can buy and sell when RSI bottoms out near 30 and Tops out near 70.
- In daily charts when RSI stagnates near 50, we do not get any range to trade, so one must stay away from such stock or market.

RSI between 50 and 100

When the market enters the overall bull phase, mostly RSI is seen oscillating between 50 and 100 for many days consistently, in daily time frame. In weekly and monthly it keeps above 50 and 70 levels respectively.

When to Buy?

- On a daily time frame whenever RSI takes support on 50 levels, it gives opportunity to buy.
- When RSI goes above 70, momentum gains strength.
- As long as RSI keeps in this range, the Bullish phase remains intact.
- As long as weekly RSI is above 50, and Monthly RSI is above 70, in daily time frame RSI mostly oscillates between 50 and 70, with very few exceptions, when during a wild gyration, it may break below 50 for brief period and swiftly move above 50 to remain above it once again.

When to Sell?

- From above 70, when it breaks 70 on downwards move. one can sell for a short time.
- Selling from higher levels can be a bit risky, as during this phase, declines are very little and mostly for a short period. So one must focus on buying on declines more.

RSI between 30 and 50

When RSI breaks below 50 in the daily chart and remains below 50 and oscillates between 50 and 30, it must be understood that the bear phase has been established for some time, so one has to sell on every rise.

- When such a trend is established, it is seen that R5i B below 50 in weekly charts.
- If RSI goes below 50 in monthly charts, then a long-term bear phase is established.

When to Buy?

- When RSI takes support at 30 levels, or rises from below 30 crossing it upwards, one can go long for a short time.
- In buying there is some risk, as the downtrend below 30 RSI level can extend for longer period.

When to Sell?

- When RSI rises from 30 levels to 50, it faces resistance near it, so one must be ready to sell.
- Best use can be to sell every time RSI faces resistance near 50.

RSI below 30

In a ranging market when RSI goes below, it must be understood that soon you may get a buying opportunity.

When to Buy?

- In a ranging market when RSI goes below 30 or takes support at 30, it gives an opportunity to buy.
- But in trending markets, one must not make haste and try to buy the bottoms, as RSI can remain below 30 levels for a long period. In such scenarios, we do not get a chance to exit on rise, and we can get stuck in a position for a long time trying to pick a bottom.

- That is why unless the momentum of downtrend does not fizzle out, and RSI after rising above 30, does not take support on 30, one must not initiate a buy.
- When RSI remains below 30, bottoms can be established at a much lower level than our expectation.
- Never plunge thinking that the stock is available cheap.
- A stock once at 1000 rupees can look cheap, and in bear phase the same stock when available at 150, can look expensive. So never get blinded with such illusions.
- We must never buy and sell based on such illusions.

RSI between 70 and 100

In a ranging market when RSI crosses 70, it must be understood that soon you may get a selling opportunity.

When to Buy?

- In ranging markets when RSI crosses 70 or faces resistance near 70 one has to sell.
- But in trending markets, when RSI crosses above 70, it"s like the car going into the fifth gear. The momentum of the up move becomes stronger, and one side sharp up move can be witnessed.
- One must not sell prematurely in such circumstances.
- As long as RSI does not go below 70 and faces resistance of 70 again, one can keep long. *
- In weekly charts RSI is generally above 70. In monthly charts it is above 70 too.
- One can keep long as long as RSI keeps taking support on 70.

When to Sell?

- After staying above 70 levels for a long time, when RSI breaks below 70 levels, one must sell taking into consideration all other indicator signals.

RSI and Divergence

- When there is divergence between price and RSI, we get a signal that trend reversal is imminent.
- Positive and negative divergences are observed between price and RSI at different stages of bull and bear phases.
- One can stop such divergences, and take an early entry and make a good percentage gain in the short term.
- There is some risk involved in this, because after a divergence is formed, the trend reversal could take

some time, so one must have patience. Sometimes whipsaws can also occur.

Positive Divergence between Price and RSI

- Prices keep dragging downwards, while RSI takes support near bottom and forms higher bottom higher tops.
- Prices can either decline, or fail to rise, while RSI starts itching upwards, which forms a positive divergence.
- Once such formation is seen, one can say that trend reversal is imminent.
- Once such positive divergence is formed, it can take some time before the prices also start moving upwards, as per the nature of Divergences.
- So once such divergence is spotted, one can initiate buy.

Negative Divergence between Price and RSI

- Prices keep inching upwards or stabilize in upward range, while RSI fails to make new highs, and starts dragging downwards.
- This indicates the imminent trend reversal; prices also eventually follow RSI and start moving downwards.
- Once such negative divergence is observed, one can initiate a short or sell the position and exit the market.
- Once such negative divergence forms, it can take some time before prices actually start declining.
- Once such negative divergence is spotted, one must never make a mistake of buying. Stay away from such stocks.

RSI in Monthly & Weekly Time Frame

- When RSI is above 50 in Weekly charts, the overall up trend remains intact.
- Same way in Monthly charts when RSI is above 50, the up trend remains intact.
- On one side, the trend RSI remains above 70 in Monthly charts. In weekly charts, RSI oscillates between 50 and 100
- When RSI is above 70 in weekly and monthly charts when it crosses 70 upwards in daily charts, strong upward momentum is witnessed.
- In monthly and weekly if RSI is up, but in daily charts when RSI declines, and makes a bottom, it gives opportunity to buy.

- Same way when monthly and weekly RSI is down, but in daily charts RSI tops out, it gives an opportunity to sell.

4. Commodity Channel Index (CCI)

- What is the Commodity Channel Index (CCI)?

The Commodity Channel Index is a momentum oscillator that helps determine when the traded asset reaches an overbought or oversold state. Traders also use it to better assess the direction and the strength of a trend and spot reversals and extremes.

The CCI indicator was developed by technical analyst and mathematician Donald Lambert. He introduced it in Commodities magazine in 1980.

As its name suggests, the indicator's initial idea was to increase trading efficiency in the commodities market. It did that by mitigating timing challenges associated with entering cyclical and seasonal markets. At the time, this was a significant problem for technical traders. That's because they were struggling to adequately forecast seasonal market changes and take into account cyclical events resulting in price fluctuations.

Thanks to its efficiency, the CCI indicator became a favourite tool also of equity and Forex traders over time. Most use the indicator to determine their entry and exit points, when to jump into a trade or when to avoid one, and whether they should add to an existing position, etc.

Commodity Channel Index Calculation and Formula:-

The formula for the CCI indicator is:

$$CCI = \frac{Typical\ Price - MA}{0.015\ x\ Mean\ Deviation}$$

- How to Interpret the Commodity Channel Index?

The Commodity Channel Index represents the difference between the current and the average historical price change for a particular security.

High positive CCI values indicate that the current prices are above their average. This is a sign of the trend's strength.

Low negative indicator values suggest that the prices are below their average. That's a sign of weakness.

Traders can choose to use the CCI either as a leading or as a coincident indicator.

When used as a leading indicator, the CCI helps recognize overbought and oversold market conditions that might lead to a mean reversion, as well as bullish and bearish divergences, foreshadowing momentum shifts. On the other hand, when used as a coincidence, the CCI signals the emergence of uptrends (surges above +100) or downtrends (dips below -100).

- Spotting Overbought or Oversold Price Levels

The way traders use the CCI to spot overbought and oversold price levels is based on simple logic. When the indicator is above +100, the price is above its average. When the CCI is below -100, its price is below the historical average.

Alternatively, zones over the +100 and below the -100 marks indicate overbought and oversold price levels. In the former case, when the price moves above +100 and gets back below it, traders take short positions. In contrast, in the latter situation, when the indicator dips below -100 and then gets back above it, traders go long in anticipation of the bullish trend.

Make sure to avoid trading on the first moment when the CCI moves above +100 or dips below -100. The reason is that during strong trends, the overbought and oversold conditions might persist for an extended period that could last for up to several weeks.

- Advantages and Disadvantages of Using the CCI

As with every technical trading indicator out there, the CCI also has its pros and cons. Let's take a look at the advantages and disadvantages of the indicator. This will help you understand what you should look for when using it and improve your trading strategy.

Advantages :-

Works in a variety of markets

When you hear the "Commodity Channel Index" term for the first time, it is natural to think that it is designed to work only in the commodity markets. However, aside from futures, you can also apply it to equities, forex, and a variety of other asset classes. The vital thing to note is that it should be adjusted depending on the traded instrument's historical characteristics.

Easy-to-comprehend even for beginners

The way the Commodity Channel Index's design makes it easy to use and interpret even by beginners. All you have to do to use the CCI is to adjust the number of periods you want to analyze. Once you do that, due to the advanced charting features of trading platforms nowadays, you can easily spot when the indicator is out-of-bounds, estimate the signal's strength, and make a trading decision.

Powerful indicator

The CCI indicator can inform the trader about various market developments. The list includes overbought and oversold price levels, divergences, and emerging trends. It also provides insights into the price momentum and its strength, making it one of the most complete technical trading indicators.

Disadvantages :-

Overbought and oversold levels are subjective

Due to being an unbound indicator, the CCI can't guarantee that when it drops below -100 or climbs above +100, it is a fair indication of an oversold or an overbought market. These levels are different for each instrument. This means you should get familiar with the CCI's historical movement before looking for overbought and oversold signals. Sometimes -200 and +200 might be a better choice. Meanwhile, for other instruments, you might have to switch to -250 and +300, for example.

Shouldn't be used as a standalone indicator

Although this can be said for practically every technical indicator, we can't miss highlighting its importance here, as well. Often, beginners learn one or two indicators and try trading solely on them. Such strategies aren't viable nowadays due to the markets' complexity. The case is no different with the CCI, so make sure to complement it with other indicators.

Doesn't take news into account

The indicators take only current price information and compare it to the average mean price for the preferred period. This means fundamental drivers behind these prices are often left out. This may sometimes distort the signals the indicator generates. That is why it is essential to avoid taking the CCI signals for granted. Always look beyond the numbers to seek context and get a fairer representation of the situation.

INTRODUCTION TO CHART PATTERNS

Chart patterns presents various factors like buying, selling and the tug war between bulls and bears, and importantly who is winning the battle into pictorial form that investors can take position accordingly.

Chart pattern analysis can be used to make short-term long-term forecasts. The data can be intraday, daily, weekly or monthly and the patterns can be as short as one day or as long as many years.

The science of chart reading, however, is not as easy as the mere memorizing of certain patterns and pictures and recalling what they generally forecast. Any general stock chart is a combination of countless different patterns and it accurate analysis depends upon constant study, long experience and knowledge of all the fine points, both technical and fundamental, and, above all, the ability to weigh opposing indications against each other, to appraise the entire picture in the light of its most minute and composite details as well as in the recognition of any certain and memorized formula.

Two basic tenets of technical analysis are that prices trend and that history repeats itself.

An uptrend indicates that the forces of demand (bulls) are in control and a downtrend indicates that the forces of supply (bears) are in control. However, prices do not trend forever and as the balance of power shifts, a chart pattern begins to emerge. Certain patterns, such as a parallel channel, denote a strong trend. However, the vast majority of chart patterns fall in two groups, Reversal and Continuation Patterns.

REVERSAL PATTERN

Reversal patterns indicate a change of trend and can be broken down into top and bottom formations. Some of the important reversal patterns are:

- Head and Shoulder
- Inverted Head and Shoulder Pattern
- Rising Wedge
- Falling Wedge
- Double Bottom
- Double Top
- Rounding Bottom

1. **HEAD AND SHOULDER –**

The head and shoulders pattern is generally known as a reversal pattern and it is most often seen in up trends. In an established trend eventually, the market begins to slow down in fatigue. Sellers become dominant at the highs, which results in some decline, which forms the "left shoulder". Where it takes support forms the beginning of the neckline.

Buyers try to shrug off the sellers, and resume buying, which takes the stock or market to new highs, which form the "head." However, bears once again become dominant and the new highs are not quickly turned back and on the downside the continuing neckline already established is tested again.

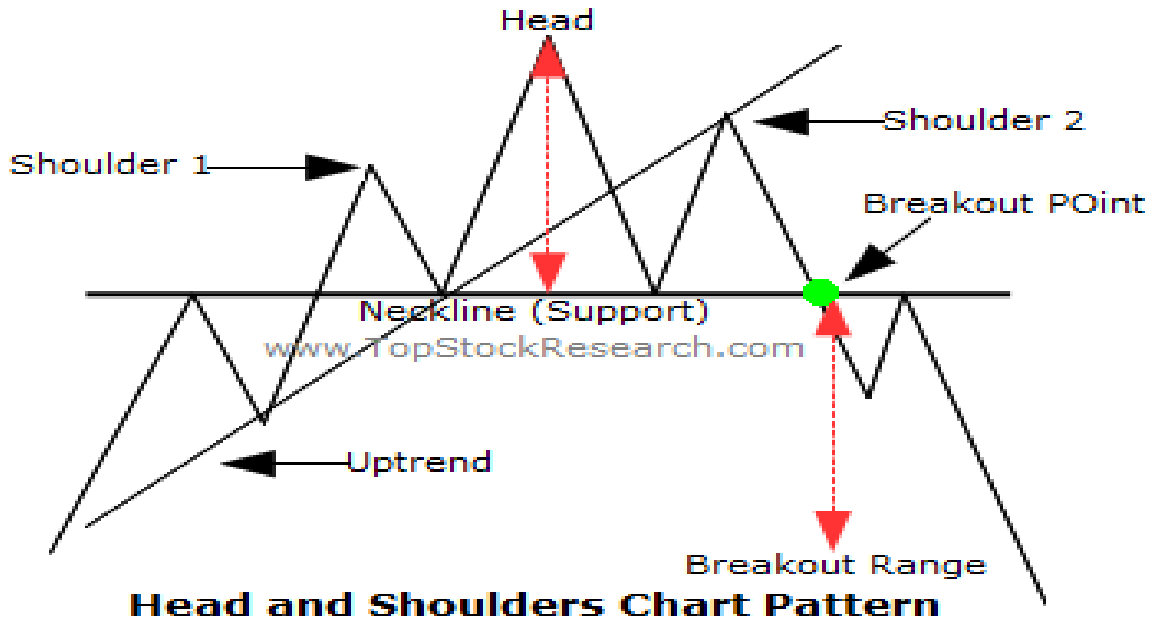
Last leg of buying in this pattern re-emerges and the market rallies once more, but this time it fails to move above the previous high. This last top is considered the right shoulder.

In absence of fresh buying, the market tests the neckline again. When the prices falls below neckline with high volume and the downtrend extends

In this pattern, Volume has a greater importance. Volume generally follows the price higher on the left shoulder. However, the head is formed on diminished volume indicating the buyers aren't as aggressive as they once were. And on the last rallying attempt-the left shoulder-volume is even lighter than on the head, signalling that the buyers are exhausted.

New selling comes in and previous buyers get out. The pattern is complete when the market breaks the neckline.

Like mentioned above volume should increase on the breakout.



Head and Shoulders Chart Pattern

2. INVERTED HEAD AND SHOULDER –

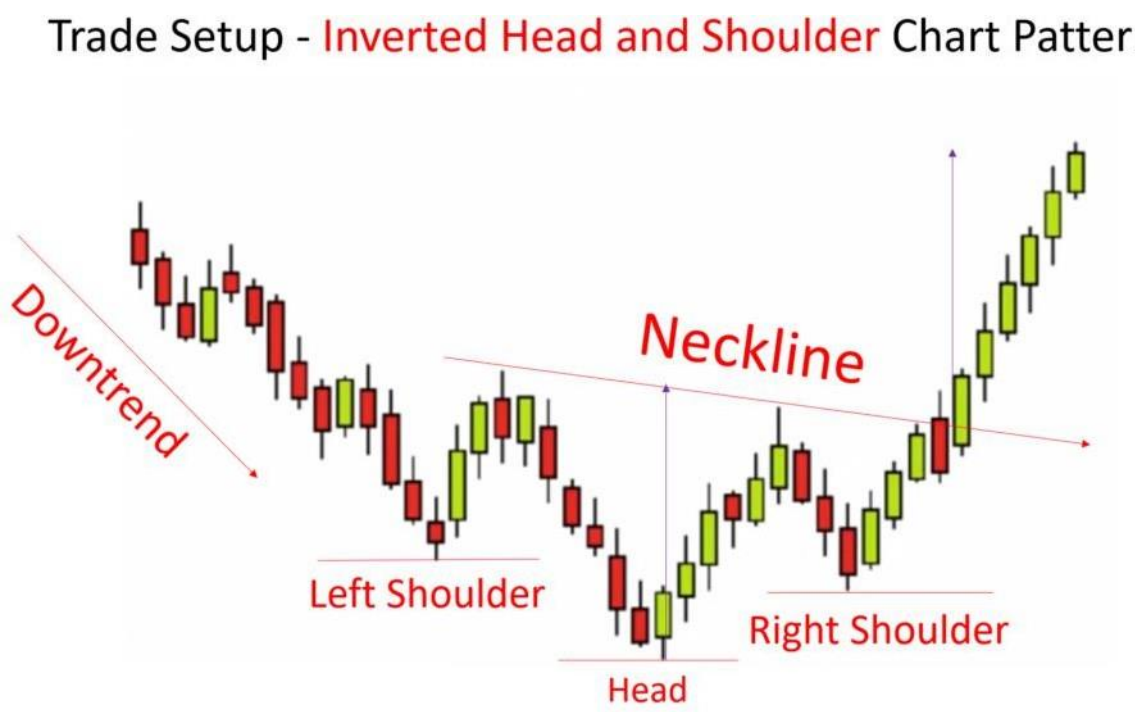
The head and shoulders pattern can sometimes be inverted. The inverted head and shoulder pattern is typically seen in downtrends.

In an established down trend, the bears start showing signs of fatigue.

Bulls jump in and start buying, which results into a small pullback, which results into "Left Shoulder"

But bears re-emerge, and the prices make new lows, but with lesser volumes than witnessed when the "left inverted shoulder" was formed, which forms the "head".

With a fresh but limited supply, prices fall a bit, but this time they take support on or near the neckline, forming the right inverted shoulder and prices start rising again, with higher volumes as the prices break above the neckline and the uptrend extends, after completing the pattern.



3. **RISING WEDGE –**

This pattern is an indicator of a bearish phase imminent.

The rising wedge can be one of the most difficult chart patterns to accurately recognize and trade.

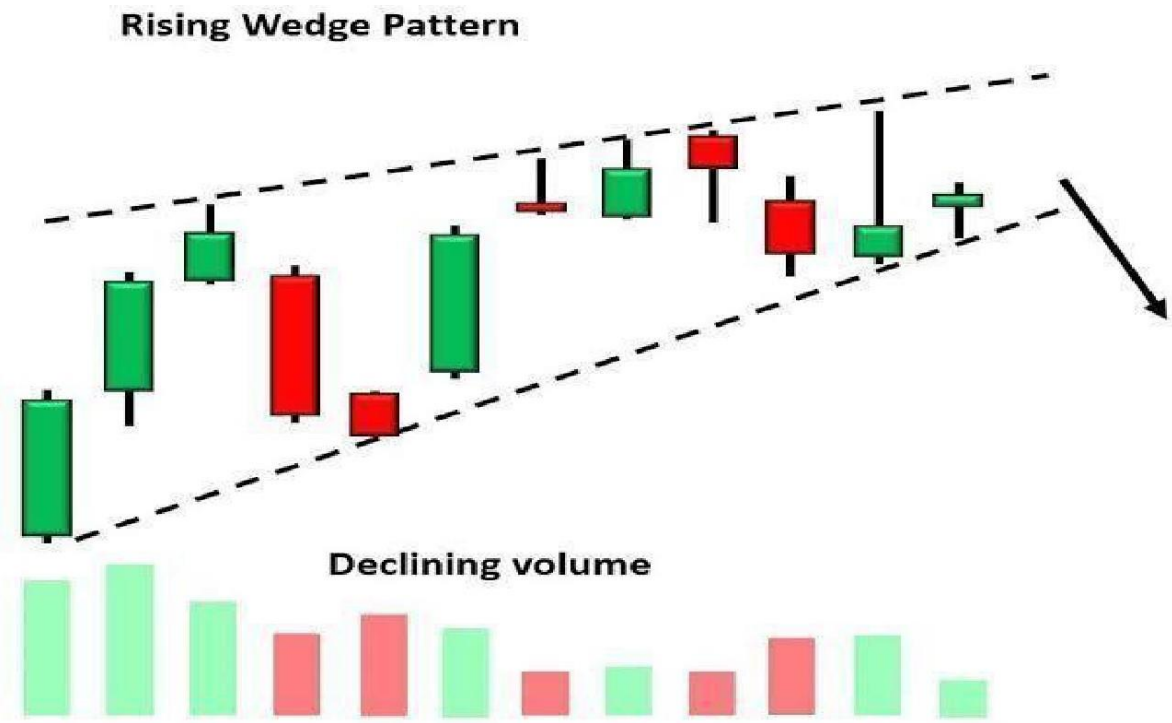
The rising wedge is a bearish pattern that begins wide at the bottom and contracts as prices move higher and the trading range narrows.

While it is a consolidation formation, the loss of upside momentum on each successive high gives the pattern its bearish bias.

However, the series of higher highs and higher lows keeps the trend inherently bullish, which can make the interpretation a bit confusing.

What can simplify matters is the fact that when this pattern is in the finishing stage, most of the indicators are overbought, and can also show a negative divergence.

When the final support breaks, the downtrend begins.



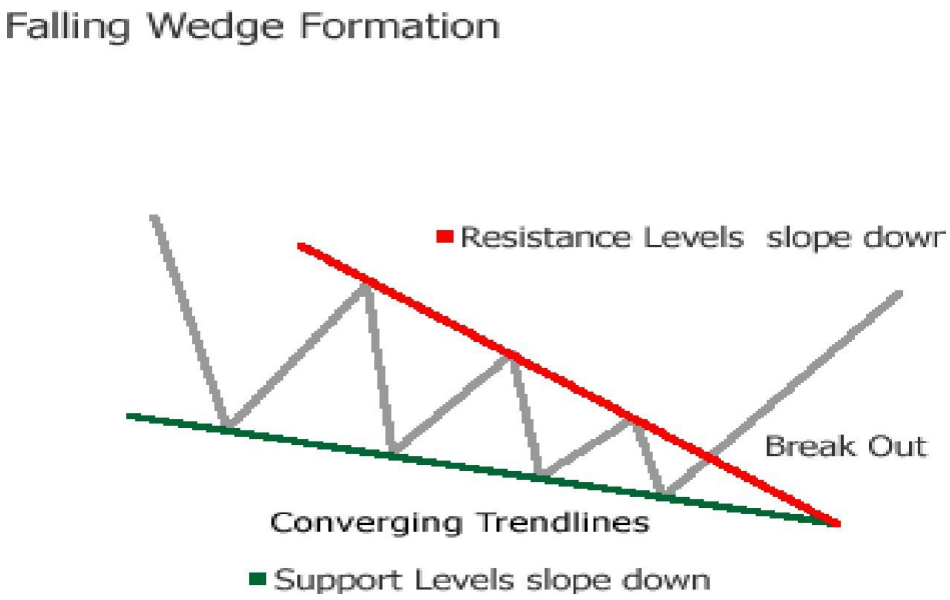
4. FALLING WEDGE -

The falling wedge is a bullish pattern that begins wide at the top and contracts as prices move lower.

In falling wedges though lower top and lower bottoms are made in succession, the decrease in downside momentum, alert the traders that a trend reversal is imminent.

Even though selling pressure may be diminishing, a positive breakout is only possible when buying surpasses the supply, and the resistance formed by the upper trend line of the wedge is broken upwards.

Always wait for the confirmation, before initiating position.



One should also check the indicators, before initiating any buy position.

5. DOUBLE BOTTOM -

Double bottom is an intermediate to long-term reversal pattern that can take a few days to a few weeks or a few months to form.

Even though formation in a few weeks is possible, it is preferable to have at least 4 to 5 weeks minimum between lows.

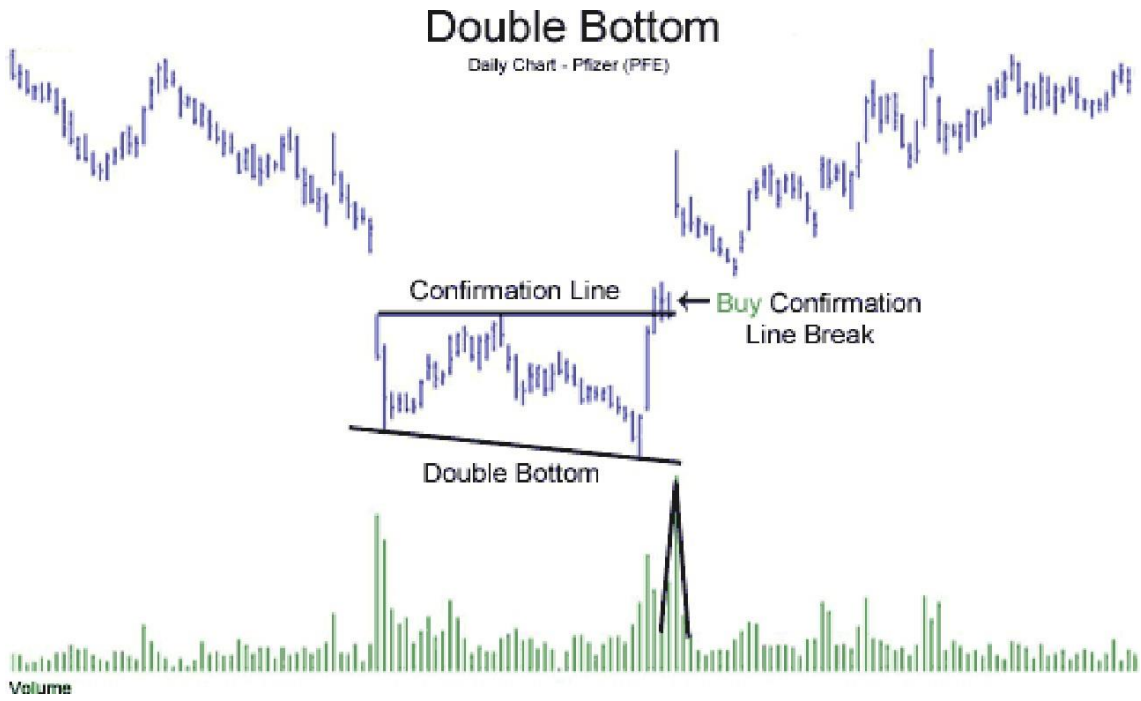
Bottoms usually take longer than tops to form and patience can often be a virtue.

A bottom is established, and then the pullback resumes, which can continue till it faces a major resistance.

After a few weeks or months, the prices fall back to the previously established support, and form a double bottom, to rise again from these levels.

One must combine other indicators with this to get confirmations. For example, when a double bottom is formed, mostly an indicator like RSI or MACD could be showing a positive divergence, which makes the signals stronger, that the imminent pullback will come with great conviction from the bulls.

A "W" like formation is completed, and the stock can even surpass the previously established resistances depending on the dynamics of the market at that time.



6. DOUBLE TOP -

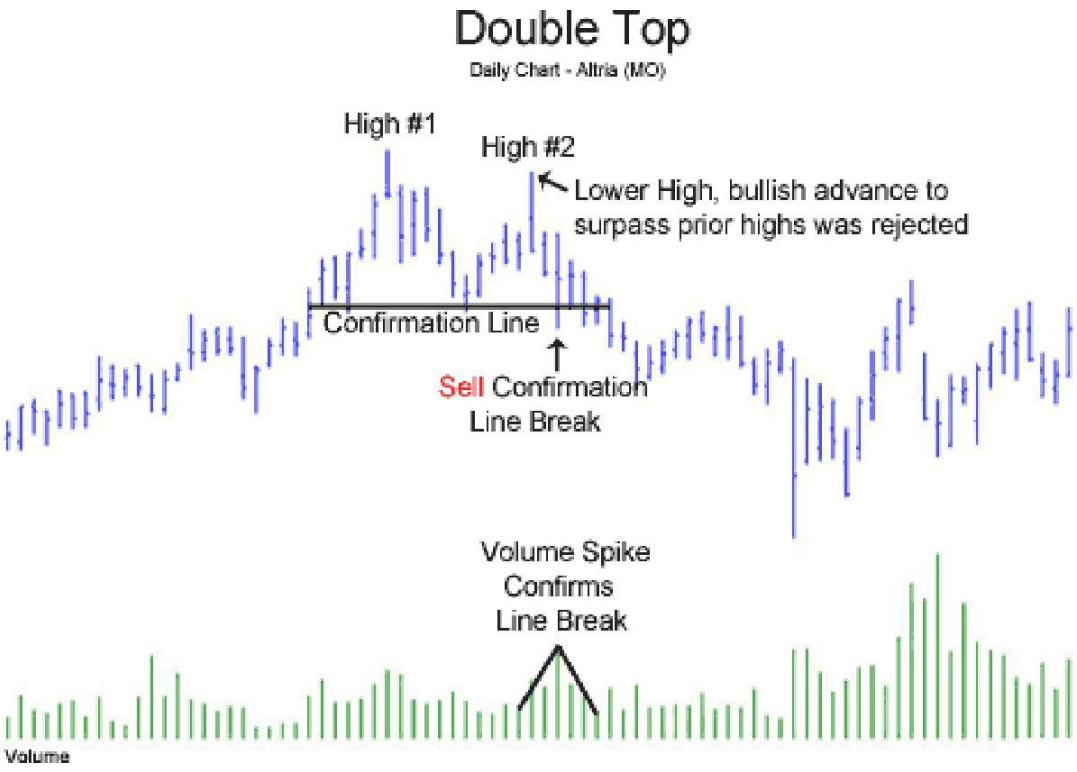
A double top occurs when a stock attempts to break out above a recent peak but fails. (Remember, that first peak resistance!)

If a stock doesn't immediately get through an old peak, it doesn't mean a double top is forming.

In order to get confirmation, the correction low (vallev) between the two peaks must be broken to the downside

Time Frame between two Gaps:

- For short term study a gap of 3 to 4 weeks between two tops can be considered.
- For Medium term study a gap of 3 to 6 months can be considered.
- For long term study a gap of 1 to 2 years or more can be considered.
- One can be a bit flexible in these time frames depending on respective chart behaviours.



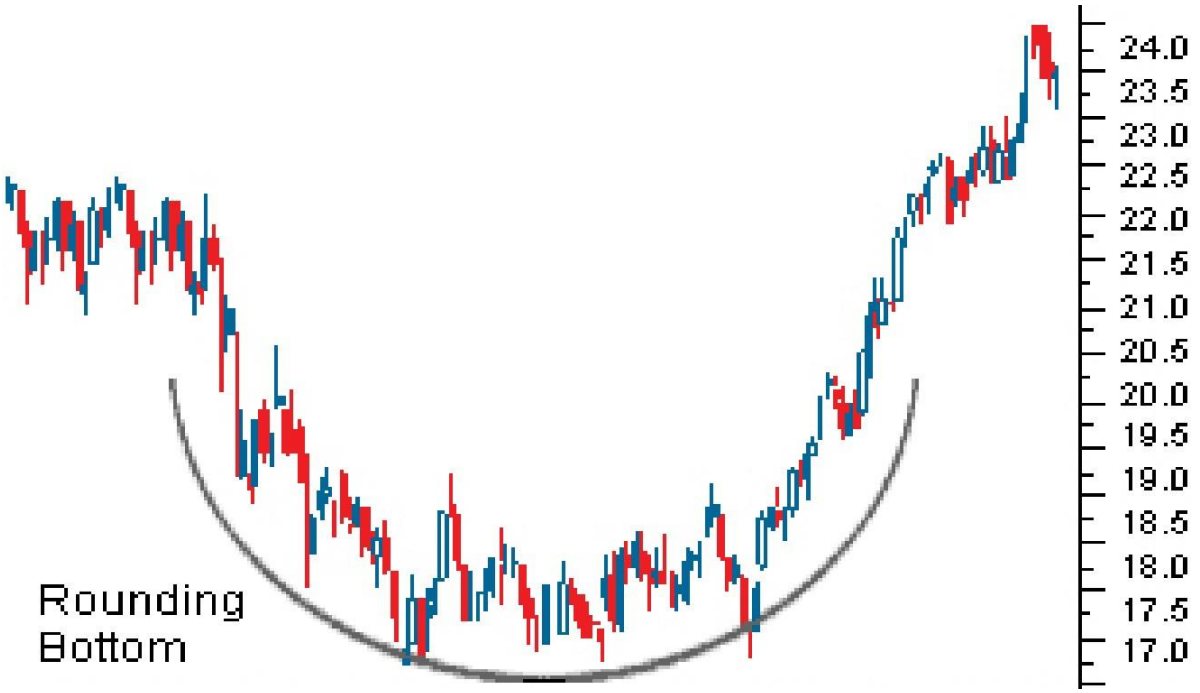
7. ROUNDING BOTTOM -

The rounding bottom is a long-term reversal pattern. This pattern demands great patience from investors, as it takes a lot of time to complete its formation.

Its formation in weekly and Monthly charts can give a clear signal. It also forms in daily charts, but daily charts can show more noise due to wild gyrations on some individual days. So for clarity, always try to find this pattern on weekly and monthly charts.

In simple words it represents a long consolidation period that turns from a bearish bias to a bullish, and extends its bull run to complete a saucer like shape of it.

Based on this pattern, one can predict future price targets, which is near the end of the saucer curve.



CONTINUATION PATTERNS:

Continuation Patterns indicate a pause in the trend and indicate that the previous direction will resume after a period of time.

Some of the important continuation patterns are:

- Triangles
- Symmetrical Triangle
- Ascending Triangle
- Descending Triangle
- Flag Continuation Pattern
- Rectangle Pattern
- Price Channel
- Cup and Handle

1. **SYMMETRICAL TRIANGLE -**

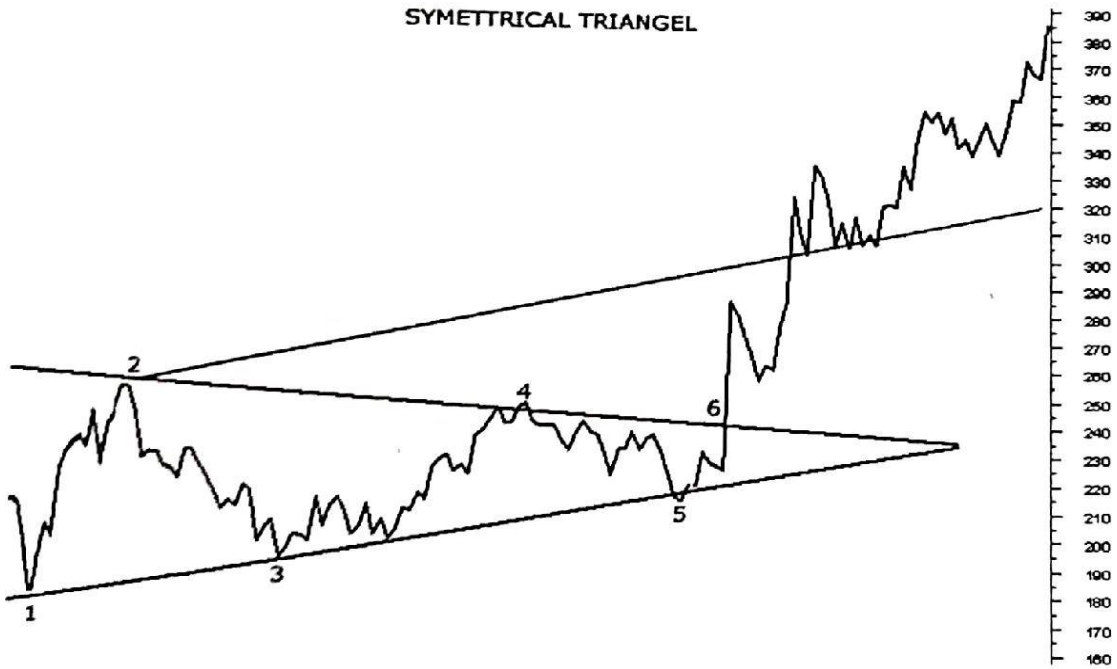
This pattern can form in either an uptrend, or a downtrend. This pattern Also referred to as a coil, it usually forms during a trend as a continuation pattern.

It is a neutral formation that relies on the impending breakout to dictate the direction of the next move.

During an uptrend or a downtrend, there comes a phase where the stock goes into a consolidation, with it forming successive higher bottoms and lower tops, with volume fizzling out and the range becoming narrower.

At one stage the volume dries up and the range is almost absent, when suddenly either bulls or bears take charge, and a breakout is observed with great spurt in volumes.

- As shown in the figure, from point 2 the chart shows symmetrical triangle formation.
- A trend line is drawn touching point 1, point 3 and point 5.
- A parallel trend line is drawn from point 2, which is parallel to the trend line already drawn.
- These lines' length is the same as the length of the trend line that is drawn from point 1 through point 5, which completes the triangle.



- The target can be assumed based on the point near which the parallel line ends, which is extended from point 2.

2. **ASCENDING TRIANGLES –**

The ascending triangle is a bullish formation that usually forms during an uptrend as a continuation pattern.

Whether they form at top or in bottom, ascending triangles are bullish patterns that indicate accumulation.

An ascending triangle has a definitive bullish bias before the actual breakout. At some stage during an uptrend, the stock enters into an upward consolidation

The prices face resistance near a certain level and each time the decline forming a bottom, which is higher than the previous one.

But every time it reaches the resistance it is unable to cross this continues till the pattern nears it completion.

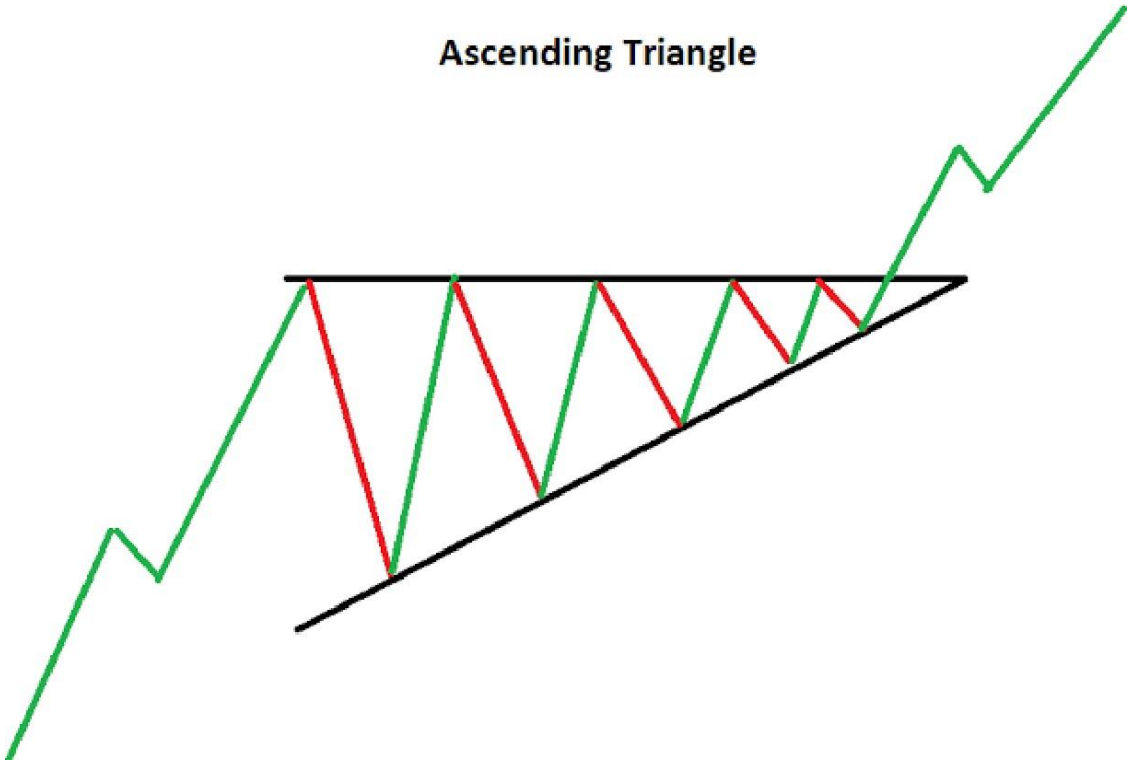
Till then higher bottoms are formed, with diminishing volumes, and resistances are faced, without a big sell off either.

At one stage, the bulls get the upper hand, and a positive breakout is witnessed with huge spurt in volumes.

Here also parallel trend line can be drawn to get a price target based on the pattern as explained in the previous pattern.

We can see on the above chart that the prices formed a symmetrical triangle, and eventually it managed to break out on the upside.

The parallel trend line extended to give us a price prediction of 300 plus.



3. DESCENDING TRIANGLES –

The descending triangle is a bearish formation that usually forms during a downtrend as a continuation pattern.

Regardless of where they form, descending triangles are bearish patterns that indicate distribution.

Successive lower highs are formed with prices taking support at a certain level on downside every time.

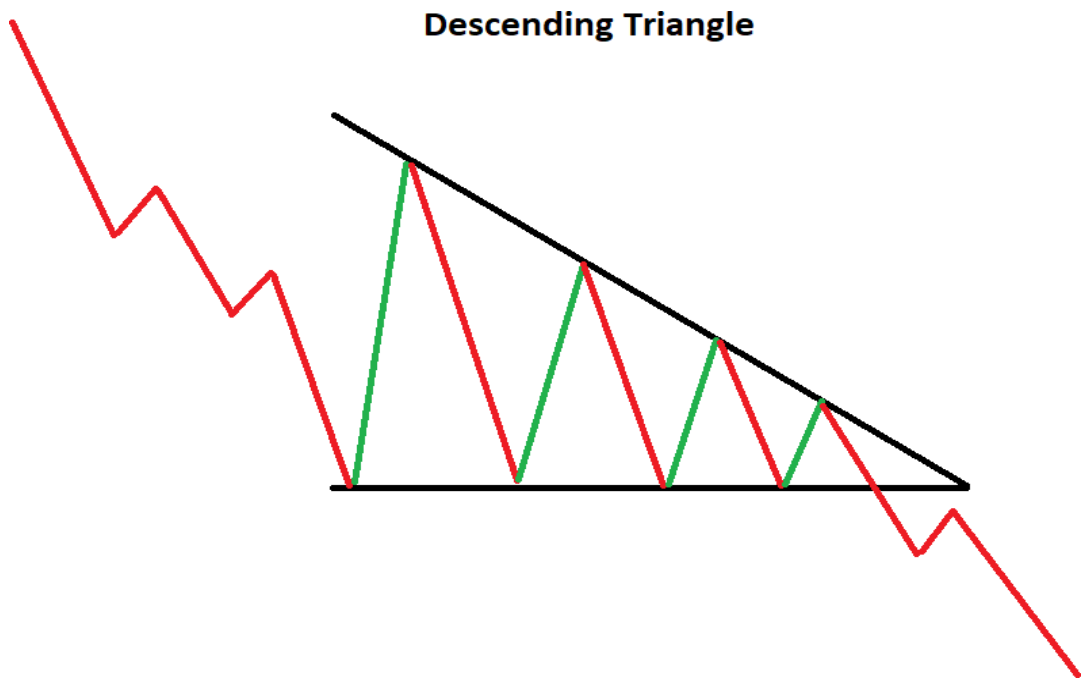
It indicates increased selling pressure and gives us an opportunity to sell at every rise.

Short-term traders can use this pattern for trading, but long-term investors must stay away from a stock which is witnessing formation of a descending triangle.

As the pattern approaches its completion, the volatility diminishes, and so does the volume.

Once the breakout is achieved on the downside, it happens with huge volumes.

Price target can be achieved based on drawing parallel trend lines as mentioned previously.



4. FLAG CONTINUATION PATTERN –

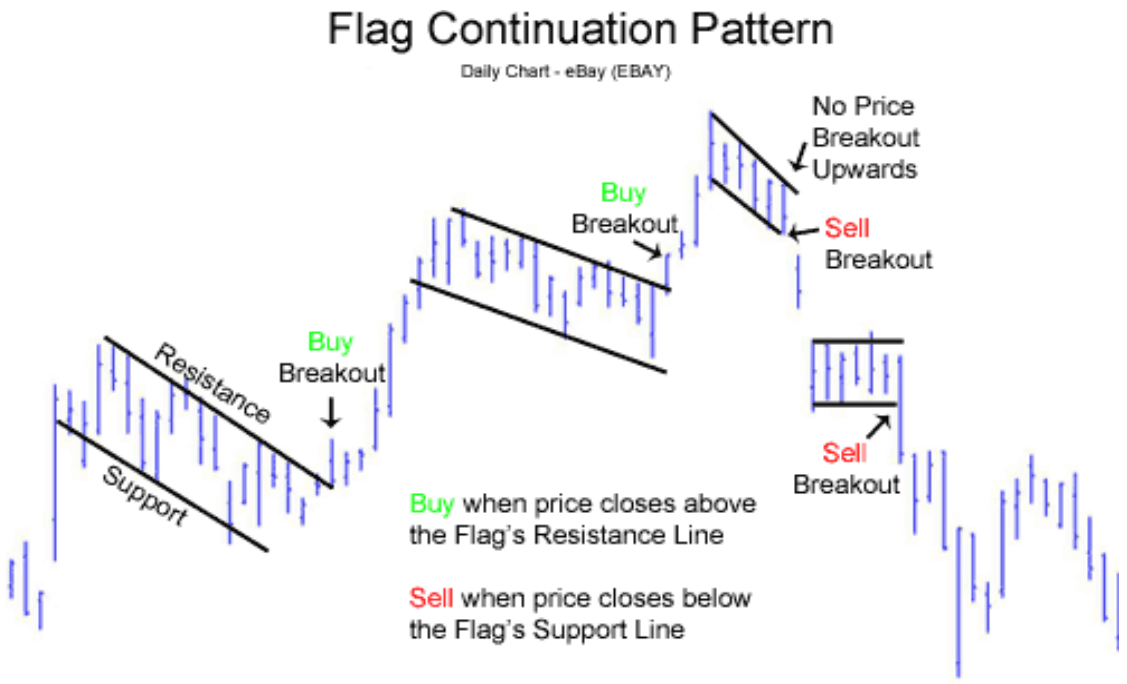
Flags are short-term continuation patterns that mark a small consolidation before the previous move resumes.

It is important that flags and pennants are preceded by a sharp advance or decline. Without a sharp move, the reliability of the formation becomes questionable and a whipsaw could occur.

A flag is similar to a rectangle pattern with the difference that it slopes a little, which is not the case in rectangles.

If the already established trend were up, then the flag would slope down. If the established trend were down, then the flag would slope up.

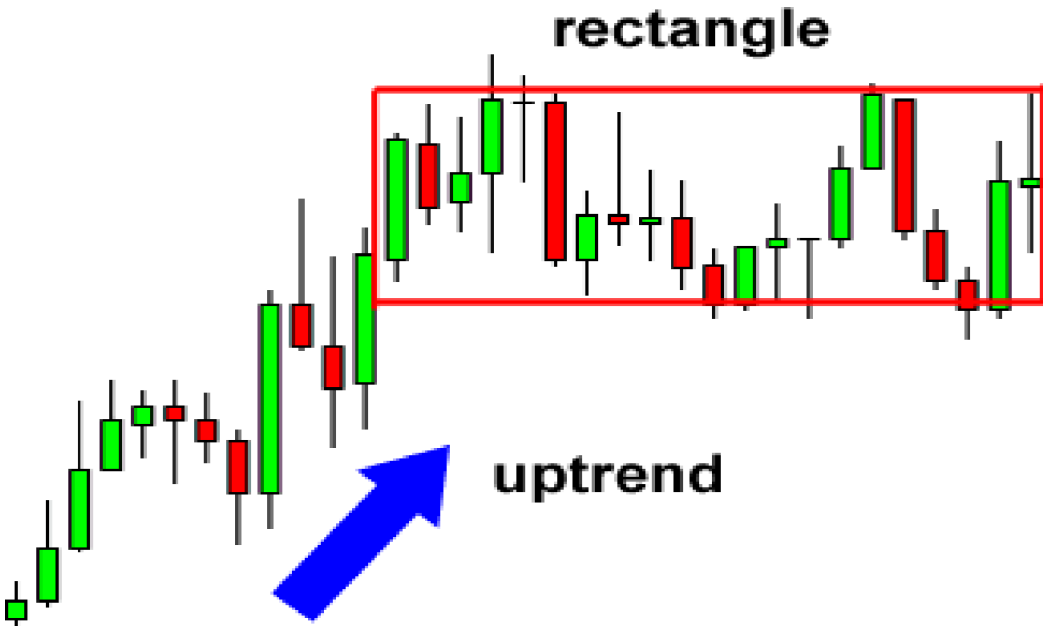
Once the breakout is achieved with higher volumes, the trend extends itself.



5. RECTANGLE PATTERN –

A rectangle is a continuation pattern that forms as a trading range during a pause in the trend. Rectangles are sometimes referred to as trading ranges or consolidation zones.

Rectangles represent a trading range in which bulls and bears fight for the eventual win.



As the price comes near support, buyers step in and push the price higher. As the price nears resistance, bears take over and force the price lower.

Alert traders take advantage of these range bound movements by buying near support and selling near resistance.

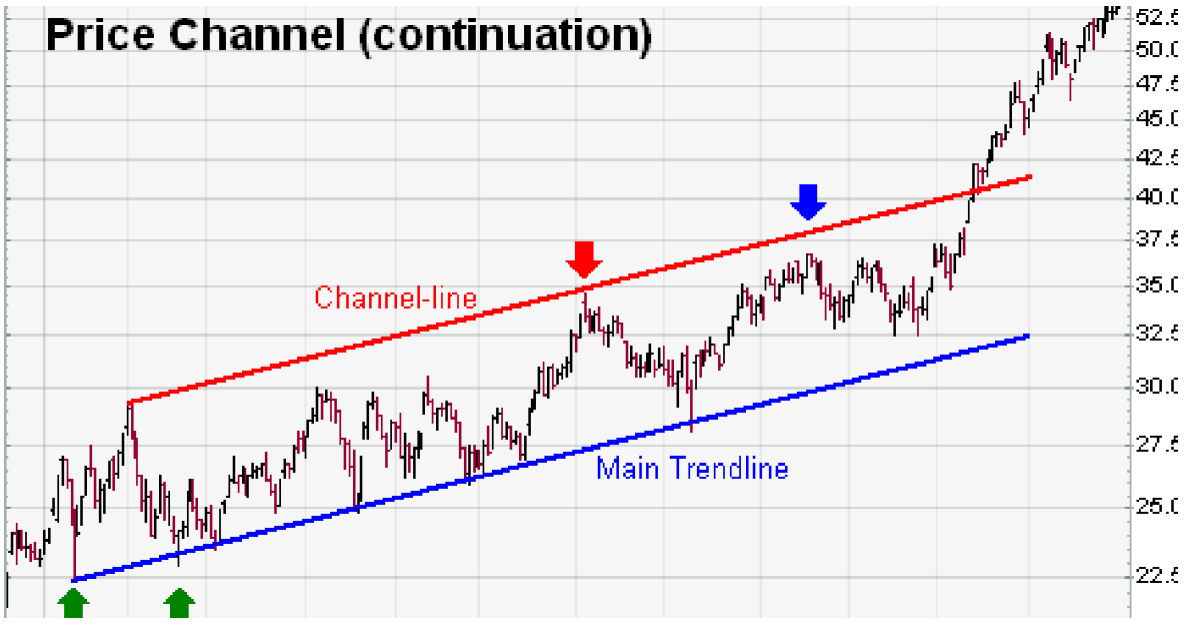
Eventually one group (bulls or bears) will exhaust itself and a winner will emerge when there is a breakout.

6. PRICE CHANNEL –

A price channel is a continuation pattern that slopes up or down and remains range bound by its upper and lower trend line.

Traders take advantage of this trend line bound movement, buying near the support of lower trend line and selling near the resistance of the upper trend line.

Long-term investors just keep their positions long or short until the respective trend line is broken against their position.



7. CUP AND HANDLE –

The Cup with Handle is a bullish continuation pattern that marks a consolidation period followed by a breakout.

In this pattern after an up move, it is followed by a selloff. This selloff forms the initial part of the pattern.

After selling the trend remains uncertain for some time and then an up move is witnessed.

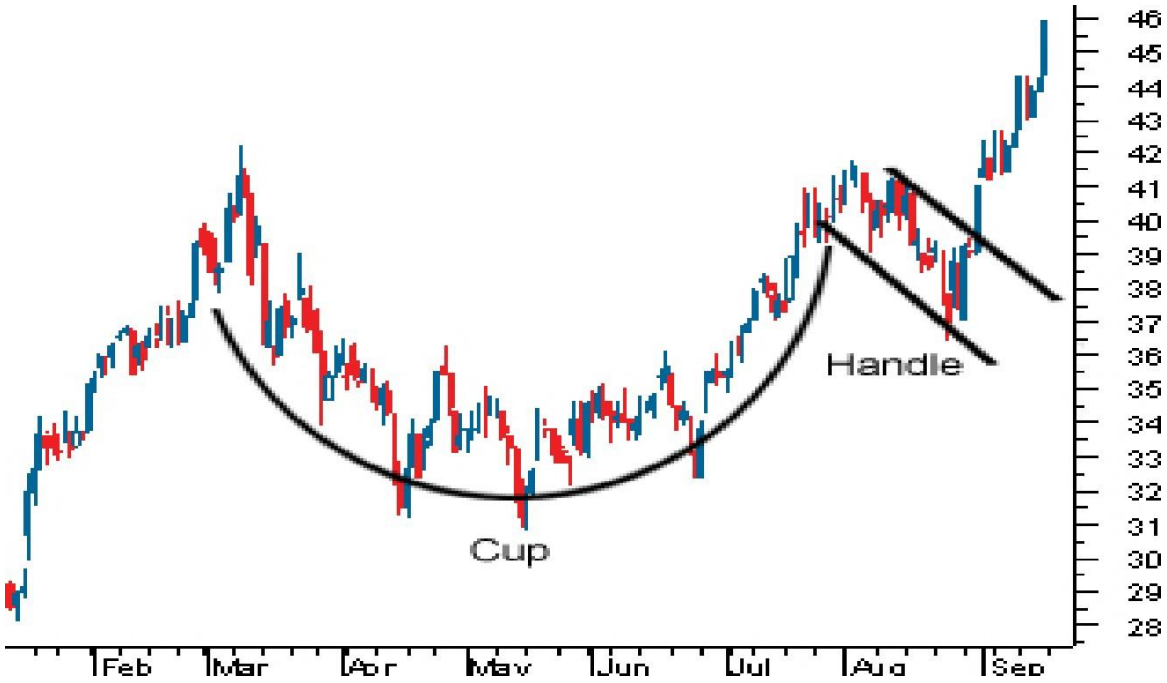
Then again after reaching the previous recorded high in this pattern, the prices correct again to form a handle-like shape.

A subsequent breakout from the handles trading range signals a continuation of the prior advance.

The cup pattern is like a semi-circle. This pattern is a consolidation period among a major trend already established.

If the volumes increase when breakout is witnessed, the trend that follows can be considered stronger.

As with most chart patterns, it is more important to capture the essence of the pattern than the particulars.



CHAPTER-IV DATA COLLECTION AND ANALYSIS

1. Reliance Industries Limited

Founded – **1958**

Chairman – **Mukesh Dhirubhai Ambani**

Sector – **Petroleum**

Market Capitalisation – **Rs. 16,71,033.44 Crores**

- **EMA:** EMA 5 crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is above 100 so, **BUY**
- **MACD:** blue line crossed red line from below in mid of march so, **BUY**
- **RSI:** RSI is near 70 so, **SELL**

2. Tata Consultancy Services

Founded – **1968**

CEO – **K Krithivasan**

Sector – **Information Technology Services**

Market Capitalisation – **Rs. 12,03,644.95 Crores**

- **EMA:** EMA 5 just crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is near 100 so, **BUY**
- **MACD:** blue line just crossed red line from below in end of April so, **BUY**
- **RSI:** RSI is near 50 so, **BUY**

3. HDFC Bank

Founded – **1994**

CEO – **Deepak Parekh**

Sector – **Banking Services**

Market Capitalisation – **Rs. 9,00,347.74 Crores**

- **EMA:** EMA 5 is above EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is near 100 so, **BUY**
- **MACD:** blue line just crossed red line from above in end of April so, **SELL**
- **RSI:** RSI is near 50 so, **SELL**

4. Hindustan Unilever Limited

Founded – **1933**

CEO – **Sanjiv Mehta**

Sector – **FMCG**

Market Capitalisation – **Rs. 6,26,765.22 Crores**

- **EMA:** EMA 5 is Below EMA 13 and EMA 26 so, **SELL**
- **CCI:** CCI is near -200 so, **SELL**
- **MACD:** blue line just crossed red line from above in April so, **SELL**
- **RSI:** RSI is near 40 so, **BUY**

5. Bharti Airtel Limited

Founded – **1995**

CEO – **Sunil Mittal**

Sector – **Telecommunication**

Market Capitalisation – **Rs. 4,91,613.16 Crores**

- **EMA:** EMA 5 crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is above 200 so, strong **BUY**
- **MACD:** blue line just crossed red line from below in starting of April so, **BUY**
- **RSI:** RSI is near 70 so, **SELL**

6. Sun Pharmaceutical Industries Limited

Founded – **1983**

CEO – **Dilip Shanghvi**

Sector – **Pharmaceutical**

Market Capitalisation – **Rs. 2,34,019.14 Crores**

- **EMA:** EMA 5 crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is increasing near 0 so, **NEUTRAL**
- **MACD:** blue line just crossed red line from above in mid of April so, **SELL**
- **RSI:** RSI is increasing near 50 so, **BUY**

7. TATA Motors Limited

Founded – **1945**

Chairman – **Natarajan Chandrasekaran**

Sector – **Automobile**

Market Capitalisation – **Rs. 1,88,627.66 Crores**

- **EMA:** EMA 5 crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is increasing near 100 so, **BUY**
- **MACD:** blue line just crossed red line from below in start of April so, **BUY**
- **RSI:** RSI is above 70 so, **SELL**

8. JSW Steel Limited

Founded – **1982**

Chairman – **Sajjan Jindal**

Sector – **Steel**

Market Capitalisation – **Rs. 1,67,415.19 Crores**

- **EMA:** EMA 5 crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is increasing near 100 so, **BUY**
- **MACD:** blue line just crossed red line from above in start of April so, **SELL**
- **RSI:** RSI is near 70 so, **SELL**

9. Bajaj Finserv Limited

Founded – **2007**

Chairman – **Sanjiv Bajaj**

Sector – **Insurance**

Market Capitalisation – **Rs. 2,30,829.33 Crores**

- **EMA:** EMA 5 crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is increasing near 100 so, **BUY**
- **MACD:** blue line just crossed red line from below in end of April so, **BUY**
- **RSI:** RSI is near 70 so, **SELL**

10. Ultratech Cement Limited

Founded – **1983**

Chairman – **Kumar Mangalam Birla**

Sector – **Cement**

Market Capitalisation – **Rs. 2,26,866.67 Crores**

- **EMA:** EMA 5 crossed EMA 13 and EMA 26 so, **BUY**
- **CCI:** CCI is near 0 so, **NEUTRAL**
- **MACD:** blue line just crossed red line from above in mid of April so, **SELL**
- **RSI:** RSI is near 50 so, **NEUTRAL**

CHAPTER-V FINDINGS

Sr No.	COMPANIES	EMA	CCI	MACD	RSI
1	Reliance Industries Limited	BUY	BUY	BUY	SELL
2	TCS	BUY	BUY	BUY	BUY
3	HDFC Bank	BUY	BUY	SELL	SELL
4	Hindustan Unilever Limited	SELL	SELL	SELL	BUY
5	Bharti Airtel Limited	BUY	BUY	BUY	SELL
6	Sun Pharmaceuticals Limited	BUY	NEUTRAL	SELL	BUY
7	TATA Motors Limited	BUY	BUY	BUY	SELL
8	JSW Steel Limited	BUY	BUY	SELL	SELL
9	Bajaj Finserv Limited	BUY	BUY	BUY	SELL
10	Ultratech Cement Limited	BUY	NEUTRAL	SELL	NEUTRAL

CHAPTER-VI CONCLUSIONS

Sr No.	COMPANIES	SIGNAL
1	Reliance Industries Limited	BUY
2	TCS	BUY
3	HDFC Bank	HOLD
4	Hindustan Unilever Limited	SELL
5	Bharti Airtel Limited	BUY
6	Sun Pharmaceuticals Limited	BUY
7	TATA Motors Limited	BUY
8	JSW Steel Limited	HOLD
9	Bajaj Finserv Limited	BUY
10	Ultratech Cement Limited	HOLD

- Technical analysis very useful for every investor for making decision at time of investing. Above all the companies also use the technical graphs. For knowing the position of investment.
- After analysing the companies, the subsequent finale was reached. By chart RSI is increases, this is directly showing increase in the worth of the RSI, which shows that there is a growth in the share price. This tells the shareholder that it is a physically powerful selling stage of best point.
- Whenever RSI decrease, that shows value of the share price is down flow, that indicating to the investor that it is a well-built purchase position in the share market. In universal, we give decides by the effect in technological lines can take part in a useful role in the way in and exit of the stock market. Through the application of technical indicators, agents or investors feel happy with substantial profits.
- This analysis is helpful for several fundamental factors and the economy in general, trend lines are a very popular part of technical analysis.
- Technical analysis doesn't work as we use these charts, because some time market prices may volatile in the nature. In that time shareholder or investors are unable to make decisions .
- This analysis is useful in currency markets. Individuals also use this analysis to buy and sell of currency.

CHAPTER-VII SUGGESTION

- Technical analysis is simple and more reliable than fundamental analysis because the information required for technical analysis is freely available as compared to fundamental analysis.
- Even though technical analysis is enough for making decisions in the stock market. Simultaneous usage of both fundamental and technical analysis will reduce errors in forecasting future prices.
- Before going to invest, an investor should have clear knowledge of the capital market so it is the part of the company to educate the investor with all the types of investment alternatives available.
- Investors should have knowledge regarding the market terms so that they can take maximum return from maximum investment.
- As the long term investment is more favour to the company as it can enjoy the benefit of long term cash reserve the marketer should try to push and pull more and longer term investment from the investors.
- Also, it is necessary to keep in mind that only maintaining more and more fund reserves should not be the sole objective of the company, it should also predict the future changes in the value of money, by changing its mind set the company should also play the role of fund creator.
- Investors perceive that the stock market activities are risky and they hesitate to come forward to invest in the stock market, so the company has to execute such programs that train and educate the investors about the benefits of stock market investment and the return they get from it.
- As in the case of the stock market, half knowledge is very dangerous. So it is the responsibility of the company to train the employees and technical analysts to make them experts in the subject of stock market, so that they become experts to solve all the queries of the investors without any wrong information or hesitation and solve the confusions of the investors to increase the investment.
- Investors should use technical analysis so that investors can make the best decision and make time for investing.

- Investors can choose a long time frame for direction analysis and less time frame to enter the market and exit.
- The investor should have information about the conditions of the market so that they can get the most return on the maximum investment.
- By choosing methodology afterward, be consistent in its application. Before participating in the market as an investor.

"Screening of Microbial Cultures for Fermentation of Tea"

In partial fulfilment of the award of the degree of

Master of Science

in

Biotechnology

Submitted by

DEEPENDRA SINGH RAO

Under the Guidance of

Dr. Praveena Bhatt Mudliar

Principal Scientist

Microbiology and Fermentation Technology Department

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[M.Sc. (Biotechnology), IV Semester]

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UDAIPUR

2022

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कार्यक्रम निदेशक
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ANNEXURE I

UNDERTAKING BY THE SELECTED STUDENT FOR PROJECT WORK AT CSIR-CFTRI

The project students and their college / staff members shall have no claim whatsoever on the results of the project work. CSIR-CFTRI retains all Intellectual Property Rights in patents, designs, software, copyright and publications, if any that may be generated during the course of project work. In the event of any dispute arising, the decision of Director, CSIR-CFTRI, is final and is binding on the student(s) and college. (Sl. No. 17 of Annexure I)

The college certificate in the project report prescribed by college / University shall categorically reflect that the place of project work is CSIR-CFTRI and acknowledge the name of the staff member who has guided. (Sl. No. 18 of Annexure I)

The successful execution of the project work by the students is solely under the guidance of scientific/technical guide of CFTRI. **No interference from the College/University is entertained.**

We have read the prescribed rules and regulations (Sl. Nos. 1 to 18 of Annexure I) and we agree to abide by them during our project work at CFTRI, Mysore and to the Conduct and Discipline mandate of the Institute.

Deependra Singh Rao
(Name of student in capital letters)

(Signature of student with date)

Signature (with date) of the Concerned Authority withoffice seal

Course Director
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Date: 20.01.2023

CERTIFICATE

This is to certify that the dissertation entitled, "**Screening of Microbial Cultures for fermentation of tea**" submitted by **Mr. Deependra Singh Rao**, in partial fulfilment of the degree of Master of Science in Biotechnology, from Mohanlal Sukhadia University, Udaipur (Rajasthan), India, is a record of work carried by him at Microbiology and Fermentation Technology Department, CSIR- Central Food Technological Research Institute, Mysuru-570020, under my guidance. The contents of this dissertation, in full or in parts, have not been submitted to any other Institute or University for the award of any Degree or Diploma.

(Signature of the Guide)

for K. Rajagopal 23/1/2023
Signature of Head, M&FT

Signature of Co-ordinator, HRD

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Date: 20/01/2023

CERTIFICATE

This is to certify that the dissertation/project report entitled "**Screening of Microbial Cultures for fermentation of Tea**" submitted towards the partial fulfilment for the award of the degree of Master of Science in Biotechnology, from Mohanlal Sukhadia University, Udaipur (Rajasthan), India is the result of bonafide work compiled by **Mr. Deependra Singh Rao** carried out under the guidance of **Dr. Praveena B Mudliar, Principal Scientist, Microbiology and Fermentation Technology Department, CSIR- Central Food Technological Research Institute (CFTRI), Mysuru** in the academic year of 2021- 2022. No part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

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Udaipur (Raj.)

Signature of Co-ordinator, HRD

Declaration

I, hereby declare that the thesis entitled “Screening of Microbial Cultures for fermentation of Tea” Submitted by me for the award of the degree of Masters of Biotechnology to College of Science, Mohanlal Sukhadia University, Udaipur (Rajasthan) is record of bonafide work carried out by me under the supervision of Dr. Praveena B Mudliar, Principal Scientist at CSIR- CFTRI, Mysuru.

I further declare that the work reported in this thesis has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or any other institute or university.

Place of Submission:

Date:

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Table of Content

Abstract

List of Figures

List of Tables

Abbreviations

S. No.	Chapter	Page No.
1	INTRODUCTION	1-10
2	REVIEW OF LITERATURE	11-16
3	MATERIALS AND METHODS	17-27
4	RESULT AND DISCUSSION	28-37
5	CONCLUSION	38
6	REFERENCES	39-43

Abstract

Kombucha is a sweetened fermented tea and a non-alcoholic beverage made by fermentation carried out by yeast and bacterial cultures. It has a variety of health benefits, including good antioxidant properties and maintaining a healthy gut microbiota. In this study, we investigated combinations of yeast and bacteria capable of producing Kombucha. The yeast and bacterial cultures were selected from CFTRI repository and screened for formation of "mother culture" called as Symbiotic combination of Bacteria and Yeast (SCOBY) as well as for production of the desirable fermented product. Initially steeping of tea was carried out followed by inoculation of the cultures and incubation at 25°C. Titratable acidity, pH, biomass generation, total sugar as well as total reducing sugar levels along with total phenolic content was determined at intervals of 10, 15 and 21 days of incubation for the various microbial combinations tested. The SCOBY forming brew vessel was selected and further analysed for organic acids, residual sugars and phenolic constituents using high performance liquid chromatography (HPLC). The fermented product had a pH of 3.0, total acidity of 0.7, reducing sugar concentration of 15.19 mg/ml, total sugar concentration of 60.75 mg/ml and total phenolic concentration was 7.12 mg/ml. Sucrose, glucose and fructose were found to be the residual sugars while acetic, lactic and propionic acids were the organic acids present in the product as analysed by HPLC.

List of Figures

Fig 1: Benefits of Fermented foods.

Fig 2: General pathway of metabolism of glucose by Heterolactic and Homolactic.

Fig 3: Mechanisms of action of probiotics.

Fig 4: Metabolic activities during the kombucha fermentation by the use of yeasts, acetic acid bacteria, and lactic acid bacteria

Fig 5: Titration

Fig 6: Standard curve of Glucose

Fig 7: Standard curve of Sucrose

Fig 8: Standard curve of Gallic acid

Fig 9: HPLC System

Fig 10: The bacterial cultures (C1, C2, C3 and C4) gram staining

Fig 11: Yeast cultures (Y1, Y2, Y3 and Y4)

Fig 12: Change in pH of samples during fermentation (SET 1)

Fig 13: Change in pH of samples during fermentation (SET 2)

Fig 14: Change in pH of samples during fermentation (SET 3)

Fig 15: Change in titratable acidity of samples during fermentation (SET 1)

Fig 16: Change in titratable acidity of samples during fermentation (SET 2)

Fig 17: Change in titratable acidity of samples during fermentation (SET 3)

Fig 18: Reducing sugar determination during fermentation (SET 1)

Fig 19: Reducing sugar determination during fermentation (SET 2)

Fig 20: Reducing sugar determination during fermentation of tea (SET 2)

Fig 21: Total sugar determination in fermented tea samples (SET 1)

Fig 22: Total sugar determination in fermented tea samples (SET 2)

Fig 23: Total sugar determination in fermented tea samples (SET 3)

Fig 24: Sensorial evaluation score (SET 1)

Fig 25: Sensorial evaluation score (Set 2)

Fig 26: HPLC chromatogram of samples pre- and post- fermentation indicating presence of A) Sucrose B) Glucose C) Fructose

Fig 27: HPLC chromatogram of samples pre- and post- fermentation indicating presence of Organic acids A) Tartaric B) Lactic C) Acetic D) Propionic

LIST OF TABLES

Table 1: Biochemical compounds: responsible for the taste in black tea

Table 2: Commonly used species of lactic acid bacteria in probiotic preparations

Table 3: Chemical Composition in kombucha.

Table 4: Composition of MRS media

Table 5: Composition of YPD media.

Table 6: Instruments Used

Table 7: Set 1 with single combination

Table 8: Set 2 with single bacterial and double yeast combination

Table 9: Set 3 with two bacterial and two yeast combinations

Table 10: Optical density of glucose at different concentration

Table 11: Optical density of sucrose at different concentration

Table 12: Optical density of Gallic acid at different concentration

Table 13: gives the colony morphology of the bacterial cultures used.

Table 14: Composition of brewed Kombucha (pre- and post- fermentation) using the SCOBY produced from C2Y1Y2

ABBREVIATIONS

CFU: colony-forming units

AAB: Acetic Acid Bacteria

LAB: Lactic Acid Bacteria

FAO: Food and Agriculture Organization of the United Nations

WHO: World Health Organization

SSF: Solid-State Fermentation

°C: degrees Celsius

psi: pounds per square inch

pH: *potential of hydrogen*

HPLC: High Performance Liquid Chromatography

YPD: Yeast extracts Peptone Dextrose

rpm: revolutions per minute

µl: Microliter

µg: Microgram

ml: Millilitre

g: Gram

L: Litre

SCOBY: Symbiotic Culture of Bacteria and Yeast

DNSA: 3,5-DiNitroSalicylic Acid

OD: Optical Density

nm: nanometer

MQ water: Milli-Q water

INTRODUCTION

1.1) Fermentation

Fermentation is derived from the Latin word "fervent" which means to boil. The study of fermentation is called “Zymology”. Louis Pasteur is considered to be the father of fermentation and was the first to use the word "fermentation" for the first time. He discovered various microorganisms, such as bacteria and yeasts, that are involved in fermentation processes. Fermentation is “a chemical and physical transformation that occurs in an organic substrate due to the action of free enzymes and the presence of microorganisms”.

There are two kinds of fermentation: - 1) Aerobic fermentation 2) Anaerobic fermentation

1) Aerobic fermentation, is the process by which microbes consume organic matter in the presence of oxygen and nutrients. In the growth phases, glucose is totally broken down into oxygen and carbon dioxide: glycolysis, Kreb cycle, and oxidative phosphorylation. 2) Anaerobic fermentation, cells generate energy from carbohydrates in the absence of oxygen, eg. alcoholic and lactic acid fermentation. Fermentation begins with glycolysis, in which glucose and other sugars are oxidised to form adenosine triphosphate (ATP), which provides the energy for the cells.

Fermentation extends the shelf life of food, and improves protein, vitamin, carbohydrate digestibility, and mineral bioavailability. Fermented foods and drinks have been an important component of the human diet since ancient times due to their healing properties, and they continue to be important in many developing countries where they are an integral part of local traditions and rituals. Food fermentation's primary functions are preservation, sensory enhancement (flavour, texture, or colour), and nutritional change (improvement of digestibility and biofortification).

One of the most affected sensory attributes by fermentation is flavour. Food substrates (carbohydrates, proteins, lipids, organic acids, amino acids, phenolic compounds, glycosides, and so on) are converted into nonvolatile and volatile flavour chemicals, which influence not only taste but also smell and, as a result, food acceptability. These taste components provide a variety of sensory qualities such as sweetness (e.g., mannitol), sourness (e.g., lactic acid), savoriness or umami (e.g., l-glutamic acid), bitterness (e.g., hydrophobic peptides), fruitiness (esters), and sulphurous notes (volatile sulphur compound). (Fan et al. 2012)

Most common fermented foods across the globe include kefir, sauerkraut, tempeh, natto, curd, buttermilk, cheese, miso, kimchi, salami, yogurt, sourdough bread, beer, wine, olives.

Fermentation helps in the breakdown of nutrients in food, making it simpler to digest than their unfermented alternatives. Lactose, a natural sugar found in milk, is broken down during fermentation into simpler sugars such as glucose and galactose. As a consequence, those who are lactose intolerant can enjoy fermented dairy products like kefir and yoghurt. Furthermore, fermentation helps in the breakdown and destruction of antinutrients such as phytates and lectins, which are compounds contained in seeds, nuts, grains, and legumes that inhibit nutrient absorption (Gupta et al. 2015).

1.2) Fermented foods

Fermented foods or beverages are prepared using controlled microbial growth and enzymatic conversion of food nutrients. Many products, including meat and fish, dairy, vegetables, soybeans, other legumes, grains, and fruits, have historically been fermented. The fermentation process includes various factors such as microorganisms, nutritional components, and environmental conditions, resulting in thousands of distinct varieties of fermented meals. Food fermentation has traditionally been used to preserve food since the production of antimicrobial metabolites (e.g., organic acids, ethanol, and bacteriocins) minimises the chance of infection with harmful microbes. Fermentation is also used to improve organoleptic qualities (such as taste and texture), with some foods being inedible without the removal of bitter phenolic compounds by fermentation.

Food is fermented in two ways. First, foods can be fermented spontaneously, also known as "wild ferments" or "spontaneous ferments," in which bacteria are present naturally in the raw food or processing environment, such as sauerkraut, kimchi, and various fermented soy products. Second, foods can be fermented by adding starter cultures, resulting in "culture-dependent ferments" such as kefir, kombucha, and natto. Backslopping is one way of executing a culture-dependent ferment, in which a little bit of a previously fermented batch is added to the raw food, such as sourdough bread. Starters used to induce fermentation can be either natural (e.g., backslopping) or chosen commercial starters to standardise the organoleptic qualities of the end product. (Dimidi et al., 2019).

In general, or convenience, fermented foods are divided as dairy and non-dairy products. A few foods under each category is discussed below:

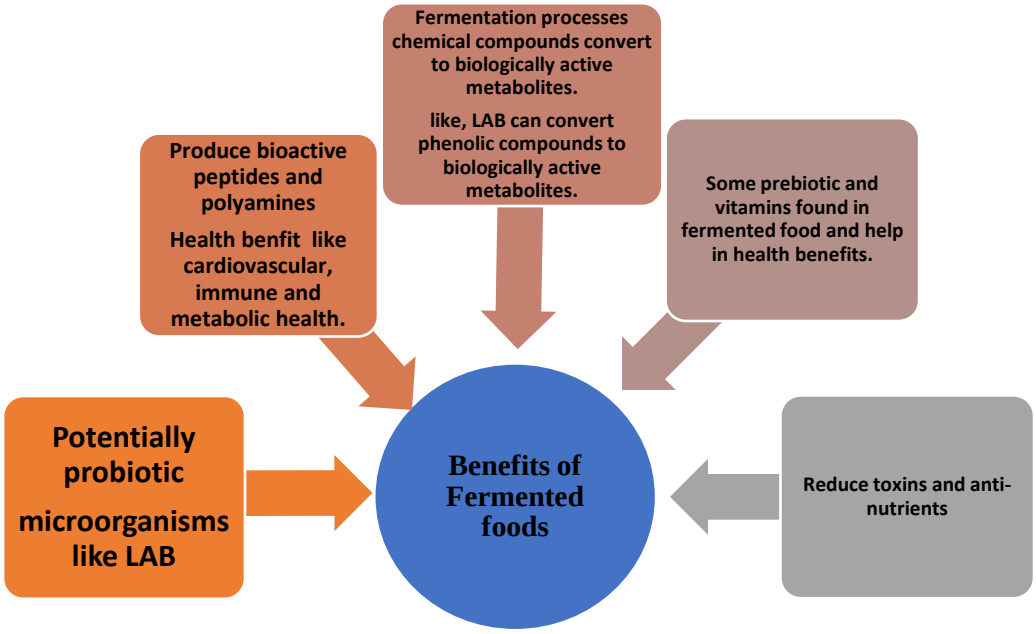


Fig: Benefits of Fermented foods.

1.2.1) **Fermented Dairy products**

Buttermilk

Buttermilk is a thin, non-fat liquid left in a churn after making butter, is rich in nutrition, kept for some hours in room temperature to enrich the flavour of the butter. Buttermilk, like natural yoghurt and kefir, is still cultured milk. It contains probiotics and active cultures found in fermented foods such as natural yoghurt, kefir, kombucha, sauerkraut, kimchee, and other fermented foods that improve digestion and support gut health.

Mozzarella Cheese

Mozzarella is a southern Italian stretched curd cheese traditionally made from Italian buffalo's milk by the pasta filata method. It has a smooth, shiny, very thin skin and a porcelain white colour. Mozzarella is the undisputed queen of many dishes, including the symbol of Italian food, pizza.

Dahi

It’s a natural probiotic containing, unstrained yoghurt prepared from cow or buffalo milk. It is consumed as such or also used in various curry and sweet preparation all over South and Southeast Asia. Dahi production has become more industrialized with companies like Amul, Saras, Nestle, Nandini etc., already in the market, in India.

Gouda Cheese

Gouda is a yellow colour cheese named after the Dutch city of Gouda, and it is among the most common Dutch- style cheeses made worldwide. It’s a semi- hard cheese made from

cow’s milk, but it can be made from sheep’s or goat milk. This form of cheese matures in 1-20 months, during which time the flavour evolves from mild to intense and it can be eaten at any point of maturity.

Airaag/ Koumiss/ Chigee

Airaag, also known as Koumiss or Chigee, is a widespread beverage that has been made in Central Asia for centuries. In Kazakhstan, Kyrgyzstan, parts of Russia, and China's Xinjiang, Inner Mongolia, and Qinghai, as well as Mongolia. It's a sour fermented drink made from unpasteurized fresh mares' milk that's slightly alcoholic.

1.2.2) Non-dairy products

Kefir

Kefir is a fermented milk drink with a creamy texture, sour flavour, and delicate effervescence. It is made by introducing a starting culture known as "kefir grains" into milk. Kefir is looks like in-vitro plant callus. Kefir grains are made up of symbiotic lactose-fermenting yeasts (e.g., *Kluyveromyces marxianus*) and non-lactose fermenting yeasts (e.g., *Saccharomyces cerevisiae, Saccharomyces unisporus*), as well as bacteria that produce lactic and acetic acid. Lactic acids, flavor-generating components (such as acetaldehyde), ethanol, and carbon dioxide are all fermentation byproducts that contribute to the organoleptic qualities of kefir. Water kefir is a dairy-free variant of kefir that is a fermented beverage made of water, sugar, and water kefir grains that contain bacteria and yeasts that are distinct from traditional kefir starting cultures. (Lopitz et al. 2006, Rosa et al., 2017).

According to the Food and Agriculture Organization (FAO) and the World Health Organization (WHO), kefir grains should have at least 107 colony forming units (CFU)/g microorganisms and the finished product should have at least 104 CFU/g yeast. (World Health Organization. 2003)

Sauerkraut

Sauerkraut is made of combination with shredded cabbage and 2.3% to 3.0% salt concentration, which is then left to ferment naturally by bacteria such as *Leuconostoc spp*., *Lactobacillus spp*., and *Pediococcus spp*. The end product has a low pH, resulting in preserving cabbage. (Swain et al. 2014).

Tempeh

Tempeh is a traditional Indonesian food prepared by fermenting boiled and dehulled soybeans for 35-37 hours at room temperature with a starting culture of *Rhizopus oligosporus* fungus species. (Jayachandran & Xu 2019, Cao et al., 2019). This results in a soft white cake with a chewy texture and a mushroom flavour. The microbial makeup of tempeh changes depending

on manufacturing. (Nout and Kiers, 2005). Lactic acid bacteria, *Enterococcus faecium* (Moreno et al., 2002), and *Rhizopus* filamentous fungus are all found in tempeh.

Kombucha

Traditional kombucha is prepared by aerobic fermentation of black tea (green tea may also be used) and white sugar by a bacterial and yeast combination known as the symbiotic culture of bacteria and yeast (SCOBY).

Sucrose is converted by yeast to ethanol (together with organic acids and carbon dioxide), which is then converted by acetic acid bacteria to acetaldehyde and acetic acid (Dufresne and Farnworth 2000). The specific composition of the SCOBY, the kind and concentration of tea and sugar, oxygen concentrations, fermentation time, temperature, and storage length all influence the microbial and metabolite composition of kombucha. (Fu 2014, Gaggìa 2018, Lončar 2006, Chen 2000, Filippis 2018)

The low pH of kombucha has been shown to prevent the growth of pathogenic bacteria such as *Helicobacter pylori, Escherichia coli, Salmonella typhimurium,* and *Campylobacter jejuni.* Kombucha inhibited pathogen development in vitro even at neutral pH and after thermal denaturation, indicating that molecules other than acetic acid had antibacterial properties. (Sreeramulu et al., 2000)

Acetic acid bacteria (*Acetobacter*, *Gluconobacter*), lactic acid bacteria (*Lactobacillus*, *Lactococcus*), and yeasts (*Saccharomyces, Zygosaccharomyces*) are common bacterial and fungal species found in SCOBY. Following fermentation, high-throughput sequencing research revealed that the *Candida* and *Zygosaccharomyces* genera are the most prevalent yeasts in kombucha, whereas the most abundant bacterial species are *Komagataeibacter*, *Lyngbya*, *Gluconobacter*, *Lactobacilli*, and *Bifidobacteria*.

Miso

Miso is a traditional Japanese fermented soybean paste that is used to make miso soup. Miso is made by fermenting soybeans with the fungus *Aspergillus oryzae*, while *Saccharomyces cerevisiae* and lactic acid bacteria may also be utilised. Miso manufacture, like that of other fermented soy meals, varies widely in terms of ingredients, temperature and fermentation period, salt content, and the strain of *A. oryzae* utilised (Onda et al., 2003).

Kimchi

Kimchi is a Korean name that refers to a group of salted and fermented vegetables. It is made up of cabbage and radishes, as well as other flavouring elements (such as chilli, pepper, garlic, onion, and ginger), spices (such as salt, soybean sauce, and sesame seed), and other ingredients (e.g., carrot, apple, pear, shrimps). Although starter cultures may be used for

commercial kimchi production, the fermentation occurs spontaneously by microbes naturally found on the cabbage and items included in the combination.

Prior to fermentation, the kimchi combination contains a variety of bacterial species from the genera *Leuconostoc, Lactobacillus, Pseudomonas, Pantoea, and Weissella*. However, once fermentation begins, bacterial diversity declines and the bacterial population is quickly dominated by the genus *Leuconostoc* within three days.

1.3) Types of fermentation

Basis on the end products of the fermentation process

i) Alcohol fermentation

Pasteur introduced the word fermentation in 1857 to describe the alcoholic fermentation of yeast. When yeast cells are added to sugar solution, they are turned into alcohol, according to him. Buchner isolated zymase complex enzyme from yeast cells in 1897, which fermented sugars in the absence of active yeast cells.

$$C6H12O6 \longrightarrow 2C2H5OH + 2CO2$$

i) lactic acid fermentation

The action of the bacteria *Lactobacillus lactic* in the presence of the enzyme lactic dehydrogenase converts pyruvic acid to lactic acid. NADH2, a co-enzyme, is oxidised.

$$CH3COCOOH + NADH_2 \longrightarrow CH3CHOHCOOH + NAD$$

ii) Acetic acid fermentation

It is a double fermentation technique that makes use of ambient oxygen. Aerobic bacteria, such as *Acetobacter aceticus,* oxidise ethanol to produce acetic acid or vinegar (aerobic).

I Fermentation

$$C_6H_{12}O_6 \longrightarrow 2C_2H_5OH + 2CO_2 \text{ (Ethyl alcohol)}$$

II Fermentation

$$C_2H_5OH + O_2 \longrightarrow CH_3COOH + H_2O \text{ (Acetic acid)}$$

1.4) Tea fermentation and associated organisms

Camellia sinensis is one of the major species used to make all forms of tea, with differences originating from the various processing procedures that are utilised. Black tea I is the usually preferred tea variety for fermentation. The colour, taste, flavour, and scent of black tea is

caused by oxidised polyphenolic chemicals such as theaflavins (TF) and thearubigins (TR) generated during fermentation (Table 4).

Consumption of fermented tea has several health benefits that include 1) Improve the immune system 2) Reduce joint pain 3) Antioxidant activities 4) Anticancer activity 4) Reduce cholesterol levels 5) Improve gut health

Compounds	Taste
Theaflavins	Mouth drying, rough astringent
Thearubigins	Ashy and slightly astringent
Catechin	Puckering astringent
Epigallocatechin gallate	Astringent and bitter
Caffeine	Bitter, brisk, and creamy
Amino acids	Brothy

Table 1: Biochemical compounds: responsible for the taste in black tea

1.5) Lactic Acid Bacteria, Acetic acid bacteria and Yeast

1.5.1. Lactic Acid Bacteria

Good acidifying capability, the ability to contribute to the desired flavour, and the potential generation of exopolysaccharides (EPS) to improve texture are all desirable qualities of LAB for using them as starter cultures and adjunct cultures in fermented products. LAB cultures can also be used to control the amount of contaminating or harmful bacteria. Their probiotic potential is already regarded as a favourable characteristic of LAB. Tolerance to gastrointestinal conditions, such as stomach acidity, digestive enzymes, and bile salts, has been utilised as a measure of LAB's probiotic capacity. The isolation of LAB strains capable of generating bacteriocins, which lower pathogen growth risk. The capacity to ferment carbohydrates to lactic acid by homo- or heterofermentative metabolism.

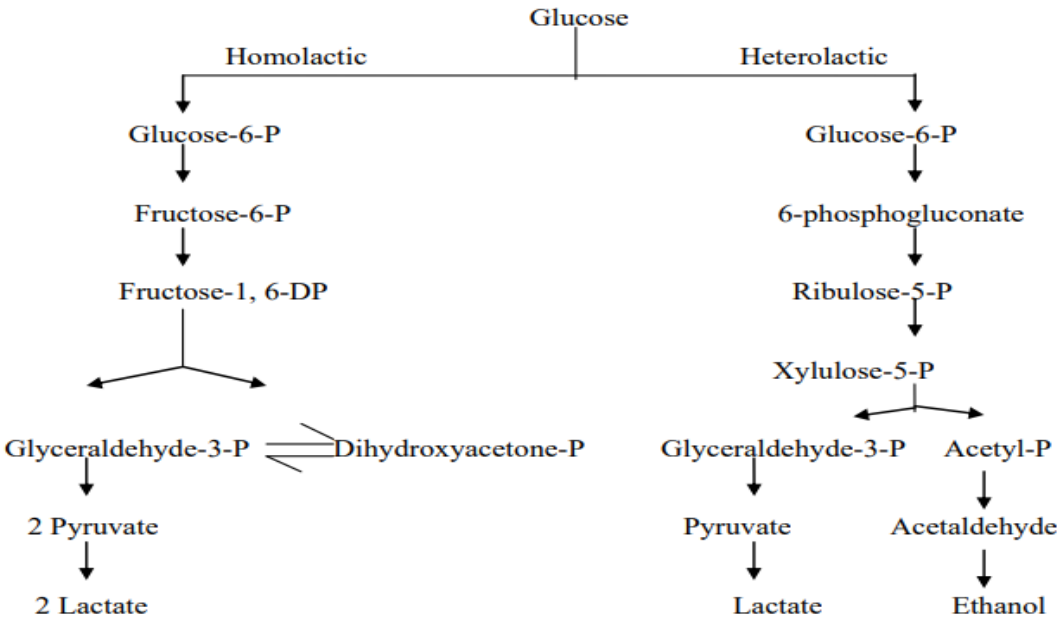


Fig 2: General pathway of metabolism of glucose by heterolactic and homolactic lactic acid bacteria (Caplicec & Fitzgerald, 1999)

LAB are characterised as Gram-positive, non-spore-forming, catalase-negative, cytochrome-deficient, anaerobic or microaerophilic bacteria. They have a strong fermentative metabolism with lactic acid as the predominant end product of sugar fermentation. LAB lack the electron transport chain mechanism and dependent on fermentation with substrate-level phosphorylation for energy generation. Some LAB can also produce metabolites with specialised antagonistic and antibacterial activity, such as antifungal chemicals and bacteriocins, which have the ability to inhibit a wide range of pathogens. *Lactococcus, Oenococcus, Lactobacillus, Leuconostoc, Pedicoccus*, and certain *Streptococcus* are examples of GRAS organisms.

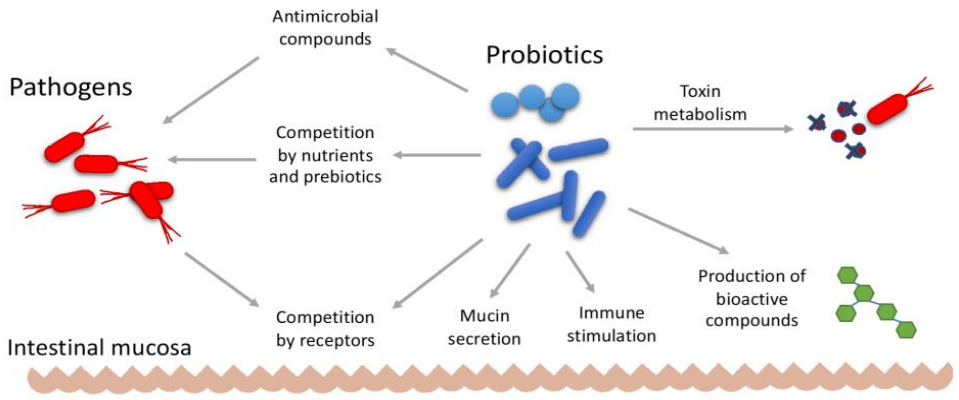


Fig 3: Mechanism of action of probiotics (Coelho et al. 2022).

LAB constitute the largest group of probiotic bacteria. Probiotic may also include species of *Bacillus* and several yeast strains from the genus *Saccharomyces* (Markowiak and Śliżewska 2017)

Probiotic bacteria	Species
Lactobacillus sp.	*L. acidophilus, L. casei, L. delbrueckii ssp., L. cellobiosus, L. curvatus, L. fermentum, L. lactis, L. plantarum, L. reuteri, L. brevis*
Bifidobacterium sp.	*B. bifidum, B. adolescentis, B. animalis, B. infantis, B. thermophilum, B. longum*
Enterococcus sp.	*Ent. faecalis, Ent. Faecium*
Streptococcus sp.	*S. cremoris, S. salivarius, S. diacetylactis, S. intermedius*

Table 2: Commonly used species of lactic acid bacteria in probiotic preparations (Tripathi and Giri 2014)

1.5.2. Acetic acid bacteria

AAB are aerobic bacteria that can occur singly, in pairs, or in chains. They are Gram-negative or Gram-variable, catalase-positive and oxidase-negative, ellipsoidal to rod-shaped cells that can occur singly, in pairs, or in chains. They are likewise mesophilic bacteria, with an optimal growth temperature of 25 to 30 °C. Their normal pH range for growth is 5.0–6.5; however, they can also thrive at lower pH levels. AAB species are well recognised for their capacity to oxidise alcohols, aldehydes, sugars, and sugar alcohols in the presence of oxygen. AAB may be found on plants, flowers, and fruits. Carbohydrates, sugar alcohols, and ethanol are abundant in these aerobic settings. Acetic acid bacteria (AAB) are members of the *Acetobacteraceae* family, which contains multiple genera and species. *Acetobacter, Acidomonas, Ameyamaea, Asaia, Bombella, Commensalibacter, Endobacter, Gluconacetobacter, Gluconobacter, Granulibacter, Komagataeibacter, Kozakia, Neoasaia, Neokomagataea, Nguyenibacter, Saccharibacter, Swaminathania, Swingsia,* and *Tanticharoenia* are the current genera. (Roos & Vuyst (2018).

1.5.3. Yeast

Yeast species from the genera *Saccharomyces, Zygosaccharomyces, Dekkera/Brettanomyces, Pichia*, and others have already been recovered. Yeasts are fungi, which are eukaryotic microorganisms. They are non-motile, having spherical or oval-shaped cells with a diameter of around 8 mm. They are facultatively anaerobic but require oxygen for particular hydroxylations that sustain development (such as the biosynthesis of ergosterol). Although optimal growth conditions are around 20–30 C and pH 4.5–7.0, many yeasts can still grow around pH 2.5. Yeasts are well-known for producing ethanol and carbon dioxide. Some yeasts, such as *Rhodotorula glutinis*, are obligately fermentative and can only do fermentation, whereas others, such as *Kluyveromyces lactis* and *Yarrowia lipolytica*, are obligately respirative and can only perform respiration. Most yeasts (such as *Saccharomyces cerevisiae* and *Dekkera bruxellensis*) are facultatively fermentative, indicating organisms can produce energy through fermentation or respiration. Respiration is only feasible in the presence of oxygen, although this does not ensure respiratory metabolism. Many yeasts will continue to ferment in aerobic conditions as long as carbohydrates are available (this is known as the "Crabtree effect"). Yeasts can also produce glycerol in response to high osmotic pressure and to maintain internal redox. Acetic acid, which is known to result in a decreasing pH during yeast alcoholic fermentation, is another compound that yeasts can produce to maintain a suitable internal redox balance. (Laureys et al. 2020).

Review of literature

Starter cultures, preparation, characteristics and health benefits of fermented products

Starter culture are preparations consisting of number of cells, either of a single organism or a combination of two or more microbes, which are added to foods to benefit from the compound or products resulting from their metabolism or enzymatic activity. LAB based starter cultures have a plethora of application in food processing (Fox 2017).

Several in vitro experiments have been conducted to study kefir's (a fermented milk), for its starter culture and antibacterial action which is attributed to pathogen competition for available nutrients as well as the synthesis of organic acids, bacteriocins, carbon dioxide, hydrogen peroxide, ethanol, and diacetyl (Leite et al., 2013.). Kefir has antibacterial action against *Candida albicans, Salmonella typhi, Salmonella enterica, Shigella sonnei, Escherichia coli, Bacillus subtilis, Enterococcus faecalis,* and *Staphylococcus aureus,* according to in vitro investigations (Silva et al., 2009, Chifiriuc et al., 2011). Many bacteria species found in kefir can be used as starter cultures, including *Lactobacillus kefir, L. brevis, L. casei, L. plantarum, Streptococcus lactis, Leuconostoc mesenteroidis,* and *Acetobacter aceti*. Kefir prepared with kefir grains (K1) and sequential fermentation was more acidic in the kefir preparations studied. Individual kefir grain bacteria and yeast acidities and carbon dioxide generation (K2 procedure) was also monitored. Klupsch (1984) observed comparable findings when *L. acidophilus* and *L. brevis* were combined with *L. lactis subsp. lactis*. *Streptococcus lactis* and its biovar *diacetilactis, Streptococcus cremoris,* and *Streptococcus lactis*. When lactic acid bacteria were employed in 1:1, 1:2, and 2:1 ratio to *St. lactis* and *Leu. mesenteroides* (without *Acetobacter aceti*), the maximum acidity increased to 0.75 and 2.2% CO2 was created, indicating that the product was acceptable. *Lactobacillus* strains mixed with yeast were also approved.

Sauerkraut has also been shown to possess a high number of *Leuconostoc* and *Lactobacillus* spp (Touret et al., 2018). Certain *Lactobacillus* species isolated from sauerkraut show probiotic potential in vitro, including low pH tolerance, adhesion to Caco-2 cells, and antibacterial action against pathogens. (Zhang et al., 2013). Oral administration of sauerkraut juices to Wistar rats boosted the activity of glutathione S-transferase (GST) and NAD(P)H: quinone oxidoreductase 1 (NQO1), two essential liver and kidney detoxification enzymes. (Krajka-Kuźniak 2011). Certain lactic acid bacteria in sauerkraut produce conjugated linoleic acid. (Zeng et al., 2009), which has anti-carcinogenic and anti-atherosclerotic effects in animals.

Glucosinolate breakdown products found in sauerkraut include kaempferol, (a flavonoid), isothiocyanates, indole-3-carbinol, goitrin, allyl cyanide, and nitriles. (Tolonen et al.,2002)

Isothiocyanates have been demonstrated to have antibacterial effects, inhibiting the development of a variety of bacteria, including *E. coli, Clostridium difficile, Clostridium perfringens,* and *Clostridium perfringens*. (Romeo, 2018).

Soybean fermentation has been demonstrated to lower levels of protease inhibitors, phytic acid, and phenols (Salem et al., 2014), antinutritional substances found in raw soybeans that may be related to phytases produced by *Rhizopus species* in tempeh (Buckle 1988). Fermented soy products have been proposed to provide health benefits such as "anti-carcinogenic," "anti-diabetic," "antioxidant," "anti-inflammatory," and "anti-hyperlipidaemic" properties, while much of the existing evidence is restricted to in vitro and animal research.

Kombucha, the sweetened fermented tea with symbiotic culture like yeast and bacteria, after fermentation creates a floating zoogleal mass of microbial cellulose. It's prepared through the aerobic and static fermentation of sucrose, tea (black, green, or Oolong) and with a symbiotic culture of bacteria and yeast (SCOBY). The preparation usually dissolution of 50 to 100 g sugar in per/ liter of boiling water and subsequently, tea leaves are steeped for a short period, after which they are removed. Jayabalan and colleagues reported an addition of 5 g/L tea and steeping regime of 5 min. Then after cooled to 20°C. Then add inoculum (Yeast and Bacteria). After adding keep for the fermentation in the incubator at 18-28 °C for 8 to 14 days. A fermentation is performed under aerobic condition. The medium is aerobic, high content sucrose and slightly acidic due to the adding of inoculum. Within the fermentation microbial ecosystem, many types of symbiotic relation can be found. The sucrose is hydrolyzed into glucose and fructose by an invertase enzyme in the periplasm of yeast cells and the concentration increase of glucose and fructose in the medium. AAB convert glucose to glutamic acid and yeast stimulate the production for glucuronic acid by AAB. Also, yeasts produce ethanol, carbon dioxide, and glycerol using glucose and fructose. Many health benefits have been reported for kombucha like, a) reduce cholesterol levels and blood pressure; b) increase weight-loss; c) improve liver, glandular, immune, and gastric functions; d) reduce kidney calcification; e) increase vitality; combat acne; eliminate wrinkles; f) purify the gallbladder; improve constipation; alleviate arthritis pain; inhibit cancer proliferation; cure AIDS; and many others.

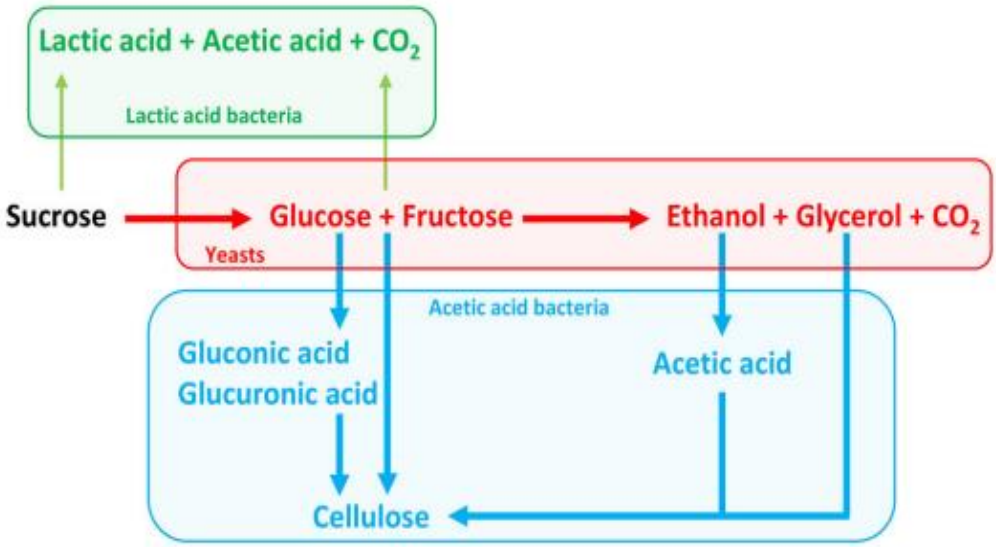


Fig 4: Metabolic activities during the kombucha fermentation by the use of yeasts, acetic acid bacteria, and lactic acid bacteria (Laureys et al., 2020)

Ivanišová et al., (2020) focused on the chemical composition and compared unfermented black tea and kombucha based on organic acid, total polyphenol content, sugar, and antioxidant activity. They used concentration of tea 5g and 30 g sugar per litter. They found organic acid was acetic acid (1.55 g/L), sucrose (17.81 g/L), total polyphenol content which was higher (p\0.05) in kombucha beverage (412.25 mg GAE/L) than in black tea (180.17 mg GAE/L).

Malbasa et al. (2008) used local domestic kombucha as a primary bacterium strain be part of genera *Acetobacter*, while the presence of yeasts *Saccharomycodes ludwigii, Saccharomyces cerevisiae, Saccharomyces bisporus, Torulopsis sp.* and *Zygosaccharomyces*. They used molasses as carbon source. Three different types of moles used M1, M2 and M3 (Malbaša 2008). Mayser et al. (1995), isolated three acetic acid bacteria from kombucha, which were identified on acetobacter agar medium as *Acetobacter xylinum, A. pasteurians,* and *A. aceti*. Additionally, and two lactic acid bacterial isolates namely *Lactobacillus fermentum* and *L. acidophilus*. Marsh et al. (2014), have also described that the most abundantly present bacteria in five kombucha samples collected from different origins were species of *Gluconacetobacter* and *Lactobacillus*.

Table 3: Chemical Composition in kombucha.

Chemical	Benefits	Reference
Vitamin	Contain high levels Vitamin C and some vitamin B. Vitamins cannot be synthesized within the body. Vitamin C does not require a coenzyme, although it acts as a cofactor for an enzyme called "prolyl hydrolase", which aids in the formation of collagen.	Chambial et al., 2013, Berg et al., 2002
Minerals	Used in many metabolic pathways in body for growth. Fluorine plays an important role in the hard tissue mineralization process.	Berg et al., 2021, Miranda et al., 2022 Bauer and Tozi 2000
Polyphenols	Bioactive substances, largest group of phytochemicals and are the most abundant antioxidants in the diet, The primary polyphenols found in fresh tea leaves are flavonoids flavanols, flavanol gallate, and flavanol glycosides. The major polyphenols tea catechins: α-epigallocatechin-3-gallate (EGCG), α-epigallocatechin (EGC), α-epicatechin-3-gallate (ECG), α-epicatechin (EC), α-epicatechin-3-gallate (ECG), α-gallocatechin, and β-catechin. **Cardoso et al. (2020)** found total phenol in Fermented black tea 0.70 mg GAE/mL (green)–1.09 mg GAE/mL (black), **Yang et al. (2022)** found total phenol 120 µg/L GAE, 380 µg/L GAE. **Ozyurt (2020)** found in fermented black tea green (312 µg GAE/mL) and black (422 µg GAE/mL).	Cardoso et al., 2020, Yang, J. et al., 2022, ÖZYURT 2020, Sharma et al., 2007, Scalbert et al., 2005
Ethanol	Byproduct of yeast fermentation. **Chen and Liu (2000)** found ethanol in fermented black tea maximum value of 5.5 g/L on day 20. Fermented tea alcohol 0.7- 1.3 % contain.	Chen & Liu 2000.

Organic Acids **Lactic Acid** **Glucuronic acid**	Yeast and bacteria hydrolyze sucrose into glucose and fructose using the enzyme invertase. Yeast within the matrix then produces ethanol via glycolysis, using fructose as the primary substrate. An acetic acid bacterium use the glucose to make gluconic acid and also utilize the ethanol produced by the yeast and turns it into acetic acid. Antiseptic properties, inhibiting the growth of pathogenic microbes. Glucuronic acid is the detoxifier in the body and important role in increasing the bioavailability of polyphenols.	Vina et al, 2014
Caffeine	The stimulating effect on the nervous system that they provide, along with an increase in energy. Important role during the fermentation process, by providing the yeast and bacteria with the nitrogen necessary for metabolic processes and building new cells, as well providing energy for the yeast and bacteria so they can undergo the fermentation process	Crum and LaGory 2016.
Amino Acids and Biogenic Amine (BAs)	Amino acids play an important role in the human body, they can transform into biogenic amines (BAs). BAs are the result of microbial decarboxylation during the fermentation process.	Ruiz and Herrero, 2019

Bhattacharya et al., (2013) demonstrated that fermented black tea had beneficial effects on antidiabetic and antioxidant status in ALX-induced diabetic rats. They made a comparison between fermented (KT) and unfermented tea (BT) for the functional properties. Many types of tea available in market like green tea, black tea, oolong tea, etc. but the characteristic based on how much time they fermented. Black tea fermented in 14 days and fermentation was carried out by a consortium of yeast and acetic acid bacteria. Their study suggested that KT had more polyphenols and flavonoids than black tea itself. Moreover, the free radical scavenging activities of FBT were found to be higher than BT. In a similar study by Pari and Saravanan (2004), ALX-induced diabetic rats showed loss in body weight, increased blood

glucose levels, increased levels of glycated Hb and decreased insulin levels. However, administration of FBT as well as BT to the diabetic rats controlled the loss in body weight and restored the blood glucose levels, glycated Hb and serum insulin levels close to normal, suggesting their antidiabetic activities.

In addition, **Jayabalan et al. (2007)** reported the presence of tea polyphenols like (-)-epicatechin (EC), (-)-epicatechingallate (ECG), (-)-epigallocatechin (EGC), (-)-epigallocatechingallate (EGCG) in FBT. The water in soluble vitamin content (Vitamins B1, B12, B6, C) of BT was also found to be increased by about two folds in FBT after the fermentation period. the increase in the popularity of tea and fermented tea. Lactococcus sp. GM005, which generates a bacteriocin with excellent antibacterial activity that inhibits the development of a variety of bacteria, including *Bacillus subtilis, Pediococcus acidilactici, and Lactobacillus plantarum*, has also been found in miso samples. (Onda et al., 2003).

MATERIALS AND METHODS

3.1) MATERIALS

All the plastic and glassware like bottles, tips etc., were procured from HiMedia Chemicals Pvt Ltd., Bangalore. They were sterilized by autoclaving at 121°C and 15 psi for 15-20 min. The reagents for the chemical analysis were procured from Sigma Aldrich Pvt Ltd., Bangalore

3.1.1) Culture used for study

The cultures used in the study were selected from CFTRI repository and consisted of lactic acid bacteria, acetic acid bacteria and yeast.

3.1.2) Media used

MRS Broth and Agar

MRS Broth and Agar were used for the cultivation of *Lactobacilli* and acetic acid bacteria

SO. No.	Ingredients	g/L
1	Proteose peptone	10.000
2	Peptone B#	10.000
3	Yeast extract	5.000
4	Dextrose (Glucose)	20.000
5	Polysorbate 80 (Tween 80)	1.000
6	Ammonium citrate	2.000
7	Sodium acetate	5.000
8	Magnesium sulphate	0.100
9	Manganese sulphate	0.050
10	Dipotassium hydrogen phosphate	2.000
11	Agar- Agar	2%
12	Final pH	6.5±0.2

Table 4: Composition of MRS media

Yeast extract – Peptone- dextrose (YPD) Broth and Agar

YPD Broth and Agar were used for the cultivation of Yeast

SO. No.	Ingredients	g/L
1	Peptic digest of animal tissue	20.000
2	Yeast extract	10.000
3	Dextrose	20.000
4	Agar- Agar	2%
5	Final pH (at 25°C)	6.5±0.2

Table 5: Composition of YPD media.

3.1.3) Chemicals, Reagents and Solvents Used

Sodium Chloride (NaCl) (for saline 0.84%), Gram Staining (crystal violet, Gram's iodine, 95% ethyl alcohol and safranin), Hydrogen Peroxide (H_2O_2), Sodium Hydroxide (NaOH), Phenolphthalein ($C_{20}H_{14}O_4$), 3,5- Dinitrosalicylic Acid ($C_7H_4N_2O_7$), Sodium Potassium tartrate ($C_4H_4O_6KNa.4H_2O$), Phenol (C_6H_6O) , Sulphuric Acid (H_2SO_4), Folin-Ciocalteu Reagent ($C_{10}H_5ONaO_5S$), Gallic Acid ($C_7H_6O_5$), Sodium Carbonate (Na_2CO_3), Glucose ($C_6H_{12}O_6$), Sucrose ($C_{12}H_{22}O_{11}$), Lactic Acid ($C_3H_6O_3$), Acetic Acid (CH_3COOH), Methanol (CH_3OH), Acetonitrile (C_2H_3N) and Milli Q water.

3.1.4) Instruments Used:

pH meter	Eutech instruments pH tutor pH/°C meter
Laminar Hood	Bioklenz: Laminar air flow Biosafets level- 2
Centrifuge	Spinwin centrifuge
Incubator 25°C, 30°C and 37°C	Alfa instrumets Incubation shaker: AI:0855 Standard operating procedure for B.O.D. Incubator (Remi make) Standard operating procedure for Incubator (Lawerance & Mayo make)
Bright field Microscope	Labomed vision 2000
Weighing balance	METTLER TOLEDO (ME 204), Electronic weighing scale
Water Bath	Julabo TW8
Filter	0.22µM syringe filter Himedia
Spectrophotometer	Shimadzu UV Spectrophotometer (UV-1800)
HPLC	Waters

Table 6: Instruments Used

3.2) Methods

Subculturing

Bacterial cultures

i. Four test tubes with 10 ml of MRS broth were prepared and autoclaved at 121°C for 20 mins. The cultures were labelled as C1, C2, C3 and C4.
ii. 100 µl of each culture was inoculated into corresponding labelled test tubes and incubated at 37°C for 24 h.

Yeast

i. Four test tubes with 10 ml of YPD broth were prepared and autoclaved at 121°C for 20 mins. The cultures were labelled were labelled as Y1, Y2, Y3 and Y4.
ii. 100 µl of each culture was inoculated into corresponding test tubes.
iii. Incubated at 30°C for 24 h.

Characterization of cultures

Gram's staining

- A clean grease free slide was taken
- Prepared a smear of bacteria on slide
- Air dried and then heat fixed the smear over flame
- A few drops of crystal violet stain were added on slide and kept for 60 seconds
- Rinsed the slide in distilled water
- A few drops of Gram's iodine were added on the slide and kept for 60 seconds
- Rinsed the slide in distilled water again
- Decolourize with Gram's Decolourizer
- The slides were washed with water
- Counter stained with safranin for 30 second
- Again, washed with distilled water and air dried
- Observed under microscope

Culture collection

i. After 24 hr of incubation, 1ml of each culture was centrifuged at 4000 rpm for 20 min.
ii. Supernatant was removed and pellet was washed twice with Phosphate buffer.
iii. Pellet was dissolved in sterile saline and adjusted to 0.5 McFarland standards.

Tea Preparation and culture inoculation

All steps were carried out under aseptic condition.

- The autoclaved distilled water was boiled for 20 min.
- The 60 g/L sugar and 8 g/L tea were added into the boiled water.
- Then allowed the liquid to cool completely.
- Distributed into glass bottles from laminar hood (each bottle contains 100ml).
- Cultures (C and Y) were added (10^6 cells) in 1:1 ratio.
- Sample was kept as control without inoculation of cultures.
- All bottles were covered with cotton cloth.
- Incubation for 10-15 days at 20°C - 25°C.

	Y1	Y2	Y3	Y4
C1	C1Y1	C1Y2	C1Y3	C1Y4
C2	C2Y1	C2Y2	C2Y3	C2Y4
C3	C3Y1	C3Y2	C3Y3	C3Y4
C4	C4Y1	C4Y2	C4Y3	C4Y4

Table 7: Set 1 with single combination

	Y_1Y_2
C_1	$C_1Y_1Y_2$
C_2	$C_2Y_1Y_2$
C_3	$C_3Y_1Y_2$
C_4	$C_4Y_1Y_2$

Table 8: Set 2 with single bacterial and double yeast combination

	Y_1Y_2	Y_2Y_3	Y_3Y_4	Y_1Y_3	Y_1Y_4
C_1C_2	$C_1C_2Y_1Y_2$	$C_1C_2Y_2Y_3$	$C_1C_2Y_3Y_4$	$C_1C_2Y_1Y_3$	$C_1C_2Y_1Y_4$
C_1C_3	$C_1C_3Y_1Y_2$	$C_1C_3Y_2Y_3$	$C_1C_3Y_3Y_4$	$C_1C_3Y_1Y_3$	$C_1C_3Y_1Y_4$
C_1C_4	$C_1C_4Y_1Y_2$	$C_1C_4Y_2Y_3$	$C_1C_4Y_3Y_4$	$C_1C_4Y_1Y_3$	$C_1C_4Y_1Y_4$
C_2C_3	$C_2C_3Y_1Y_2$	$C_2C_3Y_2Y_3$	$C_2C_3Y_3Y_4$	$C_2C_3Y_1Y_3$	$C_2C_3Y_1Y_4$
C_2C_4	$C_2C_4Y_1Y_2$	$C_2C_4Y_2Y_3$	$C_2C_4Y_3Y_4$	$C_2C_4Y_1Y_3$	$C_2C_4Y_1Y_4$
C_3C_4	$C_3C_4Y_1Y_2$	$C_3C_4Y_2Y_3$	$C_3C_4Y_3Y_4$	$C_3C_4Y_1Y_3$	$C_3C_4Y_1Y_4$

Table 9: Set 3 with two bacterial and two yeast combinations

After 15 days of observation, the Set 1 combination C2Y1 was considered for "SCOBY," collection. This SCOBY inoculated in to tea with KF (fermented fruit). After 7 days of incubation at 25°C, samples were collected for all analytical studies.

Analytical Assays

Samples corresponding to 0, 10 and 15 days of incubation were collected and analysed for pH, titratable acidity, total sugar, reducing sugar and total phenolic content of the samples was estimated.

pH

pH meter is electric instrument that measure the hydrogen ion activity (Acidity or Alkalinity) in a solution. The samples pH was analysed after 10 and 15 days of incubation.

Titratable Acidity

Titratable acidity method was used to determine the acidity of the fermented product. In this method, the acid present in a sample is neutralized using a standard base by using a pH indicator (phenolphthalein).

- 0.1 N Sodium Hydroxide (NaOH): 0.4g of NaOH pellet was dissolved in 100 ml distilled water.
- Phenolphthalein
- 1ml of sample was dispersed in a conical flask and made up into 5ml with distilled water.
- Two drops of phenolphthalein were added and titrated it against 0.1N NaOH. The pale pink colour indicates the end point of the sample.

$$\text{Titratable Acidity} = \frac{\text{Volume (ml) of NaOH} \times \text{Normality of NaOH} \times \text{milli equivalent factor}}{\text{Volume of sample used (ml)}}$$

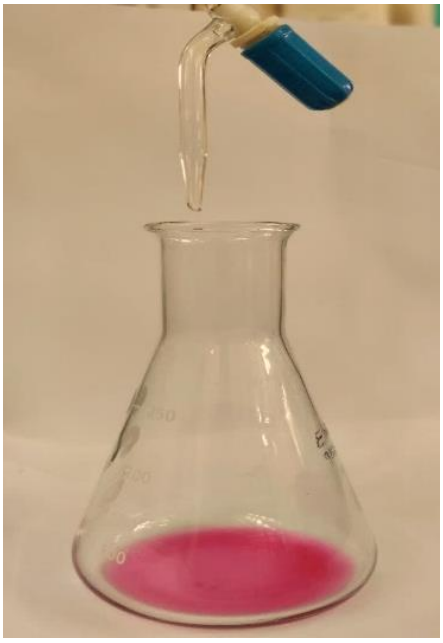


Fig 5: Titration

Estimation of reducing sugar by DNSA method

1g of DNSA was dissolved in 20 ml of 0.1N NaOH with the help of magnetic stirrer. Then 30g of sodium potassium tartrate solution was prepared using distilled water. Slowly sodium potassium tartrate solution was poured in to the DNSA and NaOH solution and the volume made up to 100 ml.

1. Glucose was used as the standard. 1mg/ml of stock solution of glucose was prepared.
2. 50, 100, 150, 200, 250, 300, 350, 400, 450 and 500 µg/ml of concentrations were transferred in 10 test tubes.
3. 1 ml of DNSA reagent was added to each test tube.
4. Kept in boiling water bath for 15 minutes.
5. After cooling OD was recorded at 540 nm in spectrophotometer.
6. The sample used for the study was 20µl.
7. The concentration of reducing sugar in samples was calculated from standard graph using glucose as standard.

SL. No.	Volume of Standard (µl)	Volume of Water (µl)	DNSA reagent (ml)		Optical Density (540nm)
1	50	950	1	**Place in boiling water bath for 15 minutes**	0.13
2	100	900	1		0.35
3	150	850	1		0.484
4	200	800	1		0.683
5	250	750	1		0.87
6	300	700	1		1.076
7	350	650	1		1.265
8	400	600	1		1.452
9	450	550	1		1.624
10	500	500	1		1.823

Table 10: Optical density of glucose at different concentration

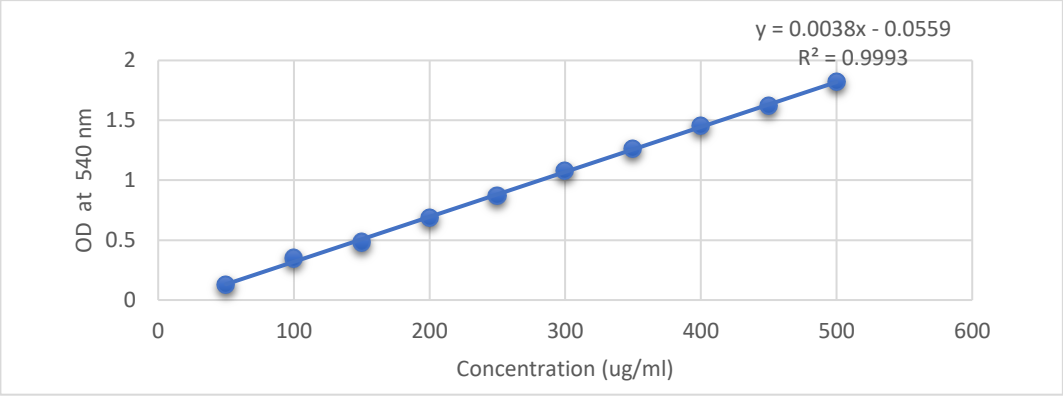


Fig 6: Standard curve of Glucose

Estimation of Total Sugar by Phenol Sulphuric Acid Method

1. Sucrose was used as the standard. 1mg/mL of stock solution of sucrose was prepared.
2. 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100 µg/ml of concentrations were transferred in 10 test tubes.
3. 1 ml of 5% of Phenol was added to each test tube.
4. Then, 5 ml of concentrated Sulphuric Acid was added to each test tube.
5. Kept in cooled water for 20 minutes.
6. After cooling OD was recorded at 490nm in spectrophotometer.
7. The sample used for the study was 2µl (after 5 times dilution)
8. The concentration of total sugar in samples was calculated from standard graph using sucrose as standard.

SL. No.	Volume of Standard (µl)	Volume of Water (µl)	5% Phenol (ml)	Concentrated Sulphuric Acid (ml)	Optical Density (490nm)
1	10	990	1	**5**	0.078
2	20	980	1	**5**	0.191
3	30	970	1	**5**	0.322
4	40	960	1	**5**	0.382
5	50	950	1	**5**	0.504
6	60	940	1	**5**	0.63
7	70	930	1	**5**	0.688
8	80	920	1	**5**	0.834
9	90	910	1	**5**	0.936
10	100	900	1	**5**	1.009

Table 11: Optical density of sucrose at different concentration

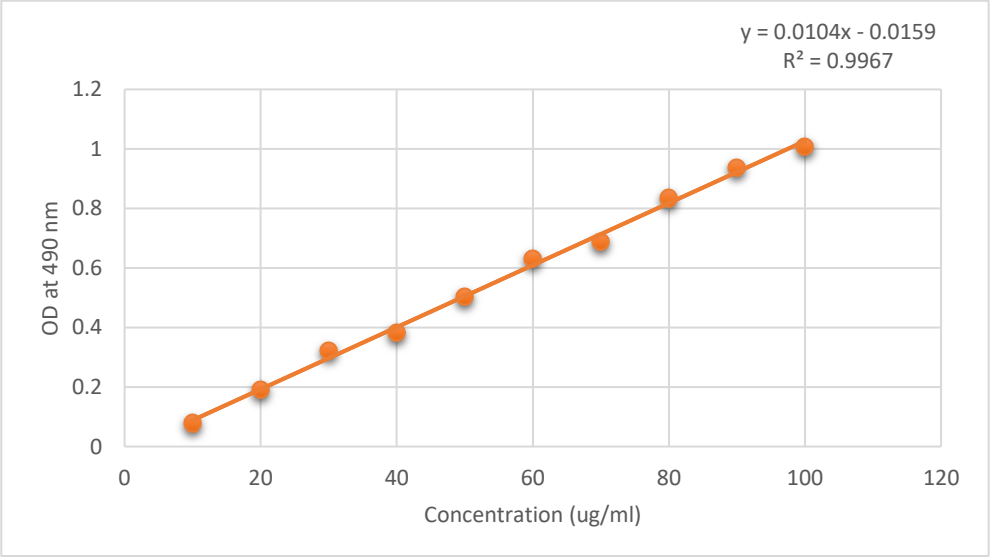


Fig 7: Standard curve of Sucrose

Total Phenolic Content:

FC reagent 1:4 (80:20) for 100 ml, Sodium carbonate 10%, Gallic acid solution 1mg/ml was prepared.

1. Gallic acid was used as the standard. 1mg/ml of stock solution of Gallic acid were prepared
2. 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100µg/ml of concentrations were transferred in 10 test tubes.
3. 1 ml of FC reagent was added to each test tube.
4. Then, 1 ml of 10% Sodium carbonate was added to each test tube.
5. Kept for incubation at dark for 20 minutes
6. After cooling OD was recorded at 760nm in spectrophotometer.
7. The sample used for the study was 100µl (after 15 times dilution)
8. The result expressed in terms of Gallic acid equivalents (GAE)

SO. No.	Volume of Standard (µl)	Volume of Water (µl)	Sodium carbonate (ml)	FC reagent (ml)	Optical Density (760 nm)
1	10	990	1	**1**	0.04
2	20	980	1	**1**	0.08
3	30	970	1	**1**	0.121
4	40	960	1	**1**	0.159
5	50	950	1	**1**	0.210
6	60	940	1	**1**	0.242
7	70	930	1	**1**	0.280
8	80	920	1	**1**	0.325
9	90	910	1	**1**	0.365
10	100	900	1	**1**	0.403

Table 12: Optical density of Gallic acid at different concentration

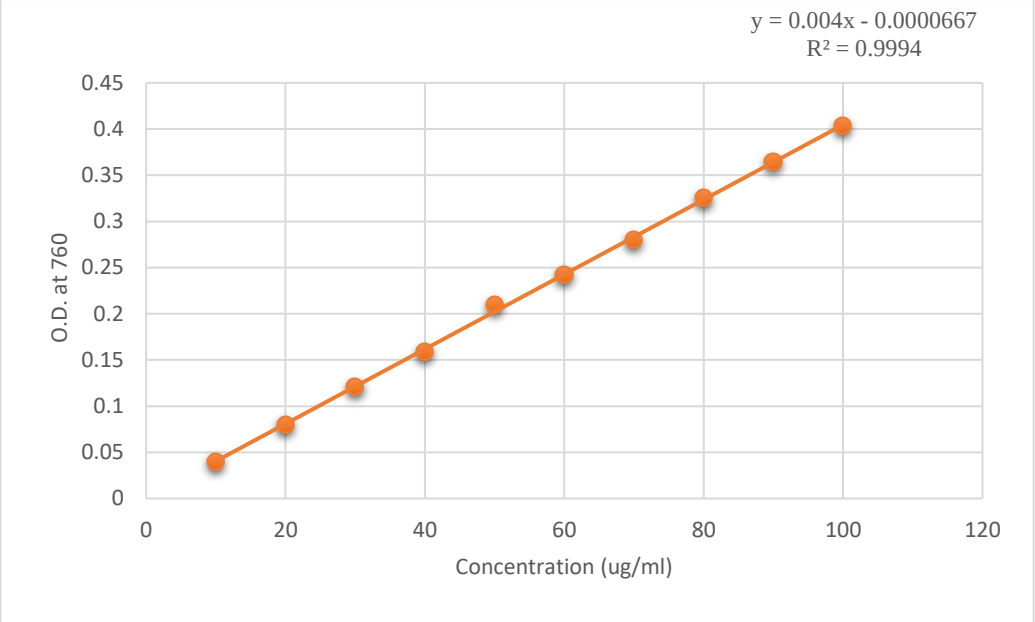


Fig 13: Standard curve of Gallic acid

Sensory evaluation

Sensorial evaluation of fermented samples was done by two untrained panellists. A 9-point system was used for sensorial evaluation. Samples were evaluated in terms of colour, appearance, odour, flavour, taste, sourness, and overall acceptability. Rating Scale: A 9-point hedonic scale (9 = like extremely, 8 = like very much, 7 = like moderately, 6 = like slightly, 5 = neither like nor dislike, 4 = dislike slightly, 3 = dislike moderately, 2 = dislike very much, and 1 = dislike extremely)

High performance liquid chromatography (HPLC)

HPLC analysis of sugars and organic acids was carried out. The samples were filtered through 0.22 µM sterile syringe filter (Himedia). The 20 µl of each sample were injected into the HPLC system. Amino column was used for the analysis of sugars. Mobile phase used was acetonitrile 80:20 with a flow rate of 1 ml/min and running time of 20 min. The column temperature was maintained at 40°C. RID detector was used. The resolution peaks were recorded on the HPLC chart according to the retention time of each compound. The concentrations of organic acids were quantified from standard curves.

HPLC analysis of organic acids was determined how much and which organic acids present. The sample filtered through 0.22µM sterile syringe filter (HiMedia). The 20µl of each sample was injected into the HPLC system. C18 column was used for the analysis of organic acid. The column temperature was maintained at 28°C and the detection was carried out at 210 nm.

PDI detector was used. The resolution peaks were recorded on the HPLC chart according to the retention time of each compound. The concentrations of organic acids were quantified from standard curves.

Fig 9: HPLC System

Results and Discussion

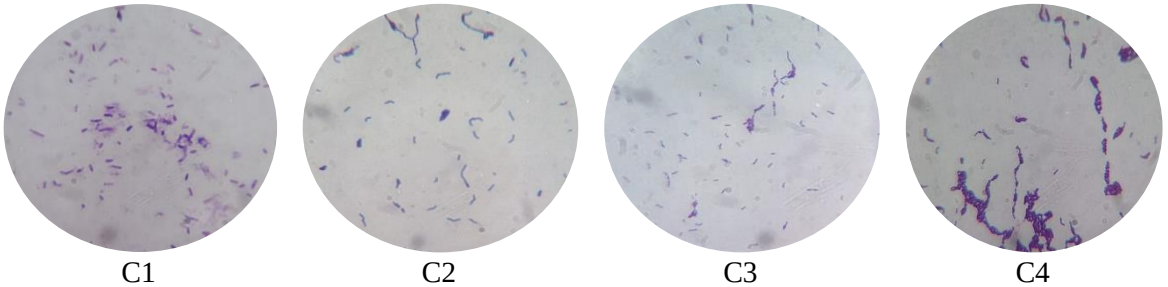
In the study, eight different cultures were selected from CFTRI repository and screened for the formation of "mother culture" called as Symbiotic combination of Bacteria and Yeast (SCOBY) as well as, for the production of the desirable fermented product namely Kombucha. The bacterial cultures were designated as C1, C2, C3 and C4 while the yeast cultures were designated as Y1, Y2, Y3 and Y4. These cultures were characterized for their colony morphology on agar plates and were also Gram stained. The results are presented below:

MORPHOLOGY OF THE BACTERIAL COLONY ON AGAR PLATES

Table 14 gives the colony morphology of the bacterial cultures used in the study. Gram staining results indicated that all the bacterial cultures (C1, C2, C3 and C4) were gram positive and rod shaped. Image 1 presents the microscopic image of the cultures after staining. The gram staining results of yeast cultures (Y1, Y2, Y3 and Y4) is given in Image 2.

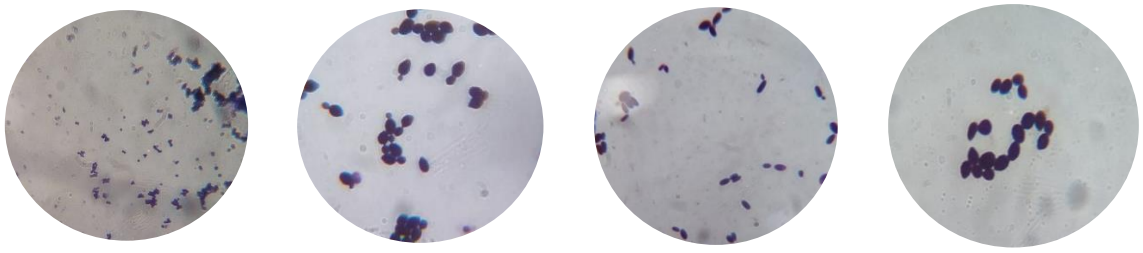
Organism	Size	Shape	Pigmentation	Elevation	Margin	Texture	Gram stain
C1	Small	Circular	Off White	Convex	Smoot, entire	Slimy, moist	Positive, small rod
C2	Small	Ellipsoidal	White	Convex	Smoot, entire	Slimy, moist	Positive, large rod
C3	Small	Circular	White	Convex	Smoot, entire	Slimy, moist	Positive, small rod
C4	Small	Circular	White	Convex	Smoot, entire	Slimy, moist	Positive, small rod

Table 14 gives the colony morphology of the bacterial cultures used.



C1 C2 C3 C4

Fig 10: the bacterial cultures (C1, C2, C3 and C4) gram staining.



Y1 Y2 Y3 Y4

Fig 11: Yeast cultures (Y1, Y2, Y3 and Y4)

Initially steeping of tea was carried out followed by inoculation of the cultures and incubation at 25˚C. 100 ml tea brew was inoculated with bacterial and yeast cultures in three separate set of experiments (Set 1, Set 2 and Set 3). The details of the combinations are given in Materials and Methods. The fermentation broth was monitored for titratable acidity, pH, biomass generation, total sugar as well as reducing sugar concentration along with total phenolic content. Samples were analysed at intervals of 10, 15 and 21 days of incubation for the various microbial combinations tested. Sensory evaluation was also carried out to check for the desired taste in the product. The results of the parameters determined is presented below:

pH

In all tea samples, there was significant difference between the pH levels before and after fermentation.

SET 1: Initially, control (without inoculation) had a pH value of 5.32. During the fermentation, pH value of all samples decreased with time. After 10 days fermentation, among fermented samples, C1Y4 combination indicated the least pH of 3.43 while C2Y3 combination indicated the highest pH. After 15 days of fermentation, out of 16 combinations, nearly 8 samples indicated a decrease in pH up to 3.3. Results are presented in Figure 12.

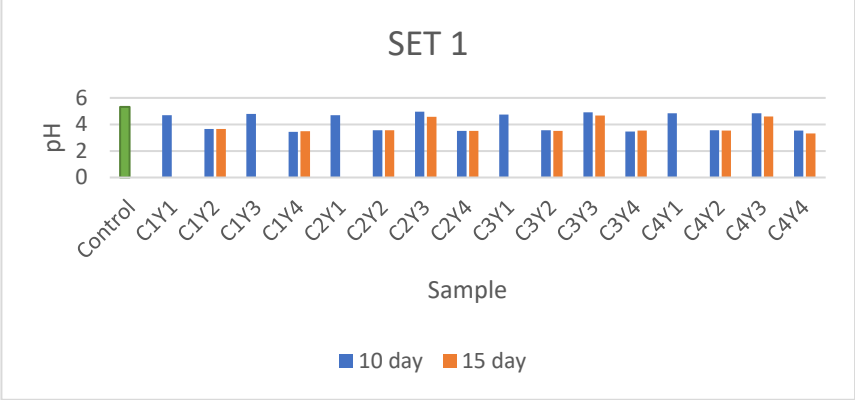


Fig 12: Change in pH of samples during fermentation (SET 1)

In the set 2 combinations, compared to the control, all fermented samples showed a decrease in pH. There was no significant difference in pH between the samples of 10 and15 day incubation time. Results are presented in Figure 13.

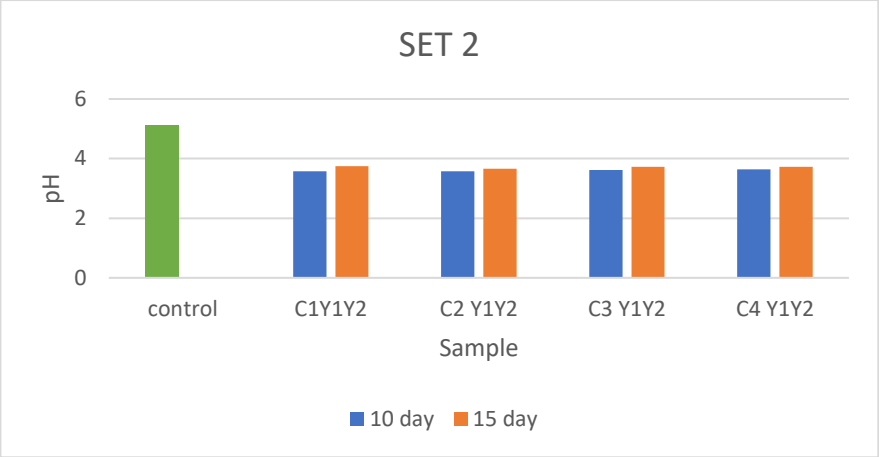


Fig 13: Change in pH of samples during fermentation (SET 2)

SET 3: Compared to the control, all fermented samples showed a decrease in pH. In the fermented samples C1C3Y3Y4, C1C2Y1Y2, C1C4Y2Y3, C3C4Y3Y4, C3C4Y2Y3, C1C4Y2Y3 and C2C3Y1Y4, the pH was in the range of 3.8- 3.15, after 10 days of fermentation. There was no substantial decrease after this period when the samples were analysed on day 15. Results are presented in Figure 14.

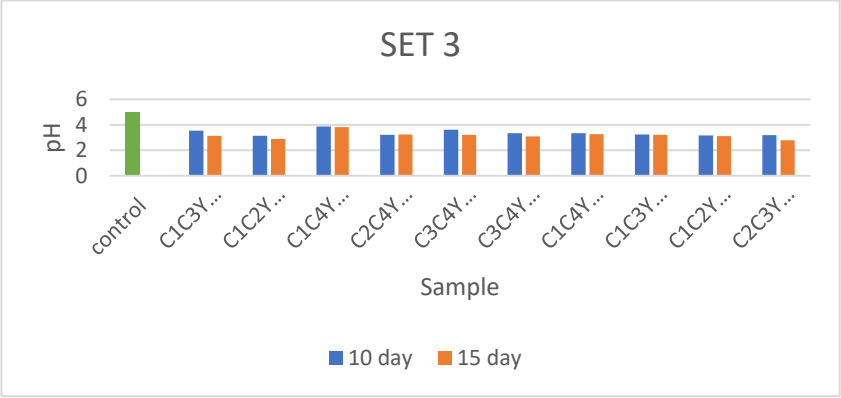


Fig 14: Change in pH of samples during fermentation (SET 3)

Titratable Acidity

In all the samples, there was a significant difference between the titratable acidity before and after fermentation. Initially, the control sample without inoculation had a total acidity of 0.03.

SET 1: After 10 days of fermentation, lowest total acidity among the samples was 0.02. After 15 days there was a significant increase in the total acidity of the samples particularly with the combination of C1Y4, C2Y2, C2Y4, C3Y2, C4Y2 and C4Y4. Results are presented in Figure 15.

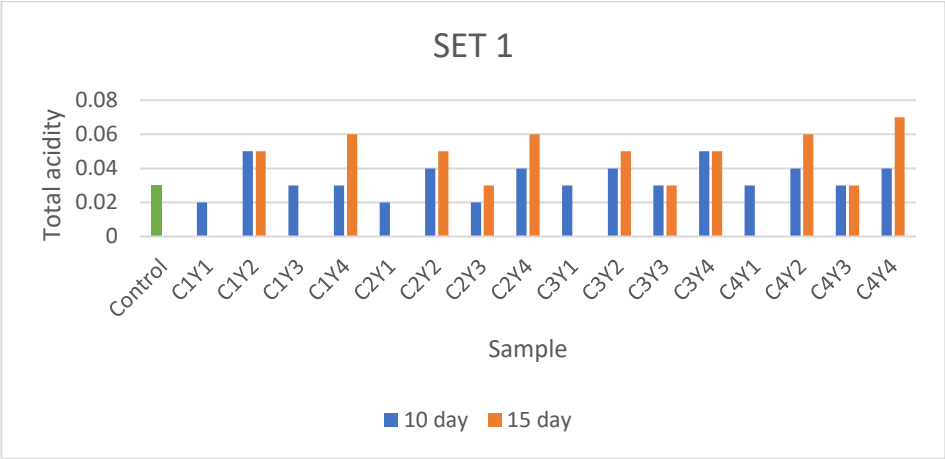


Fig 15: Change in titratable acidity of samples during fermentation (SET 1)

SET 2: After 10 days of fermentation, among the fermented samples, the lowest total acidity was indicated by C1Y1Y2 (0.03). Total acidity increased for both C1Y1Y2 and C2Y1Y2 samples with increase in the number of incubation days. The results are presented in Figure 16.

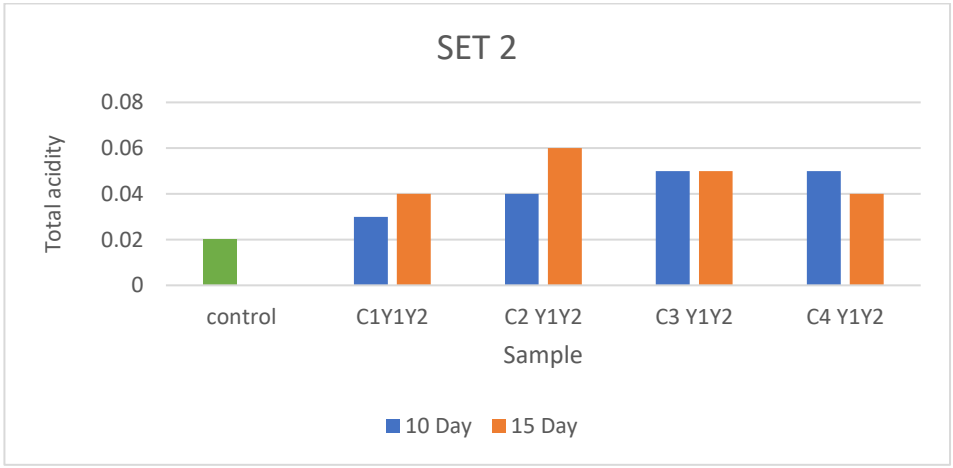


Fig 16: Change in titratable acidity of samples during fermentation (SET 2)

SET 3 Samples C1C3Y3Y4, C1C2Y1Y2, C3C4Y3Y4 and C2C3Y1Y4 showed increase in acidity with increase in number of incubation days. But the samples C1C4Y2Y3 and C1C3Y2Y4 did not showing change in acidic condition when compared to the control. The results are presented in Figure 17.

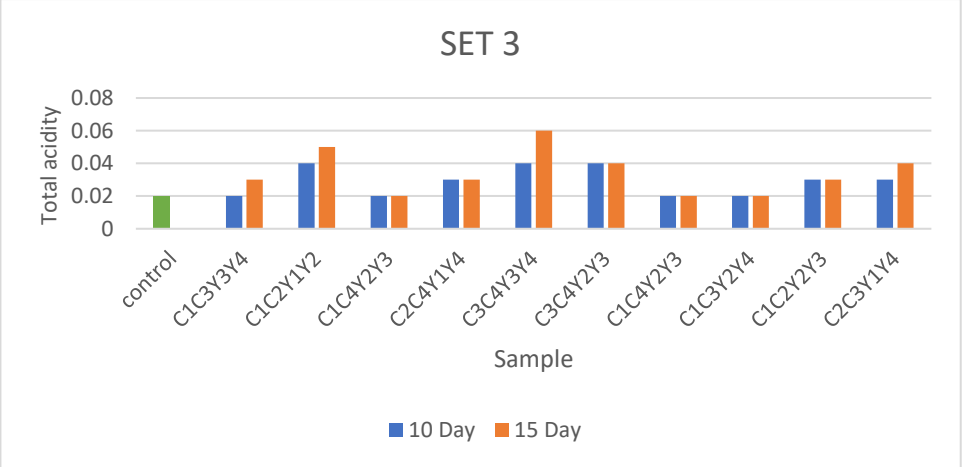


Fig 17: Change in titratable acidity of samples during fermentation (SET 3)

Estimation of reducing sugar by DNSA method

The concentration of sugar added to the tea is an important factor for final acidic fermented product. The organisms utilize sucrose as a substrate and convert it into reducing sugars such as glucose and fructose followed by production of organic acids during the fermentation. The results of the reducing sugar content in the samples over the fermentation period is discussed below:

SET 1: After fermentation, the reducing sugar concentration of all samples increased, indicating the formation of sugars like glucose and fructose after 10 days of fermentation. There was a drastic decrease in the concentration of reducing sugars in all the samples after 15 days of incubation which clearly indicated their utilization to produce organic acids which are the end products of fermentation. Reducing sugar was found to be in the range of 8.5 to 21.3 after 10 days of fermentation while after 15 days of incubation, the range was between 10.3 and 4.3, when evaluated among the samples. The results are presented in Figure 18.

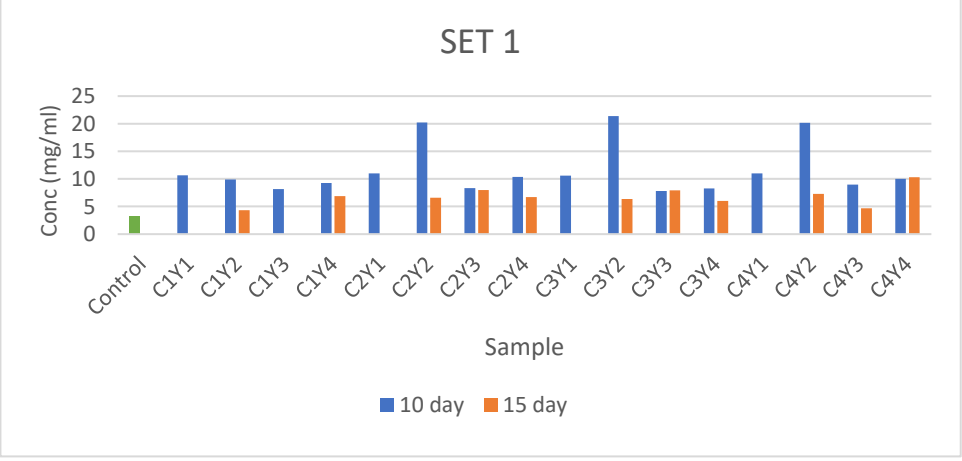


Fig 18: Reducing sugar determination during fermentation (SET 1)

SET 2: All the samples indicated an increase in the concentration of reducing sugar with increase in incubation period. The results are presented in Figure 8. The highest reducing sugar was shown by C2Y1Y2 after 15 days of incubation.

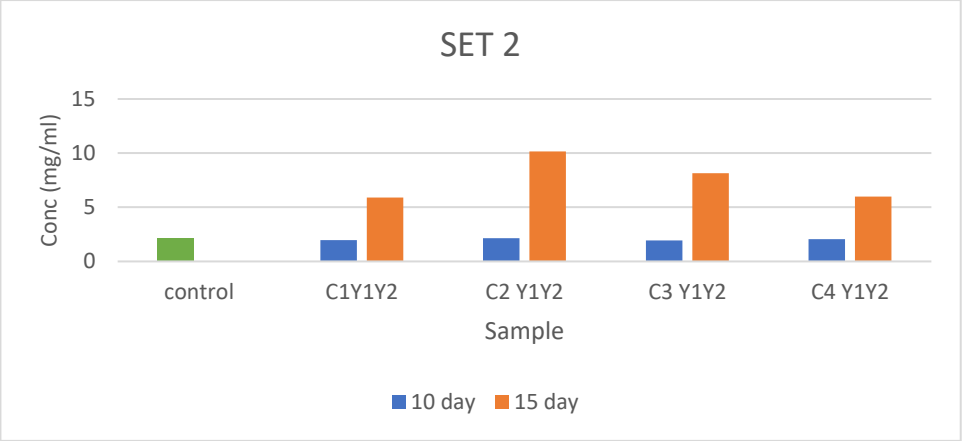


Fig 19: Reducing sugar determination during fermentation (SET 2)

SET 3 The concentration of reducing sugar in samples increased after 10 days of incubation and decreased on further incubation, which is the expected trend. The sample C2C3Y1Y4 indicated the least reducing sugar content (2.05 mg/ml) while C1C4Y2Y3 showed the highest content with 29.8 mg/ml.

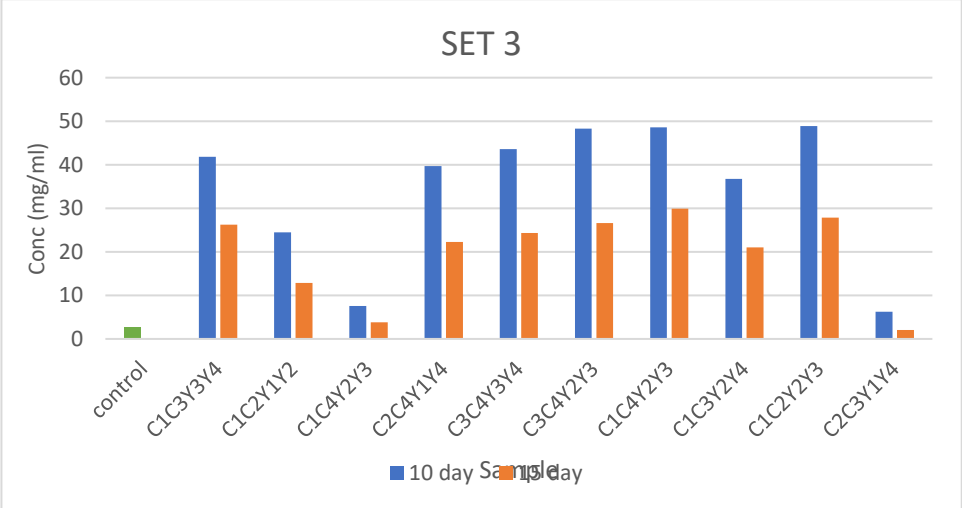


Fig 20: Reducing sugar determination during fermentation of tea (SET 2)

Estimation of total sugar in the fermented samples

The total sugar concentration in the fermented samples was determined by the phenol sulphuric acid method. This evaluation gives an indication regarding how much of the sugar was consumed by the organism before and after fermentation. The residual total sugar content also effects the sensorial properties of the product.

SET 1: Except C1Y1, C1Y2, C2Y1, C3Y1, C4Y1 and C4Y3, all other sample indicated very low total sugar content after 10 days of incubation. After 15 days, the total sugar reduced and was nearly negligible in all the samples except C4Y3. Results are presented in Figure 21.

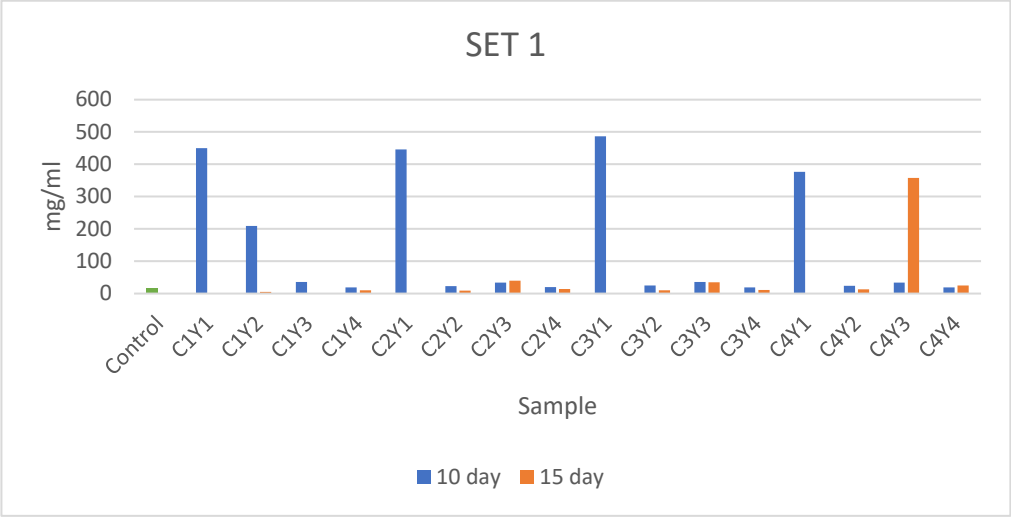


Fig 21: Total sugar determination in fermented tea samples (SET 1)

SET 2: After 15 days fermentation, there was a significant increase of total sugar content in all samples, which was not expected. This indicates that the samples have not undergone complete fermentation converting sugars in to acids. Results are presented in Figure 11.

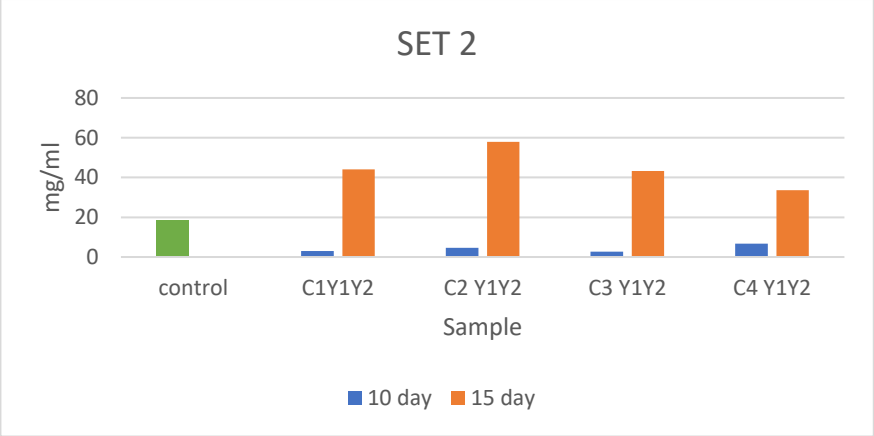


Fig 22: Total sugar determination in fermented tea samples (SET 2)

SET 3: All samples indicated a decrease in total sugar after 15 days of incubation in comparison to 10 days, which is the expected trend.

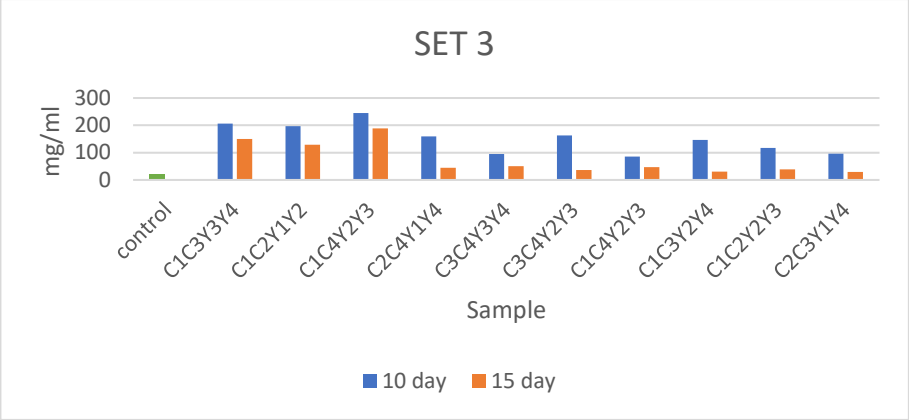


Fig 23: Total sugar determination in fermented tea samples (SET 3)

Sensorial evaluation

The samples were sensorially tested and scores were given out of 10 to grade them and also to determine the extent of fermentation.

Set 1: After 10 days of fermentation, highest total score was given to sample C3Y3 which was also scored high after 15 days.

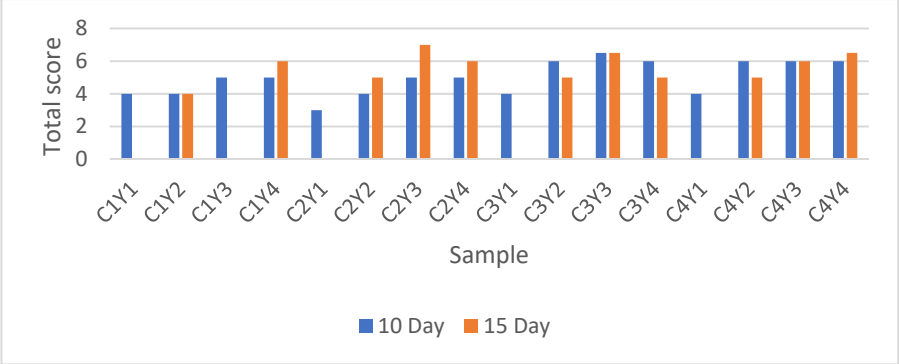


Fig 24: Sensorial evaluation score (SET 1)

SET 2 After 10 and 15 days of fermentation, both the samples C3Y1Y2 and C4Y1Y2 scored the highest.

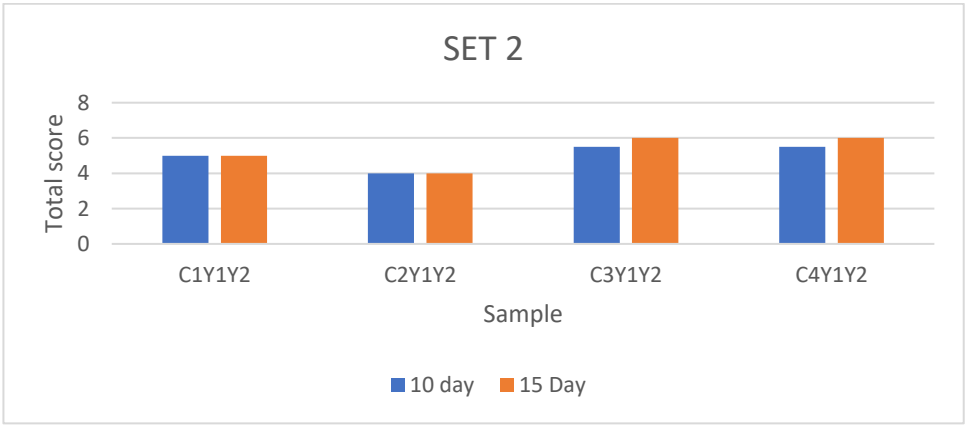


Fig 25: Sensorial evaluation score (Set 2)

SCOBY FORMATION AND CHARACTERIZATION OF THE FERMENTED BREW

Among the three set of samples, the C2Y1Y2 (set 2) was the only combination that resulted in formation of a SCOBY. The SCOBY formation is extremely important during brewing of Kombucha, since it acts as the starter for the next fermentation cycle. The product formed from this SCOBY was also acceptable and sensorially appealing. Therefore, we initiated a fresh brew using the SCOBY formed by C2Y1Y2 and analysed the fermented product for its composition, pre- and post- fermentation. The experiment was carried out in a fresh batch of 500 ml steeped tea, for a period of 10 days. Table below gives the results of the experiment.

Sl. No.	**Parameter**	**Pre-fermentation**	**Post-fermentation**
1	pH	4.35	2.99
2	Total acidity	0.02	0.07
3	Reducing sugar (mg/ml)	1.03	15.19
4	Total sugar (mg/ml)	90.37	60.75
5	Total phenolic content	9.94	7.12

Table 14: Composition of brewed Kombucha (pre- and post- fermentation) using the SCOBY produced from C2Y1Y2.

HPLC was carried out to determine the sugar compounds as well as organic acids present in the fermented tea produced from the SCOBY. Figure 15 below gives the HPLC chromatograms for the sugar compounds present pre- and post- fermentation. Results clearly indicate that sucrose was present in the steeped tea before fermentation which was converted to glucose and fructose after 10 days of fermentation.

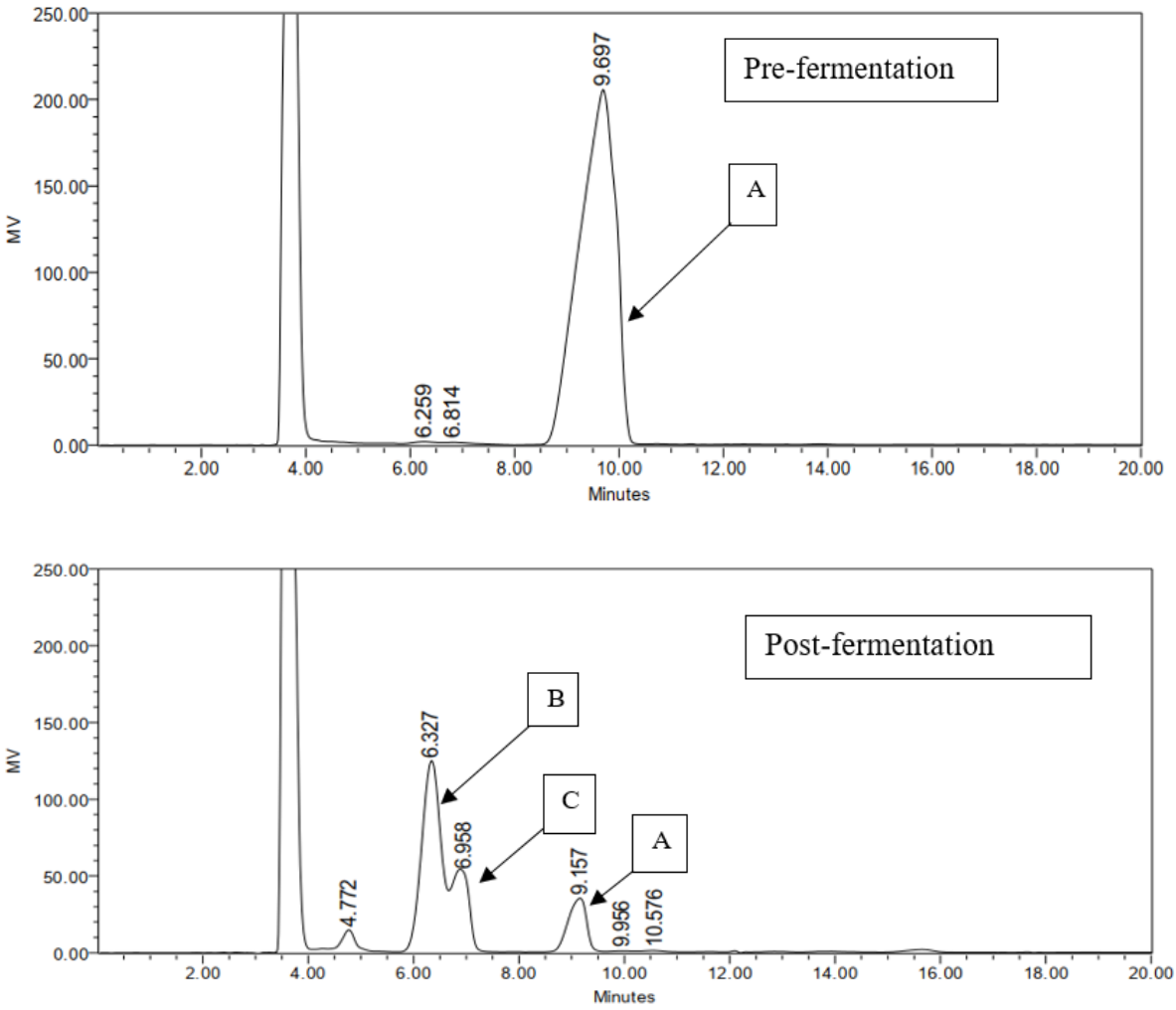


Fig 26: HPLC chromatogram of samples pre- and post- fermentation indicating presence of A) Sucrose B) Glucose C) Fructose

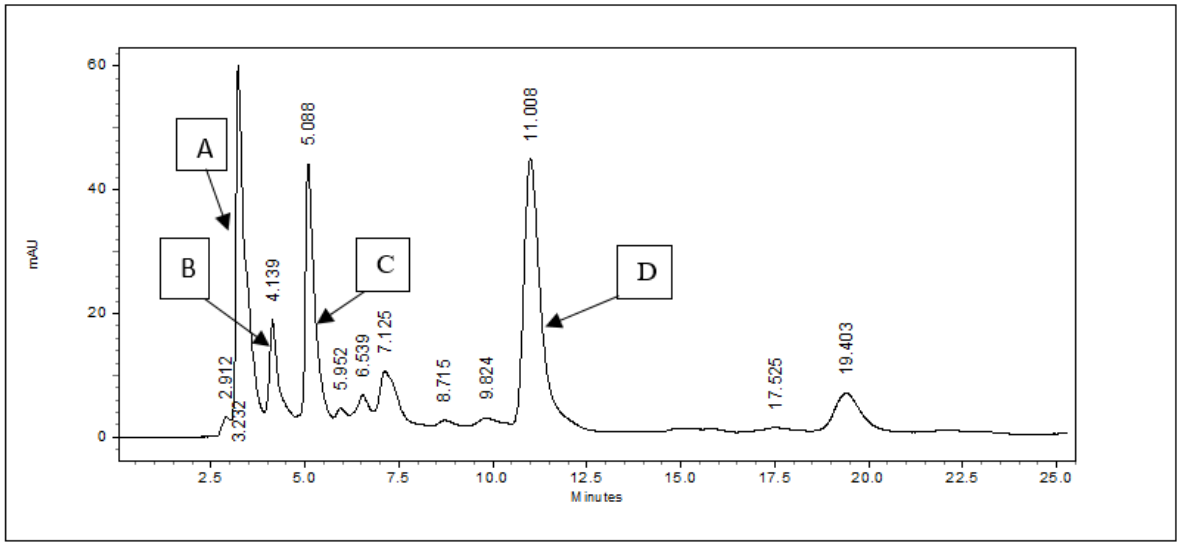


Fig 27: HPLC chromatogram of samples pre- and post- fermentation indicating presence of Organic acids A) Tartaric B) Lactic C) Acetic D) Propionic

CONCLUSION

Kombucha fermentation was investigated using bacterial and yeast cultures selected from CFTRI repository which were used in combination to produce the fermented product. Cultures in different combinations were tested in three separate experimental sets (Set 1, Set 2, Set 3). Different parameters including pH, titratable acidity, reducing sugar, total sugar and total phenolic content were analysed in the study along with sensory evaluation of the fermented brew. Results indicated that only C2Y1Y2 combination was capable of producing SCOBY and resulted in a good product with sweet and tart taste desirous of kombucha tea. Analysis of the desirable product indicated the presence of sucrose, glucose and fructose as the sugar compounds while acetic, lactic, tartaric, and propionic acids were the organic acids present.

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Detection of SARS-COV-2 In Patients Suspected With COVID-19 By Real-Time PCR (RT-PCR)

A Project Report submitted

for the partial fulfilment of the Degree of Master of Science

By

Mrinali Choubisa

[M.Sc. (Microbiology), IV Semester]

Under the supervision of

Dr Shelesh Kumar Swami

Research Scientist – II

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DEPARTMENT OF MICROBIOLOGY

Vigyan Bhawan- Block 'B': New Campus

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CERTIFICATE

This is to certify that the dissertation/project report entitled "Detection of SARS-COV-2 In Patients Suspected With COVID-19 By Real-Time PCR (RT-PCR)" Submitted towards the partial fulfillment for the award of the degree of Master of Science in Microbiology, from Mohanlal Sukhadia University, Udaipur (Rajasthan) India is the result of bonafide work compiled by Mrinali choubisa carried out under the guidance of Dr. Shelesh Kumar Swami, Research Scientist – II at Multi-Disciplinary Research Unit, RNT Medical college, Udaipur under my supervision in the academic year of 2020-2021. It has no part the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

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No. RNT/MDRU/2022/ 173 DATE: 6/1/22

To Whom It May Concern

This is to certify Ms. Mrinali Choubisa, a student of M.Sc. (Microbiology), Mohanlal Sukhadia University, Udaipur has successfully completed her six months training from July 12, 2021 to 12 December 2021. Title of her thesis is "Detection of SARS-COV-2 In Patients Suspected With COVID-19 By Real-Time PCR (RT-PCR)". During this period with us she was found punctual, hardworking and exquisite.

I wish her all the best for her future endeavors.

Dr Shelesh Kumar Swami
Research Scientist – II
Multi – disciplinary Research Unit
RNT Medical College, Udaipur

DECLARATION

I, Mrinali choubisa, student of M.Sc. IV Semester Microbiology (Session 2020-21) here by declare that the project entitled "Detection of SARS-COV-2 In Patients Suspected With COVID-19 By Real-Time PCR (RT-PCR)" Is my own compilation. I have strictly adhered to the guidelines provided by the department for the preparation of the project report.

Dated: 15/01/2022

Mrinali

Signature of the Student

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"Success is like science: If you have the conditions, you get the results"

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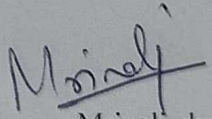

Mrinali choubisa

M.Sc. Microbiology (IV Semester)

TABLE OF CONTENT

S.NO.	Chapter	Page No.
1	Introduction	1-5
2	Review of Literature	6-22
3	Materials and Method	23-28
4	Results and Observation	29-34
5	Discussion	35-36
6	Conclusion	37-38
7	References	39-47

Abbreviations

RNA - Ribonucleic acid

JiSARS-COV-2 - Severe Acute Respiratory Syndrome Corona virus 2

MERS - Middle East Respiratory Syndrome

ACE 2 - Angiotensin Changing over Enzyme 2

kb - Kilobyte

LDT - Laboratory Developed Test

rt-PCR - Real time polymerases chain reaction

RdRp - RNA dependent RNA polymerase

ORF - Open Reading Frame

EUA - Emergency Use authorisation

VoC - Variant of Concern

WHO - World Health Organisation

+ssRNA - Positive Sense Single Stranded RNA

HCoV - Human Corona Virus

VoI - Variants of Interest

ICUs - Intensive Care Unit

CDC - Center for disease control and prevention

BAL - Broncho alveolar lavage

CT - Computed Tomography

INTRODUCTION

Novel coronavirus disease (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) emerged very first in Wuhan, Chinain December 2019(1,2). In late December 2019, ministry of health in Wuhan found many pneumonia cases with unknown cause. Most of these patients had links to the Huanan Seafood Market. During Chinese New Year, billions of Chinese migrant workers travelled back to their hometowns for the new year celebration and before the start of the travel ban on January 23, around five million people had left Wuhan. By the end of January 2020, the number of infections had surged to over ten thousand and later spread rapidly worldwide From Wuhan. World Health Organization declared COVID-19 a public health emergency of international concern on January 30st, 2020, and subsequently, on March 11th, 2020, it was eventually described as a pandemic(3,4).Currently, the number of confirmed cases of COVID-19 reached 275 million and the number of deaths reached 8.28 lakh, across worldwide. India has second highest number of infections in the world with 34,703,644 coronavirus case and 475,888 deaths.

In 2002–03, civets sold for meat in neighborhood markets of China's Yunnan territory conveyed the SARS infection from horseshoe bats to people. The subsequent viral episode killed 774 individuals in 2002–2003. COVID-19 that developed in creatures have as of late been moved to people. The zoological wellspring of these infections is vital to battling this pandemic or others later on. There is as of now generous investigation of SARS (some of the time called SARS-CoV, or SARS-1) that caused an East Asian pandemic 20 years prior. The current pandemic of COVID-19 is likewise called SARS-2, or SARS-CoV-2 in light of the fact that these infections are connected. All the more incidentally, MERS is a comparable illness that shows up infrequently in the Middle East, yet additionally spread in South Korea, with cases somewhere else in Asia, North America, and Europe. 6-8

SARS-CoV-2 belongs to the subfamily Orthocoronavirinae, which is a member of the family Coronaviridae(5).Novel COVID-19 utilizes angiotensin-changing over enzyme [ACE2] receptor to go into have cell by restricting with viral surface spike protein(6). ACE2 is exceptionally communicated in alveolar cells of lung. Most of those fundamentally sick and dead patients neglected to foster extreme clinical appearances inside the beginning phases of the

sickness. COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization. The greater part of patients just showed gentle fever, hack, sore throat, or body hurt. The states of these patients deteriorate out of nowhere in later phases of the disorder. It can cause intense respiratory misery disorder, various organ disappointment and hence demise inside a short time.People with mild symptoms who are otherwise healthy should manage their symptoms at home.On average it takes 5–6 days from when someone is infected with the virus for symptoms to show, however it can take up to 14 days.

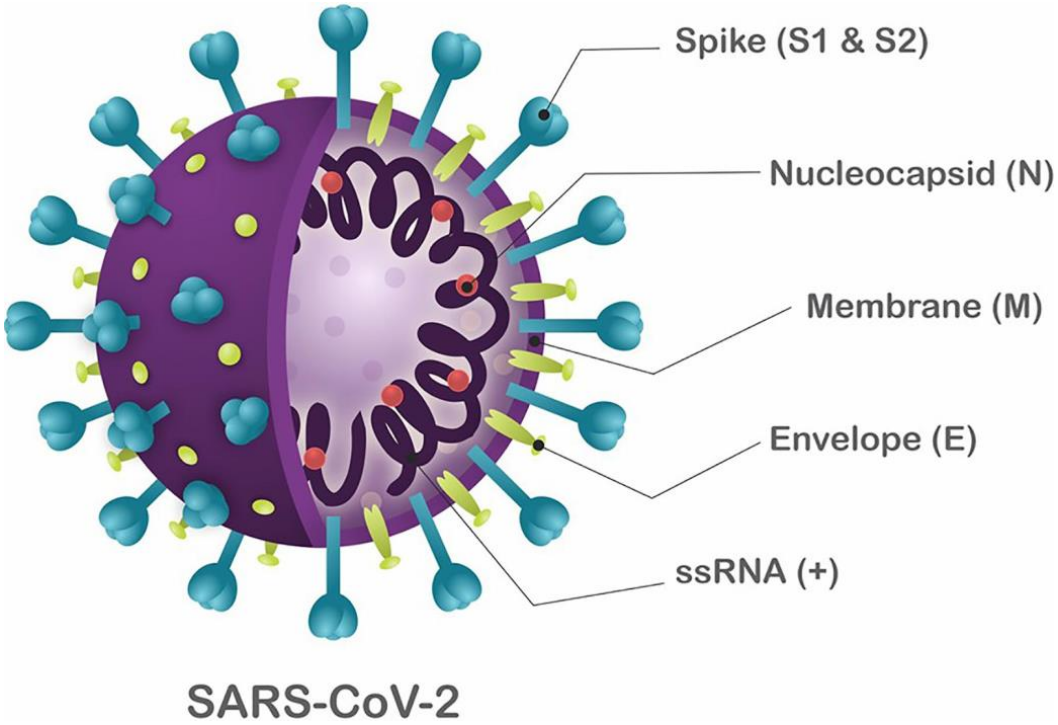

Figure 1: Structure of SARS- CoV-2

This beta coronavirus has a 30-kb genome, sharing 96% sequence identity with the bat coronavirus RaTG13, 88% with bat coronaviruses ZC45 and ZXC21, 80% with SARS-CoV, and 50% with MERS-CoV8. Coronaviruses are enveloped, positive-sense, single-stranded RNA viruses, with at least six open reading frames. The coronavirus genome encodes the structural

glycoproteins spike (S), membrane (M), envelope (E), and nucleocapsid (N)8.

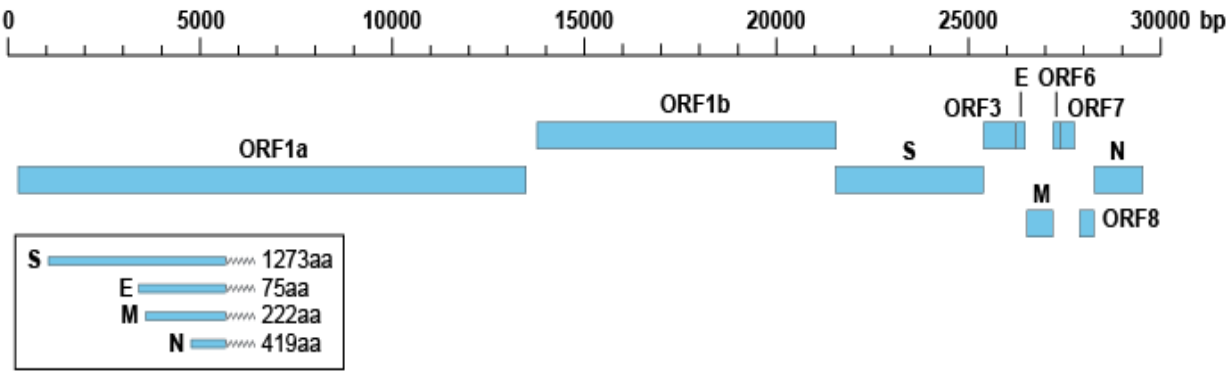

Figure 2: Genome sequence of SARS- CoV-2

Testing facility for COVID-19 is a fundamental part of regulation and procedures, as it permits the proper clinical administration and general wellbeing interventions. With the fast accessibility of genome sequences, laboratory developed tests (LDTs) for the identification of the SARS-CoV-2 were immediately evolved.Real-time reverse transcription polymerase chain reaction (RT-qPCR) is widely used to detect gene expression levels, while also facilitating the rapid diagnosis of acute respiratory viral infections(9). COVID-19 can be diagnosed in the laboratory by detecting SARS-CoV-2 genes in clinical samples collected from suspected patients, followed by viral isolation and culture(10). RT-qPCR is commonly used worldwide to diagnose COVID-19 in the laboratory setting (11,12).An RT-qPCR-based assay for detecting SARS-CoV-2 was first developed at the Charité Institute of Virology in Germany, and introduced by the WHO on January 13, 20209. Additional protocols were subsequently reported by the Chinese Center for Disease Control and Prevention, the University of Hong Kong, and the Centers for Disease Control and Prevention of the United States(13). The assay targets the SARS-CoV-2 RNA-dependent RNA polymerase (RdRp) gene, as well as the E and N genes14. Yet later rRT-PCR technique targets include open reading frame 1 a/b (Orf1a/b) and the gene encoding spike (S) protein. Published protocols differ based on the target genes, primer and probe sequences, mixture composition, amplification conditions, sensitivity, and the requirement for EUA-approved reagents.

In the present study, it is aimed to detect SARS-COV-2 in patients suspected with and without suspected COVID-19 by real-time reverse transcription polymerase chain reaction (RT-PCR). The assay simultaneously targets two viral genes (RdRP and E) and a human gene (RNase P) as

an internal control by using the CFX96 Real-Time PCR instrument (Bio Rad, USA).

REVIEW OF LITERATURE

Coronaviruses are a diverse group of viruses infecting many different animals, and they can cause mild to severe respiratory infections in humans. In 2002 and 2012, respectively, two highly pathogenic coronaviruses with zoonotic origin, severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV), emerged in humans and caused fatal respiratory illness, making emerging coronaviruses a new public health concern in the twenty-first century[1]. At the end of 2019, a novel coronavirus designated as SARS-CoV-2 emerged in the city of Wuhan, China, and caused an outbreak of unusual viral pneumonia. Being highly transmissible, this novel coronavirus disease, also known as coronavirus disease 2019 (COVID-19), has spread fast all over the world[2,3]. It has overwhelmingly surpassed SARS and MERS in terms of both the number of infected people and the spatial range of epidemic areas. The ongoing outbreak of COVID-19 has posed an extraordinary threat to global public health[4,5]. The pandemic has also resulted in the loss of livelihoods due to prolonged shutdowns, which have had a rippling effect on the global economy. Even though substantial progress in clinical research has led to a better understanding of SARS-CoV-2 and the management of COVID-19, limiting the continuing spread of this virus and its variants has become an issue of increasing concern, as SARS-CoV-2 continues to wreak havoc across the world, with many countries enduring a second or third wave of outbreaks of this viral illness attributed mainly due to the emergence of mutant variants of the virus.

Like other RNA viruses, SARS-CoV-2, while adapting to their new human hosts, is prone to genetic evolution with the development of mutations over time, resulting in mutant variants that may have different characteristics than its ancestral strains. Several variants of SARS-CoV-2 have been described during the course of this pandemic, among which only a few are considered variants of concern (VOCs) by the WHO, given their impact on global public health [6].

Etiology

SARS -COV -2 enveloped ,+ssRNA viruses with a crown-like appearance under an electron microscope (*coronam* is the Latin term for crown) due to the presence of spike glycoproteins on

the envelope. The subfamily *Orthocoronavirinae* of the *Coronaviridae* family (order *Nidovirales*) classifies into four genera of CoVs:

- Alphacoronavirus (alphaCoV)
- Betacoronavirus (betaCoV)
- Deltacoronavirus (deltaCoV)
- Gammacoronavirus (gammaCoV)

BetaCoV genus is further divided into five sub-genera or lineages. [1] Genomic characterization has shown that bats and rodents are the probable gene sources of alphaCoVs and betaCoVs. On the contrary, avian species seem to represent the gene sources of deltaCoVs and gammaCoVs. CoVs have become the major pathogens of emerging respiratory disease outbreaks. Members of this large family of viruses can cause respiratory, enteric, hepatic, and neurological diseases in different animal species, including camels, cattle, cats, and bats. For reasons yet to be explained, these viruses can cross species barriers and can cause, in humans, illness ranging from the common cold to more severe diseases such as MERS and SARS. To date, seven human CoVs (HCoVs) capable of infecting humans have been identified. Some of the HCoVs were identified in the mid-1960s, while others were only detected in the new millennium. In general, estimates suggest that 2% of the population are healthy carriers of a CoVs and that these viruses are responsible for about 5% to 10% of acute respiratory infections[2].

- **Common human CoVs**: HCoV-OC43, and HCoV-HKU1 (betaCoVs of the A lineage); HCoV-229E, and HCoV-NL63 (alphaCoVs). These viruses can cause common colds and self-limiting upper respiratory tract infections in immunocompetent individuals. However, in immunocompromised subjects and the elderly, lower respiratory tract infections can occur due to these viruses.
- **Other human CoVs**: SARS-CoV and MERS-CoV (betaCoVs of the B and C lineage, respectively). These viruses are considered to be more virulent and capable of causing epidemics manifesting with respiratory and extra-respiratory manifestations of variable clinical severity.

SARS-CoV-2 is a novel betaCoV belonging to the same subgenus as the severe acute respiratory syndrome coronavirus (SARS-CoV) and the Middle East Respiratory Syndrome Coronavirus (MERS-CoV), which have been previously implicated in SARS-CoV and MERS-CoV epidemics with mortality rates up to 10% and 35%, respectively[3]. It has a round or elliptic and often pleomorphic form and a diameter of approximately 60–140 nm. Like other CoVs, it is sensitive to ultraviolet rays and heat. In this regard, although high temperature decreases the replication of any species of virus. Currently, the inactivation temperature of SARS-CoV-2 is being researched. A stainless steel surface held at an air temperature of 54.5°C (130 °F) results in the inactivation of 90% of SARS-CoV-2 in approximately 36 minutes. At 54.5°C, the time for a 90% decrease in infectivity was 35.4 ± 9.0 min and the virus half-life was 10.8 ± 3.0 min. [4] Conversely, it may resist lower temperatures even below 0°C. Also, these viruses can be effectively inactivated by lipid solvents, including ether (75%), ethanol, chlorine-containing disinfectant, peroxyacetic acid, and chloroform except for chlorhexidine.

Genomic characterization of the new HCoV, isolated from a cluster-patient with atypical pneumonia after visiting Wuhan, had 89% nucleotide identity with bat SARS-like-CoVZXC21 and 82% with that of human SARS-CoV. Hence, it was termed SARS-CoV-2 by experts of the International Committee on Taxonomy of Viruses. The single-stranded RNA genome of SARS-CoV-2 contains 29891 nucleotides, encoding for 9860 amino acids.

Although the origin of SARS-CoV-2 is currently unknown, it is widely postulated to have originated from an animal implicating zoonotic transmission. Genomic analyses suggest that SARS-CoV-2 probably evolved from a strain found in bats. The genomic comparison between the human SARS-CoV-2 sequence and known animal coronaviruses indeed revealed high homology (96%) between the SARS-CoV-2 and the betaCoV RaTG13 of bats (*Rhizomorphs affinis*) [5]Similar to SARS and MERS, it has been hypothesized that SARS-CoV-2 advanced from bats to intermediate hosts such as pangolins and minks, and then to humans. [6][7]A recently released report by the WHO describing the possible origins of SARS-CoV-2 was inconclusive as it did not clearly specify the origin of the virus; however, it did report that the circulation of SARS-CoV-2 occurred as early as December 2019. This report explored several possible hypotheses of the origin of the virus that included the origin of the virus in an animal, the transmission of the virus to an intermediate host, and subsequent passage into humans.

SARS-CoV-2 Variants

As mentioned earlier, SARS-CoV-2 is prone to genetic evolution resulting in multiple variants that may have different characteristics compared to its ancestral strains. Periodic genomic sequencing of viral samples is of fundamental importance, especially in a global pandemic setting, as it helps detect any new genetic variants of SARS-CoV-2. Notably, the genetic evolution was minimal initially with the emergence of the globally dominant D614G variant, which was associated with increased transmissibility but without the ability to cause severe illness. [8] Another variant was identified in humans, attributed to transmission from infected farmed mink in Denmark, which was not associated with increased transmissibility. [7] Since then, multiple variants of SARS-CoV-2 have been described, of which a few are VOCsdue to their potential to cause enhanced transmissibility or virulence, reduction in neutralization by antibodies obtained through natural infection or vaccination, the ability to evade detection, or a decrease in therapeutics or vaccination effectiveness. With the continued emergence of multiple variants, the CDC and the WHO have independently established a classification system for distinguishing the emerging variants of SARS-CoV-2 into variants of concern (VOCs) and variants of interest(VOIs).

SARS-CoV-2 Variants of Concern (VOCs)

- **Alpha (B.1.1.7 lineage)**:- In late December 2020, a new SARS-CoV-2 variant of concern, **B.1.1.7 lineage**, also referred to as **Alpha variant** or **GRY**(formerly GR/501Y.V1), was reported in the UK [9][10]
- **Beta (B.1.351 lineage)**:- Another variant of SARS-CoV-2, **B.1.351** also referred to as **Beta variant** or **GH501Y.V2** with multiple spike mutations, resulted in the second wave of COVID-19 infections, was first detected in South Africa in October 2020. [18]
- **Gamma(P.1 lineage) :-** The third variant of concern, the **P.1 variant** also known as **Gamma variant** or **GR/501Y.V3**, was identified in December 2020 in Brazil and was first detected in the US in January 2021. [22]
- **Delta (B.1.617.2 lineage):-** The fourth variant of concern, B.1.617.2 also referred to as the **Delta variant** was initially identified in December 2020 in India and was responsible for the deadly second wave of COVID-19 infections in April 2021 in India.

Transmission of SARS-CoV-2

- The primary mode of transmission of SARS-CoV-2 is via exposure to respiratory droplets carrying the infectious virus from close contact or droplet transmission from presymptomatic, asymptomatic, or symptomatic individuals harboring the virus.
- Airborne transmission with aerosol-generating procedures has also been implicated in the spread of COVID-19. However, data implicating airborne transmission of SARS-CoV-2 in the absence of aerosol-generating procedures are emerging and being evaluated. However, this mode of transmission has not been universally acknowledged.
- Fomite transmission from contamination of inanimate surfaces with SARS-CoV-2 has been well characterized based on many studies reporting the viability of SARS-CoV-2 on various porous and nonporous surfaces.
- Under experimental conditions, SARS-CoV-2 was noted to be stable on stainless steel and plastic surfaces compared to copper and cardboard surfaces, with the viable virus being detected up to 72 hours after inoculating the surfaces with the virus. [24]
- Viable virus was isolated for up to 28 days at 20 degrees C from nonporous surfaces such as glass, stainless steel. Conversely, recovery of SARS-CoV-2 on porous materials was reduced compared with nonporous surfaces. [25]
- A study evaluating the duration of the viability of the virus on objects and surfaces showed that SARS-CoV-2 can be found on plastic and stainless steel for up to 2-3 days, cardboard for up to 1 day, copper for up to 4 hours. Moreover, it seems that contamination was higher in intensive care units (ICUs) than in general wards, and SARS-CoV-2 can be found on floors, computer mice, trash cans, and sickbed handrails as well as in the air up to 4 meters from patients implicating nosocomial transmission as well in addition to fomite transmission. [26]
- The Centers for Disease Control and Prevention (CDC) recently released an update stating that individuals can be infected with SARS-CoV-2 via contact with surfaces

contaminated by the virus, but the risk is low and is not the main route of transmission of this virus.

- Epidemiologic data from several case studies have reported that patients with SARS-CoV-2 infection have the live virus present in feces implying possible fecal-oral transmission. [27]
- A meta-analysis that included 936 neonates from mothers with COVID-19 showed vertical transmission is possible but occurs in a minority of cases. [28]

Epidemiology

According to the World Health Organization (WHO), the emergence of viral diseases represents a serious public health risk. In the past two decades, several epidemics caused by viruses such as the severe acute respiratory syndrome coronavirus (SARS-CoV) from 2002 to 2003, and H1N1 influenza in 2009, and the Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012 have been described which have had a significant impact on global health. Since being declared a global pandemic by the WHO, SARS-CoV-2, the virus responsible for COVID-19 has spread to 223 countries with more than 275 million confirmed cases, and more than 8.28 lakh deaths reported globally. The U.S. experienced the highest number of SARS-CoV-2 infections and COVID-19 related deaths followed by India. In fact, COVID-19 was the third leading cause of death in the U.S. in 2020 after heart disease and cancer, with approximately 375,000 deaths reported. [29] As of 22 June 2021, the Alpha(B.1.1.7) variant has spread to 170 countries, the Beta (B.1.351) variant has been reported in 119 countries, the Gamma (P.1) variant has been detected in 71 countries and the Delta variant(B.1.617.2) has spread to 85 countries around the world based on the weekly epidemiological update by the WHO. The WHO's current estimate of the global case fatality rate for COVID-19 is 2.2%. However, the case fatality rate is affected by factors that include age, underlying preexisting conditions, and severity of illness and significantly varies between countries.

Pathogenesis of SARS-CoV-2

Structurally and phylogenetically, SARS-CoV-2 is similar to SARS-CoV and MERS-CoV and is composed of four main structural proteins: spike (S), envelope (E) glycoprotein, nucleocapsid (N), membrane (M) protein, along with 16 nonstructural proteins, and 5-8 accessory proteins. [38] The surface spike (S) glycoprotein, which resembles a crown, is located

on the outer surface of the virion and undergoes cleavage into an amino (N)-terminal S1 subunit, which facilitates the incorporation of the virus into the host cell and a carboxyl (C)-terminal S2 subunit containing a fusion peptide, a transmembrane domain, and cytoplasmic domain is responsible for virus-cell membrane fusion. [39] [40] The S1 subunit is further divided into a receptor-binding domain (RBD) and N-terminal domain (NTD), which facilitates viral entry into the host cell and serves as a potential target for neutralization in response to antisera or vaccines. [37]The RBD is a fundamental peptide domain in the pathogenesis of infection as it represents a binding site for the human angiotensin-converting enzyme 2 (ACE2) receptors. Inhibition of the renin-angiotensin-aldosterone system(RAAS), as previously hypothesized, does not increase the risk of hospitalization for COVID-19 and severe disease. [41]

SARS-CoV-2 gains entry into the hosts' cells by binding the SARS-CoV-2 spike or S protein (S1) to the ACE2 receptors abundantly on respiratory epithelium such as type II alveolar epithelial cells. Besides the respiratory epithelium, ACE2 receptors are also expressed by other organs such as the upper esophagus, enterocytes from the ileum, myocardial cells, proximal tubular cells of the kidney, and urothelial cells of the bladder.[42] The viral attachment process is followed by priming the spike protein S2 subunit by the host transmembrane serine protease 2 (TMPRSS2) that facilitates cell entry and subsequent viral replication endocytosis with the assembly of virions. [43]

In summary, the spike RBD allows the binding to the ACE2 receptor in the lungs and other tissues. The spike protein of an amino acid site (polybasic site) allows the functional processing of the same by the human enzyme furin (protease). This process enables the exposure of the fusion sequences and, therefore, the fusion of the viral and cell membranes, a necessary passage for the virus to enter the cell.

Clinical Features

The median incubation period for SARS-CoV-2 is estimated to be 5.1 days, and the majority of patients will develop symptoms within 11.5 days of infection. [73] The clinical spectrum of COVID-19 varies from asymptomatic or paucisymptomatic forms to clinical illness characterized by acute respiratory failure requiring mechanical ventilation, septic shock, and multiple organ failure.

- **Asymptomatic or Presymptomatic Infection**: Individuals with positive SARS-CoV-2 test without any clinical symptoms consistent with COVID-19.
- **Mild illness**: Individuals who have any symptoms of COVID-19 such as fever, cough, sore throat, malaise, headache, muscle pain, nausea, vomiting, diarrhea, anosmia, or dysgeusia but without shortness of breath or abnormal chest imaging
- **Moderate illness**: Individuals who have clinical symptoms or radiologic evidence of lower respiratory tract disease and who have oxygen saturation (SpO2) ≥ 94% on room air
- **Severe illness**: Individuals who have (SpO2) ≤ 94% on room air; a ratio of partial pressure of arterial oxygen to fraction of inspired oxygen, (PaO2/FiO2) <300 with marked tachypnea with respiratory frequency >30 breaths/min or lung infiltrates >50%.
- **Critical illness**: Individuals who have acute respiratory failure, septic shock, and/or multiple organ dysfunction. Patients with severe COVID-19 illness may become critically ill with the development of acute respiratory distress syndrome (ARDS) which tends to occur approximately one week after the onset of symptoms.

Diagnosis

Molecular Testing

- The standard diagnostic mode of testing is testing a nasopharyngeal swab for SARS-CoV-2 nucleic acid using a real-time PCR assay. Commercial PCR assays have been validated by the US Food and Drug Administration (FDA) with emergency use authorizations (EUAs) for the qualitative detection of nucleic acid from SARS-CoV-2 from specimens obtained from nasopharyngeal swabs as well as other sites such as oropharyngeal, anterior/mid-turbinate nasal swabs, nasopharyngeal aspirates, bronchoalveolar lavage (BAL) and saliva. The collection of BAL samples should only be performed in mechanically ventilated patients as lower respiratory tract samples seem to remain positive for a more extended period.
- The sensitivity of PCR testing is dependent on multiple factors that include the adequacy of the specimen, technical specimen collection, time from exposure, and specimen

source. [90]However, the specificity of most commercial FDA-approved SARS-CoV-2 PCR assays is nearly 100%, provided that there is no cross-contamination during specimen processing.

- SARS-CoV-2 antigen tests are less sensitive but have a faster turnaround time compared to molecular PCR testing. [91] Comprehensive testing for other respiratory viral pathogens should be considered for appropriate patients as well.

Serology Testing

- An antibody test can evaluate for the presence of antibodies that occurs as a result of infection. Antibody tests play an important role in broad-based surveillance of COVID-19, and many commercial manufactured antibody testing kits are available to evaluate the presence of antibodies against SARS-CoV-2 are available.

- Despite the numerous antibody tests designed to date, serologic testing has limitations in specificity and sensitivity, and results from different tests vary. However, an antibody test with a specificity higher than 99% and a sensitivity of 96% has been developed, which can identify past SARS-CoV-2 infection.

- Antibody testing may be instrumental in broad-based surveillance of COVID-19 and evaluate the immunity conferred from infection or vaccination. There is currently ongoing research to determine quantitative and qualitative aspects of antibodies regarding protection from future SARS-CoV-2 infection and the duration of the protection.

Other Laboratory Assessment

- Complete blood count (CBC), a comprehensive metabolic panel (CMP) that includes testing for renal and liver function, and a coagulation panel should be performed in all hospitalized patients.

- Additional tests such as testing for inflammatory markers such as ESR, C-reactive protein (CRP), ferritin, lactate dehydrogenase, D-dimer, and procalcitonin can be considered in hospitalized patients. However, their prognostic significance in COVID-19 is not clear.

Imaging studies

Considering this viral illness commonly manifests itself as pneumonia, radiological imaging has a fundamental role in the diagnostic process, management, and follow-up. Imaging studies may include chest x-ray, lung ultrasound, or chest computed tomography (CT). There are no guidelines available regarding the timing and choice of pulmonary imaging studies in patients with COVID-19, and the type of imaging should be considered based on clinical evaluation.

(1) Chest X-ray

- Standard radiographic examination (X-ray) of the chest has a low sensitivity in identifying early lung changes; it can be completely normal in the initial stages of the disease.
- In the more advanced stages of infection, the chest X-ray examination commonly shows bilateral multifocal alveolar opacities, which tend to confluence up to the complete opacity of the lung. Pleural effusion can also be demonstrated.

(2) Chest Computed Tomography (CT)

- The American College of Radiology recommends against Chest CT's routine use as an initial imaging study or screening.
- Given its high sensitivity, chest computed tomography (CT), particularly high-resolution CT (HRCT), is the diagnostic method of choice in evaluating COVID-19 pneumonia, particularly when associated with disease progression.
- Several non-specific findings and radiologic patterns can be found on Chest CT. Most of these findings may also be observed in other lung infections, such as Influenza A (H1N1), CMV, SARS, MERS, streptococcus, and Chlamydia, Mycoplasma.

Treatment

Treatment is essentially supportive and symptomatic.The first step is to ensure adequate isolation (discussed later) to prevent transmission to other contacts, patients and healthcare workers. Mild illness should be managed at home with counseling about danger signs. The usual principles are maintaining hydration and nutrition and controlling fever and cough. Routine use of antibiotics and antivirals such as oseltamivir should be avoided in confirmed cases. In hypoxic patients, provision of oxygen through nasal prongs, face mask, high flow nasal cannula (HFNC)

or non-invasive ventilation is indicated. Mechanical ventilation and even extra corporeal membrane oxygen support may be needed. Renal replacement therapy may be needed in some. Antibiotics and antifungals are required if co-infections are suspected or proven. The role of corticosteroids is unproven; while current international consensus and WHO advocate against their use, Chinese guidelines do recommend short term therapy with low-to-moderate dose corticosteroids in COVID-19 ARDS. [24] [25] Detailed guidelines for critical care management for COVID-19 have been published by the WHO [26]. There is, as of now, no approved treatment for COVID-19. Antiviral drugs such as ribavirin, lopinavir-ritonavir have been used based on the experience with SARS and MERS. In a historical control study in patients with SARS, patients treated with lopinavir-ritonavir with ribavirin had better outcomes as compared to those given ribavirin alone. [15]

There is anecdotal experience with use of remdeswir, a broad spectrum anti RNA drug developed for Ebola in management of COVID-19 [27]. More evidence is needed before these drugs are recommended. Other drugs proposed for therapy are arbidol (an antiviral drug available in Russia and China), intravenous immunoglobulin, interferons, chloroquine and plasma of patients recovered from COVID-19 [21] [28] [29]. Additionally, recommendations about using traditional Chinese herbs find place in the Chinese guidelines [21].

Prevention

Since at this time there are no approved treatments for this infection, prevention is crucial. Several properties of this virus make prevention difficult namely, non-specific features of the disease, the infectivity even before onset of symptoms in the incubation period, transmission from asymptomatic people, long incubation period, tropism for mucosal surfaces such as the conjunctiva, prolonged duration of the illness and transmission even after clinical recovery.

Isolation of confirmed or suspected cases with mild illness at home is recommended. The ventilation at home should be good with sunlight to allow for destruction of virus. Patients should be asked to wear a simple surgical mask and practice cough hygiene. Caregivers should be asked to wear a surgical mask when in the same room as patient and use hand hygiene every 15–20 min.

The greatest risk in COVID-19 is transmission to healthcare workers. [31] In the SARS outbreak of 2002, 21% of those affected were healthcare workers. Till date, almost 1500

healthcare workers in China have been infected with 6 deaths. The doctor who first warned about the virus has died too. It is important to protect healthcare workers to ensure continuity of care and to prevent transmission of infection to other patients. While COVID-19 transmits as a droplet pathogen and is placed in Category B of infectious agents (highly pathogenic H5N1 and SARS), by the China National Health Commission, infection control measures recommended are those for category A agents (cholera, plague). Patients should be placed in separate rooms or cohorted together. Negative pressure rooms are not generally needed. The rooms and surfaces and equipment should undergo regular decontamination preferably with sodium hypochlorite. Healthcare workers should be provided with fit tested N95 respirators and protective suits and goggles. Airborne transmission precautions should be taken during aerosol generating procedures such as intubation, suction and tracheostomies. All contacts including healthcare workers should be monitored for development of symptoms of COVID-19. Patients can be discharged from isolation once they are afebrile for atleast 3 d and have two consecutive negative molecular tests at 1 d sampling interval. This recommendation is different from pandemic flu where patients were asked to resume work/school once afebrile for 24 h or by day 7 of illness. Negative molecular tests were not a prerequisite for discharge.

At the community level, people should be asked to avoid crowded areas and postpone non-essential travel to places with ongoing transmission. They should be asked to practice cough hygiene by coughing in sleeve/ tissue rather than hands and practice hand hygiene frequently every 15–20 min. Patients with respiratory symptoms should be asked to use surgical masks. The use of mask by healthy people in public places has not shown to protect against respiratory viral infections and is currently not recommended by WHO. However, in China, the public has been asked to wear masks in public and especially in crowded places and large scale gatherings are prohibited (entertainment parks etc). China is also considering introducing legislation to prohibit selling and trading of wild animals . [32]

Currently available vaccines

Covaxin: Covaxin (codenamed as BBV152) is an inactivated virus-based COVID-19 vaccine developed by Bharat Biotech in collaboration with the Indian Council of Medical Research - National Institute of Virology. As of November 2021, more than 115.0 million people in India have received Covaxin. On 3 November 2021, the World Health Organization (WHO) validated the vaccine for emergency use.

Covishield: The Oxford–AstraZeneca COVID-19 vaccine, codenamed AZD1222, [5] and sold under the brand names Covishield[22] and Vaxzevria[1] [23] among others, is a viral vector vaccine for prevention of COVID-19. Developed in the United Kingdom by the Oxford University and British-Swedish company AstraZeneca,[24][25][26] using as a vector the modified chimpanzee adenovirus ChAdOx1[27]. Thevaccine is given by intramuscular injection.

Moderna: The Moderna COVID- 19 vaccine, codenamed mRNA-1273 and sold under the brand name Spikevax[2], is a COVID-19 vaccine developed by American company Moderna, the United States National Institute of Allergy and Infectious Diseases (NIAID), and the Biomedical Advanced Research and Development Authority (BARDA). It is designed to be administered as two or three 0.5 mL doses given by intramuscular injection at an interval of at least 28 days apart.[23][27][28][29] It is an RNA vaccine composed of nucleoside-modified mRNA (modRNA) encoding a spike protein of SARS-CoV-2, which is encapsulated in lipid nanoparticles. [30]. It is authorized for use at some level in many countries. [31] [32] [33] [34]

Pfizer–BioNTech: The Pfizer–BioNTech COVID-19 vaccine,sold under the brand name Comirnaty,[1][18]is an mRNA-based COVID-19 vaccine developed by the German biotechnology company BioNTech and for its development collaborated with American company Pfizer, for support with clinical trials, logistics, and manufacturing.[25][26] The vaccine is given by intramuscular injection. It is composed of nucleoside-modified mRNA (modRNA) encoding a mutated form of the full-length spike protein of SARS-CoV-2, which is encapsulated in lipid nanoparticles. [31]

Sputnik V: Sputnik V (Russian: Спутник V, brand name from RDIF) or Gam-COVID-Vac (Russian: Гам-КОВИД-Вак, the real name of the vaccine under which it is registered and produced[3]) is an adenovirus viral vector vaccine for COVID-19 developed by the Gamaleya Research Institute of Epidemiology and Microbiology in Russia.

Janssen: The Janssen COVID-19 vaccine[240] is a viral vector vaccine produced by Janssen Pharmaceutica (a subsidiary of Johnson & Johnson) and Beth Israel Deaconess Medical Center. [242][243] It is also known as Johnson & Johnson COVID-19 Vaccine and as COVID-19 Vaccine Janssen. [244]It is only offered for those aged 65 and over because of a very rare risk of thrombosis in younger age groups. [248] [249] [250]

Sputnik Light: Sputnik Light is a single dose COVID-19 vaccine developed by the Gamaleya Research Institute of Epidemiology and Microbiology. [2]

CoronaVac: CoronaVac, also known as the Sinovac COVID-19 vaccine, [3] is an inactivated virus COVID-19 vaccine developed by the Chinese company Sinovac Biotech.

Kiran Munne*et al* stated that RT-PCR is considered the gold standard for COVID-19 detection. The utility of this test is limited by several false positive, false negative and inconclusive results at early stages of infection, scarcity of reagents and lack of well-equipped labs including trained staff. Moreover, appropriate sample collection and transport, standard laboratory protocols, stringent quality control norms, good quality RNA extraction kits, PCR kits with suitable primers can help in improving accuracy of the test results. A careful assessment of clinical, radiological and molecular findings is required for identifying potential cases of COVID-19.

EminEdizTutuncu*et al*performed a cohort study to validate the use of saliva for SARS-CoV-2 detection in mildly symptomatic and asymptomatic patients with a confirmed diagnosis of Covid-19. Saliva samples of the patients were analyzed by reverse-transcriptase polymerase chain reaction (RT-PCR).28 asymptomatic and 25 mildly symptomatic patients were enrolled in the study. The median age was 37 years (range 4-70). None of the patients had a fever on presentation. Among 53 patients with SARS-CoV-2 detected in the nasopharyngeal sample, the real-time RT-PCR was positive in the saliva specimens in 48 (90.56%) patients. The mean cycle threshold (CT) values for nasopharyngeal and saliva specimens (27.80 ± 3.44 and 30.64 ± 2.83, respectively) were significantly correlated between the two sample types ($p = .016$). The mean CT values of nasopharyngeal and saliva samples in mildly symptomatic and asymptomatic patients (27.18 ± 3.53 and 30.24 ± 3.29 vs. 28.36 ± 3.31 and 30.98 ± 2.39, respectively) were not significantly different ($p = .236$ and $p = .733$, respectively).

Mohan Rao*et al* reported that 65 of 562 (28.1%) candidates tested positive for COVID-19 based on random saliva, NP + OP swabs, or both testing techniques. The detection rate of SARS-CoV-2 was higher in random saliva compared to NP + OP testing (92.3%; 60/65 vs. 73.8%; 48/65; $p < .05$). The estimated sensitivity and specificity of random saliva were higher than NP + OP swabs (95.0; 99.9 vs. 72.2; 99.4). The Ct values of ORF1a and N genes were significantly lower in random saliva compared to NP + OP swabs specimens. their findings demonstrated that random saliva is an alternative diagnostic specimen for the detection of SARS-CoV-2. Self-collected random oropharyngeal saliva is a valuable specimen that provides accurate SARS-CoV-2 surveillance testing of a community.

Lee*et al*systematically reviewed the literature to understand the performance of alternative sample types compared to NP swabs by searching PubMed, Google Scholar, medRxiv, and bioRxiv (last retrieval 1 October 2020) for comparative studies of alternative specimen types (saliva, oropharyngeal [OP], and nasal [NS] swabs) versus NP swabs for SARS-CoV-2 diagnosis using nucleic acid amplification testing (NAAT). A logistic-normal random-effects meta-analysis was performed to calculate % positive alternative-specimen, % positive NP, and % dual positives overall and in subgroups. The QUADAS 2 tool was used to assess bias. From 1,253 unique citations, they identified 25 saliva, 11 NS, 6 OP, and 4 OP/NS studies meeting inclusion criteria. Three specimen types captured lower % positives (NS [82%, 95% CI: 73 to 90%], OP [84%, 95% CI: 57 to 100%], and saliva [88%, 95% CI: 81 to 93%]) than NP swabs, while combined OP/NS matched NP performance (97%, 95% CI: 90 to 100%). Absence of RNA extraction (saliva) and utilization of a more sensitive NAAT (NS) substantially decreased alternative-specimen yield of positive samples. NP swabs remain the gold standard for diagnosis of SARS-CoV-2, although alternative specimens are promising. Much remains unknown about the impact of variations in specimen collection, processing protocols, and population (pediatric versus adult, late versus early in disease course), such that head-to head studies of sampling strategies are urgently needed.

Yoon-Seok Chung*et al*validated the sensitivity, specificity, precision, linearity, accuracy, and robustness of the RT-qPCR assay for SARS-CoV-2 detection and compared its performance with that of several EUA-approved kits. Their RT-qPCR assay was highly specific for SARS-CoV-2 as demonstrated by not amplifying 13 other viruses that cause respiratory diseases. The assay showed high linearity using a viral isolate from a patient with known COVID-19 as well as plasmids containing target SARS-CoV-2 genes as templates. The assay showed good repeatability and reproducibility with a coefficient of variation of 3%, and a SARS-CoV-2 limit of detection of 1 PFU/mL. The RT-qPCR-based assay is highly effective and can facilitate the early diagnosis of COVID-19 without the use of EUA-approved kits or reagents in the Republic of Korea.

Jason J LeBlanc*et al*compared laboratory-developed tests (LDTs) used for the detection of SARS-CoV-2 in Canadian hospital and public health laboratories, and some commercially available real-time RT-PCR assays and found that overall, analytical sensitivities were equivalent between LDTs and most commercially available methods.

Ben-Ami *et al*demonstrated pooling strategies which increase testing throughput while maintaining high sensitivity. A comparison of 184 samples tested individually and in pools of eight samples showed that test results were not significantly affected. Implementing the eight-sample Dorfman pooling to test 26 576 samples from asymptomatic individuals, they identified 31 (0.12%) SARS-CoV-2 positive samples, achieving a 7.3-fold increase in throughput.

MATERIALS & METHODS

3.1 Materials

(A) Equipments

- Refrigerated micro centrifuge (Thermofisher, U.S.A.)
- RT-PCR (Bio Rad, USA)
- Biosafety cabinet – II B2 Type (Thermofisher, USA)
- Non-refrigerated centrifuge (Eppendorf, Germany)
- Vortex (Genetix Biotech Asia Pvt Ltd, India)
- Micropipettes: 10, 100, 200 and 1000 µl capacity (Eppendorf, USA)
- Deep Freeze (-20°C) – (Vestfrost Solutions, India)

(B) Plasticware

- VTM solution vial (Sanli Medical, China)
- 1.5 ml Micro centrifuge tubes (Axygen, India Ltd)
- Micropipette tips (Axygen, India Ltd.)
- 96-well plates (Applied Biosystems)
- Optical film sealer (Applied Biosystems).

(C) Chemicals And Kits

- RNA isolation Kit (Huwel Lifesciences Pvt Ltd, India)
- COVID-19 Real Time PCR kit (COVISure, Genetix Biotech Asia Pvt Ltd, New Delhi)

3.2 Methodology

(A) Sample collection

For initial diagnostic testing for COVID-19, Nasopharyngeal and oropharyngeal swab samples were collected from 24 individuals. Samples were collected into approved VTM solution and subsequently, refrigerated at 2-8° C and shipped to the laboratory on ice packs. (Note:- If samples will not arrive to the laboratory within 72 hours of collection, they must be stored frozen at -70° C and shipped on dry ice.)

(B) RNA Extraction

Huwel Nucleic Acid Extraction Kit (Huwel Life sciences Pvt. Ltd., India) was used to extract RNA from SARS CoV-2. It has ready to use reagents for the isolation of RNA. Following protocol was used to isolate RNA from samples:

i. 200 µl of VTM samples was taken into microfuge tube and subsequently 500 µl of Huwel lysis buffer and 5 µl Poly A was added.
ii. The contents were vortexed for 5 sec and incubated at room temperature for 20 mins.
iii. This mixture was transferred to spincolumnwith collection tube and centrifuged the tube at 8000 rpm for 1 min.
iv. Collection tube was changed and 500µl of wash buffer 1 was added to the spin column and centrifuged for 1 min at 8000rpm.
v. Again, collection tube was changed and 500µl of wash buffer 2 was added to the spin column and centrifuged for 1 min at 8000rpm.
vi. Again, collection tube was changed and empty spin was given.
vii. The spin columnwas placed in a new microtube tube and the old collection tubes wasdiscarded.
viii. To elute the RNA, 50µl of Elution buffer were added directly to the spin column membrane placed in a new microfuge tube, incubated the column at room temperature for 5 mins and centrifuged for 1 min at 8200 rpm.

(C) Detection of SARS-CoV2 by Real-time PCR (qPCR)

There are so many Commercial RT-PCR kits are already available in the market. All these kits are the best for detection without any cross-reactivity with another virus and hence can be used for regular diagnosis of SARS-CoV-2. COVISure Genetix COVID-19 Real Time PCR kit was used to qualitative detection of novel coronavirus SARS CoV-2 RNA from nasophryngeal and oropharyngeal swab samples. The testing was performed using Real time PCR machine. Each reaction was run in a 96 well plate (Roche,Germany). The description of target gene with respected reporter dyes are presented in Table 1. Positive control (PC) and Negative control (NTC) were also run. Viral RdRP and E gene and human RNaseP (RP) mRNA sequences were used as the positive template whereas RNase/DNase-free ddH2O was added to the negative control tubes to check any contamination or primer dimer.

Table 1 Description of target gene with respected reporter dyes

Target Name	**Reporter**
E gene	FAM
RNase P	VIC
RdRp	CY5

The reaction mixture comprised of 5ulRNA,6 µl COVISure RT master Mix, 3 µl PP Mix 1, 3 µl PP Mix 2 and 3 µl PP Mix 3 (Table 2). The mixture was dispensed in 96-well plates (96-well reaction Plate 0.1 mL, Applied Biosystems) and sealed with optical film (Optical Adhesive Film, Applied Biosystems).The reactions were performed with following amplification conditions: 15 min at 50^0C (reverse transcription), 3 min at 95^0C (initial denaturation), 40 cycles of 10 sec at 95^0C (denaturation) and30 sec at 60^0C (annealing + extension).

Table 2: Reaction mixture for RT-PCR (20µl reaction)

S. No.	**Constituents**	**Volume**
1	RNA	5.0 µl
2	COVISure RT master Mix	6.0 µl
3	PP Mix-1	3.0 µl
4	PP Mix-2	3.0 µl
5	PP Mix-3	3.0 µl

	Total volume	**20 µl**

(D) Data analysis

Results were interpreted by determining the amplification curve and cycle threshold (Ct) values of the target gene and the internal control gene The data was acquiredby the CFX Dx Software 3.1 (Bio Rad) and subjected for analysis. The cycle threshold number ≤ 35 with a sigmoidal curve is accepted as `positive`.

Table 3 :-Data Analysis

HEX (Internal Control) RNaseP	**FAM Egene**	**Quasar670 RdRp**	**Result Interpretation**
+/-	+	+	Novel CoronavirusSARS Cov-2 RNA detected
+/-	+	-	Inconclusive
+/-	-	+	Novel CoronavirusSARS Cov-2 RNA detected*
+	-	-	All targets are valid, SARS Cov-2 not detected
-	-	-	Invalid. Repeat sampling/extraction/amplification

RESULTS

The present study was planned to detect SARS-COV-2 in patients suspected with COVID-19 by real-time reverse transcription polymerase chain reaction (RT-PCR).The results obtained are as follows:

For this work, a total of 24 respiratory samples, mainly nasopharyngeal and throat swab samples collected from patients suspected with COVID-19were subjected for RNA extraction. RNA were isolated from VTM samples using Nucleic Acid Extraction Kit. Quality of the RNA were checked by RNase P during RT-PCR.Results were interpreted by determining the amplification curve and cycle threshold (Ct) values of the target gene and the internal control gene. The cycle threshold number ≤ 35 with a sigmoidal curve is accepted as `positive`.

Negative control (NTC) sample shows curve for RNase P which determine that there is not any contamination or primer dimer in reaction (fig 5).

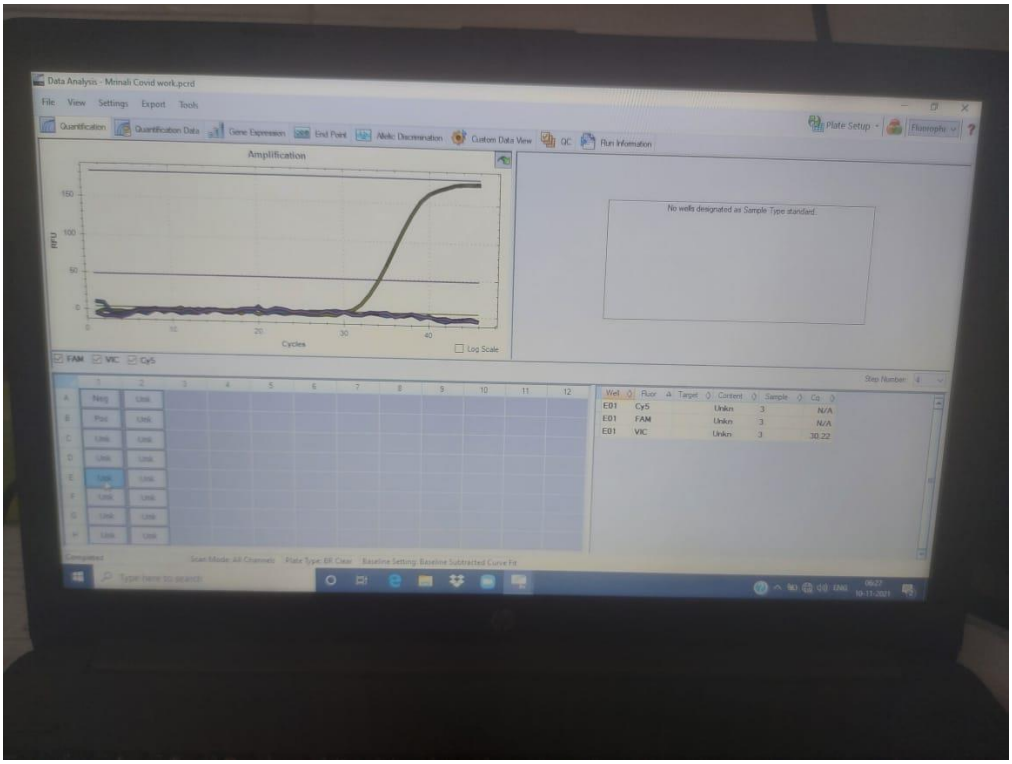

Fig 5: showing Negative control

Positive control (PC) sample show curves for RNaseP, E gene and RdRp which determine that the reagents are working properly. (If something was inhibiting the reaction, then the positive control would not be able to make amplicons. Also, if the reagents for the reaction were not made or mixed properly, the positive control would also not work as expected). (fig 6)

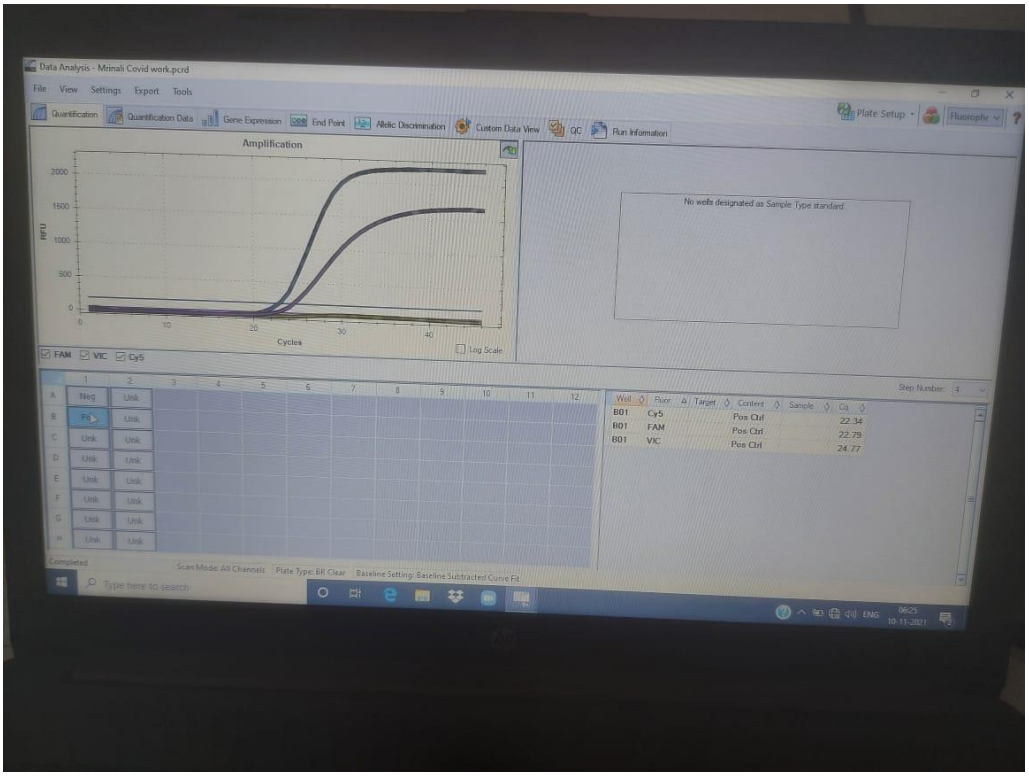

Fig 6: showing positive control

Negative samples show curve for RNase P only which determine that RNA have been extracted properly but there is not any viral infection (fig 7). Positive samples show curves for RNaseP, E gene and RdRp which determine that RNA have been extracted properly and there is COVID-19 infection (fig 8).

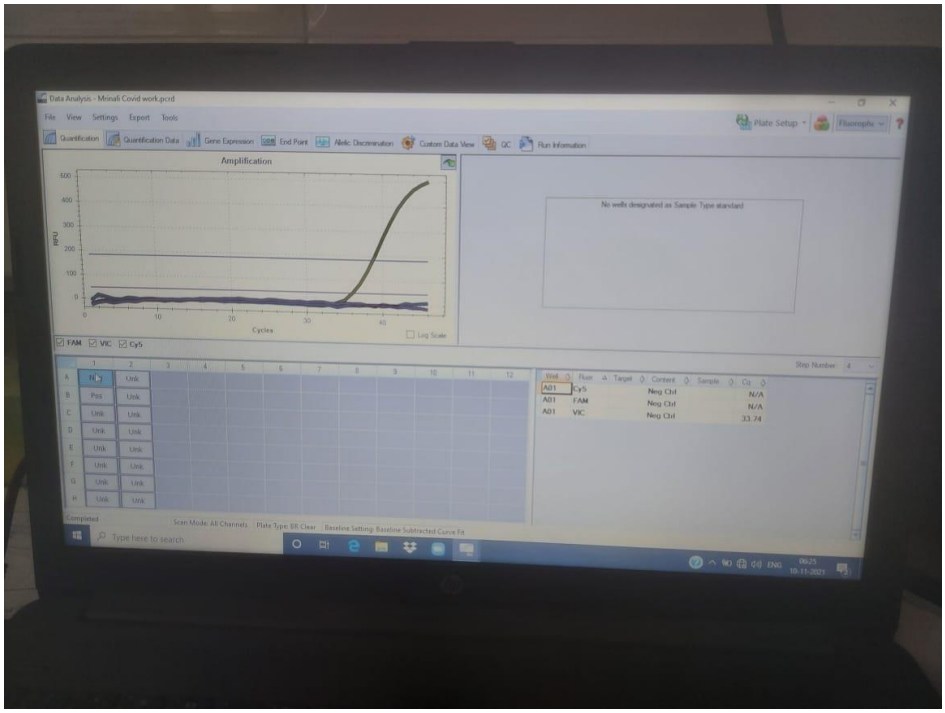

Fig 7: showing Negative samples

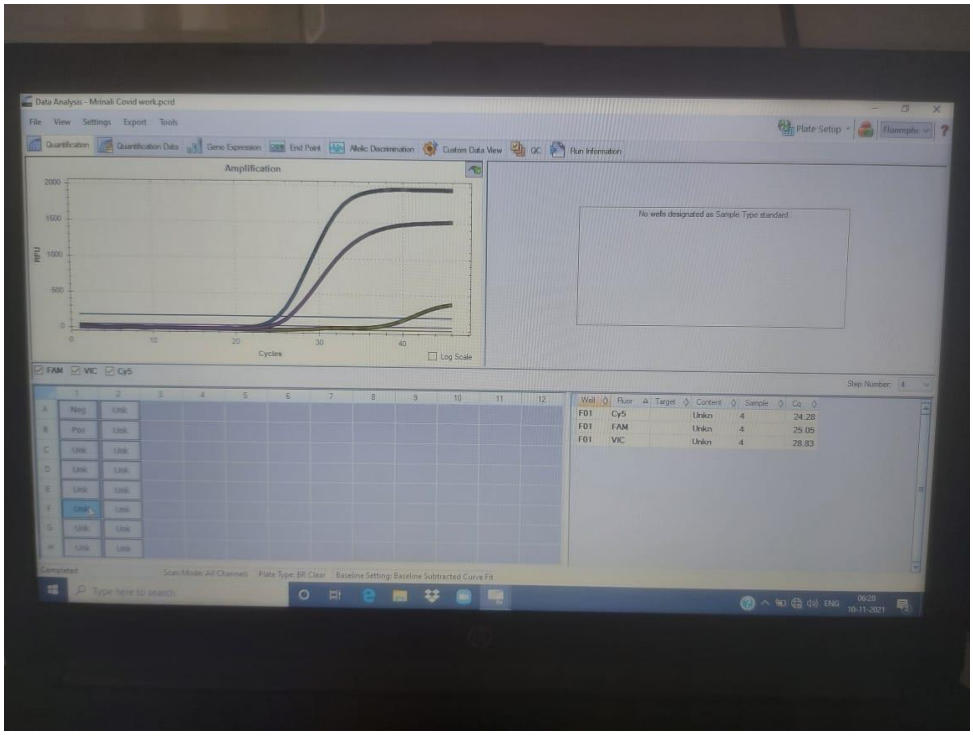

Fig 8: showing positive sample

A total number of 24 suspected patients, 15 male and 9 females were recruited in this study. The percentage of male patients was higher than females. These patients belonged to three age groups: Group 1 (<30 years), Group 2 (30 – 60 years) and Group 3 (>60 years), 10 patients from Group 1 whereas 07 - 07 belongs from Group 2 and Group 3. Out of 24 patients, three were found positive for COVID-19. In male patients, 2 were positive out of 15 patients where as out of 9 females, 1 was found positive for COVID-19.Out of three positives, two belongs from above 60 years age and one belongs from below 30 years age whereas there was not any positive between 31-60 years (Table: 4, Fig. 9)

Table: 4 Demographic data of COVID-19 patients

	Sex	Total (N=24)	Negative (n=21)	Positive (n=3)
Sex (n,%)	Male	15 (62.5)	13 (61.90%)	2 (66.66%)
	Female	9 (37.5)	8 (38.09%)	1 (33.33%)
Age Group	Group 1 (<30 years)	10	9	1
	Group 2 (31-60 years)	7	7	-
	Group 3 (>60 years)	7	5	2

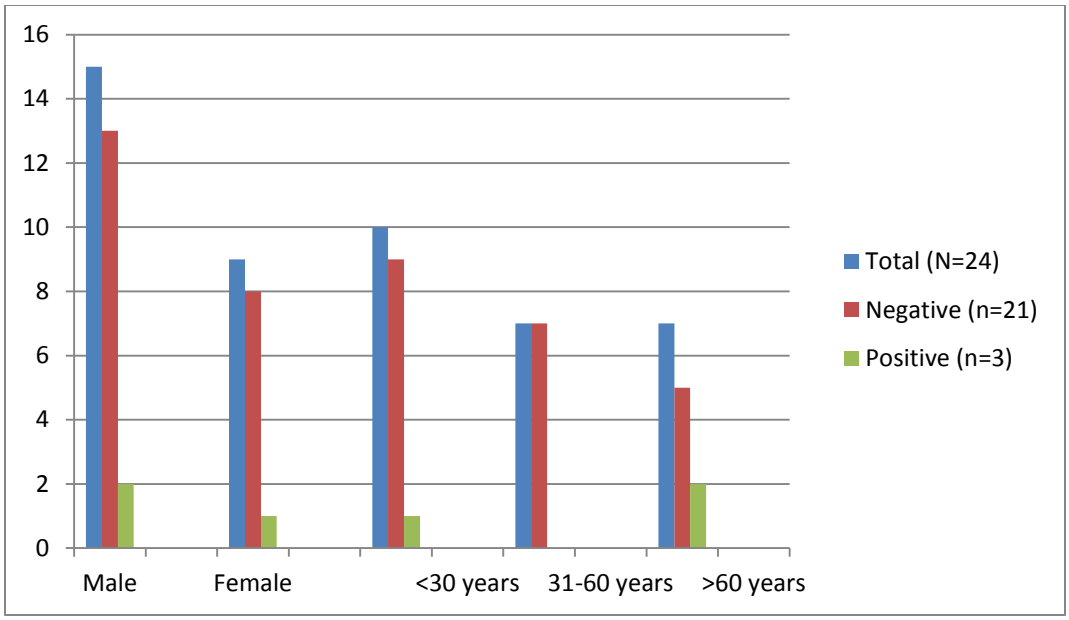

Fig: Comparing number of COVID-19 positive patients vs negative patients on the basis of age and gender

Discussion

COVID-19, caused by SARS-CoV-2, is rapidly spreading worldwide. Although most of the patients are symptomatic or having mild symptoms and a decent prognosis, a large percentage of patients develop into ARDS and even death. Testing facility for COVID-19 is a fundamental part of regulation and procedures, as it permits the proper clinical administration and general wellbeing interventions. Real-time reverse transcription polymerase chain reaction (RT-qPCR) is widely used to rapid diagnosis of COVID-19 in clinical samples collected from suspected patients. The assay targets the SARS-CoV-2 RNA-dependent RNA polymerase

(RdRp) gene, as well as the E gene.

Out of 24 patients, three were found positive for COVID-19. In male patients, 2 were positive out of 15 patients whereas out of 9 females, 1 was found positive for COVID-19. Out of three positives, two belongs from above 60 years age and one belongs from below 30 years age whereas there was not any positive between 31-60 years. Result shows that 12.5 % suspected patients were found positive. Among all age groups, older people are more susceptible to COVID-19 infection which is similar to several similar studies.

Conclusion

COVID-19, caused by SARS-CoV-2, is rapidly spreading worldwide. Real-time reverse transcription polymerase chain reaction (RT-qPCR) is widely used to rapid diagnosis of COVID-19 in clinical samples collected from suspected patients. In our study, 12.5 % suspected patients were found positive and it is found that older people are more susceptible to COVID-19 infection which is similar to several similar studies.

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FACULTY OF MANAGEMENT STUDIES

MOHANLAL SUKHADIA UNIVERSITY

UDAIPUR (RAJ.)

MASTER OF BUSINESS ADMINISTRATION

2020-2022

SUMMER INTERNSHIP REPORT

ON

TOPIC: "Effective Use of Digitalized Customer care Experience for Better Customer Engagement in Cement Industry

UNDER THE GUIDANCE OF:

MR. ROHIT PANDEY SIR
TEAM LEAD, CUSTOMER CARE
(WONDER CEMENT LIMITED)

SUBMITTED BY:

DIVYA ACHARYA
MBA (CMAT) – III SEM

7TH AUGUST,2021 **Wonder Cement Ltd.**

TO WHOMESOEVER IT MAY CONCERN

This is to certify that **Ms Divya Acharya** has successfully completed her 45 Days Summer Internship Training with **Wonder Cement Ltd**, from **1 June, 2021 to 22 July, 2021**

She has worked on a project titled '**"Effective Use of Digitalized Customer care Experience for Better Customer Engagement in Cement Industry"**. This project was aimed to analyse the effectiveness of the Digitalization in terms of enhancing the Customer experience & providing the delight factor to the customers.

During the internship she was involved in analysing the complete customer care flow, exploring multi-dimensional approach of the Customer care processes being adapted by leading players in the cement industry. She was also involved in market research & competitor analysis & provided her inputs on how best these strategies can be used in the Customer care domain.

During the internship, her performance was satisfactory. We wish her all the best for his future endeavours.

Rohit Pandey

Team Lead, Customer Care

Wonder Cement Limited

5th Floor, Celebration Mall, Udaipur- 313001

DECLARATION

I hereby declare that the Summer Training Project work entitled "**EFFECTIVE USE OF DIGITALIZED CUSTOMER CARE EXPERIENCE FOR BETTER CUSTOMER ENGAGEMENT IN CEMENT INDUSTRY**" submitted to Faculty of Management Studies Udaipur, is a record of original work done by me. This project work is submitted in the partial fulfillment of the requirement for the award of the degree of Master of Business Administration.

The results embodied in this report have not been submitted to any other University or Institute for the award of any degree or diploma.

26th May, 2022

DIVYA ACHARYA

ACKNOWLEDGEMENT

I have taken efforts in this project, however it would not have been possible without the support and help of many individuals and organisations. I would like to extend my sincere thanks to all of them.

I am highly indebted to Mr. **Rohit Pandey Sir (Assistant Marketing Manager at Wonder Cement Ltd.)** for the guidance and constant supervision as well as for providing necessary information regarding project and also for this support in completing the project.

I would like to express my gratitude and thanks to **Prof. Karunesh Saxena Sir** for giving me opportunity to work on this project

I'm grateful to **Prof. Meera Mathur Ma'am** for her support and guidance in completing this Project.

Also, my sincere regards to **Prof. Hanuman Prasad Sir** for giving me an opportunity to work on this project.

Last but not the least, I'm thankful to entire FMS fraternity for their constant support and help.

My thanks and appreciation also go to my colleague in making this project.

CONTENTS

SR.NO.	PARTICULARS	PAGE NO.
	Certificate of Internship	2
	Declaration	3
	Acknowledgement	4
Chapter 1	**Introduction to Company** Introduction to project Company profile	6 - 9
Chapter 2	**Internship description** Current scenario of the company Learnings and objectives Customer care process of wonder cement ltd. Data analysis Recommendations and suggestion	10-18
Chapter 3	**Research and methodology** Objective Queries asked during calling cycle	19-23
	Bibliography	24
	References	25

INTRODUCTION TO THE PROJECT

- PROJECT TITLE: **"EFFECTIVE USE OF DIGITALIZED CUSTOMER CARE EXPERIENCE FOR BETTER CUSTOMER ENGAGEMENT IN CEMENT INDUSTRY"**
- NAME OF THE ORGANIZATION: WONDER CEMENT LTD.
- ROLE: MARKETING INTERN
- TRAINEESHIP HEAD: Mr. ROHIT PANDEY
- DURATION: 1ST JUNE 2021 to 22nd JULY 2021

COMPANY PROFILE

WONDER CEMENT

EK PERFECT SHURUAAT

The state-of-the-art manufacturing unit was established in technical collaboration with **ThyssenKrupp and Pfeiffer Ltd. of Germany**, the world leaders in cement technology, to manufacturing company with an ambition to establish itself as a leading player in the industry. Established in 2007 & Enriched with the heritage of **R.K. Marble**, a leading name in the marble industry, our corporate culture is built on the values of quality, trust and transparency. An emphasis on technological superiority enables us to differentiate our offering through impeccable quality and effective communication. With an extensive network of dealers & retailers, we own a position in the premium segment of the market.

Wonder Cement has their cement plant in Nimbahera, District Chittorgarh in Rajasthan, with three production lines, has a capacity of producing 8 Million Tons Per Annum (MTPA) of clinker.

produce cement at par with international standards. Special effort was taken to ensure that the plant upholds the latest environmental norms and with the help of a reverse air bag house, ESP, and a number of nuisance bag filters, the plant remains clean & dust free.

In 2020, Wonder Cement invested ₹8 billion to set up cement plants in Badnawar and Jhajjar which increased the annual capacity to 13 million tonnes of cement.

Key Growth Drivers

Government projects : To develop the country's infrastructure, the Indian government has undertaken several projects related to the construction of roads and highways, both in the rural and urban areas, along with the development of industrial hubs in different parts of the country. These schemes and initiatives are together expectedto drive the growth of the Indian cement industry, since it is one of the primary materials for the successful execution of such projects.

Availability of raw material for cement : Essential minerals used for manufacturing cement, which include limestone (calcium), bauxite (aluminium), iron ore,and coal, are available in abundance in different parts of India. This has resulted in zero or low cost of import of raw materials for cement manufacturers, thus making cement businesses profitable in India. As a result, cement manufacturing has increased steadily, driving the supply side of the Indian cement industry over the years

RESOURCE OPTIMIZATION IN CEMENT MANUFACTURING

The following components are compulsory for making OPC cement:

Limestone – Natural Reserve, extracted or mined from Mines
Heat – requires heat of 1450°C , ideally obtained from Coal or its variants.
Gypsum –a mineral compulsory for providing the binding nature to cement

However with time, people figured out that limestone can be substituted with other materials namely Flyash or Slag, which will still provide the strength but to a lesser extent. The thresholdlimit of mixing Flyash is maximum 33%

For big infra projects, limestone component of upto 95% is required, but for daily homebuildinguse, the lower component limestone works fine enough.

Thus, there are various varieties of Cement depending on the composition of materials, namely OPC (Ordinary Portland Cement), PPC (Portland Pozzolana Cement) and PSC (Portland Slag Cement (PSC).
Flyash and slag are cheaper raw material and increased proportion of these in PSC and PPCleaves a higher profit margin by reducing cost of production.
Flyash is a by-product of Thermal Power Production. Most power producers want to dispose offly-ash and one of the ways is by selling it to cement who can

substitute it forlime-stone in the cement making process. Similarly slag is a by-product of Steel making processand is often sold to cement makers as a substitute for lime-stone in the cement making process.

Neither slag nor flyash can be transported across long distances. You have to be near to a steel orpower plant to use Flyash or Slag in the production process.

Optimization of manufacturing resources

1.Limestone :
Limestone is extracted from Mines. A company that has its own mines is at an advantageous position than the one which doesn't have mines.
Clinker is a prerequisite for cement. So a company can either make cement in the areas where limestone is available and the ship the finished good to those parts of country that want cement, or
Make only Clinker in the state where limestone is available, and then do the grinding of clinker in the region which requires cement.

Innovations and Game Changers in Cement industry

★ **Innovative retail store format by Ultratech :** UltraTech Building Solutions (UBS) stands for a novel way of doing things in India's conventional construction industry.

UBS designed the convenient 'plan, build and support' solution to offer one-stop home-building solutions - from planning to completion. At UltraTech, UBS is a franchise- driven model that caters to the building and construction needs of the individual home builder and construction fraternity.
UBS retail outlets offer a range of construction products and value-added services. Thesecomprise technical advice during construction, construction cost calculation, vaastu consultancy, product training and technical meets for customers. UBS graduates the shopping experience of customers; it strengthens existing trade partnerships by enhancing quality and customer service.

★ **Green cement :** Concrete is the most widely used man-made material,

commonly used in buildings, roads, bridges and industrial plants. But producing the Portland cement needed to make concrete accounts for 5-8% of all global greenhouse emissions.

There is a more environmentally friendly cement known as MOC (magnesium oxychloride cement), but its poor water resistance has limited its use – until now.Researchers have developed a water-resistant MOC, a "green" cement that could goa long way to cutting the construction industry's emissions and making it more sustainable.

MOC is produced by mixing two main ingredients, magnesium oxide (MgO) powder anda concentrated solution of magnesium chloride ($MgCl_2$). These are byproducts from magnesium mining.Over three years, the team has made a number of breakthroughs by adding fly ash, silica fume, phosphoric acid and soluble phosphates thus developing MOC as a green cement.

The MOC achieved a compressive strength of 110 MPa and flexural strength of 17 MPa.These values are a few times greater than those of conventional cement.When concrete isthe main structural component, steel reinforcement has to be used. Corrosion of steel in MOC is a critical issue and a big hurdle too.

DESCRIPTION OF INTERNSHIP WORK

As an intern in the marketing department of Wonder Cement I got a list of tasks to complete every day. To get marketing initiatives started at first I had to call at various customer care toll free no. of different cement companies approx. at 10 customer care toll free number. The task I undertook included:

Research on "**effective use of digitalized customer care experience for better customer engagement in cement industry** "which includes:

TASK 1:

- To understand present scenario of Wonder Cement
- To know about current scenario of other competitors
- Key points to enhance customer care services.

TASK2:

To make calls at different customer care service of different companies to know their process

To understand and analysing customer care service with different companies

TASK3:

Analysing data using tables of three cement companies including Wonder Cement, Ambuja Cement, Ultratech Cement and 2 other company that is Asian Paints and Berger Paints for better analysing

Finding understandable tables, cycles

TASK4:

process to understand customer care service in better way

Making new suggestions for the company

CURRENT SCENARIO IN DIGITALISED CUSTOMER CARE PROCESS

Key Points:

- **Messaging and Mailing:** Enquiring to the customer for their health, greetings on special occasions through message or mail
- **Customer Management System or App:** Making of such apps in which customer can write their reviews, grievances, orders, details, etc.
- **Organising Training programme for contractors:** Guide them to operate such app and making them involve digitally through customer management apps or system. As they are the key elements of cement industry
- **Conducting Webinars for dealers:** conducting webinar on topics of their interest, for ex- 'how to recover money from market'. And webinars on 'how to communicate digitally '
- **Approaching architects:** Involving architects will be great initiative as it is easy to make contacts with them socially on digital platform

Current Scenario:

- There is an 'eSampark 'app created for wonder cement, to equip their users like dealers, BP and handling Agents, with mobile to communicate effectively with line of business application
- The purpose of the app is to create an environment where users would be able to connect with businesses, as well as sharing their experience, reviews and posting feedback

Competitors:

- 'One Ultra Tech App' for ultra tech cement is there which features are as follows:
- With easy ordering to real time tracking
- Single view of data across various parameters
- With greater insights on their network performance
- With better lead management
- Multiple happy customers by availing services at their fingertips

LEARNINGS AND OBJECTIVES

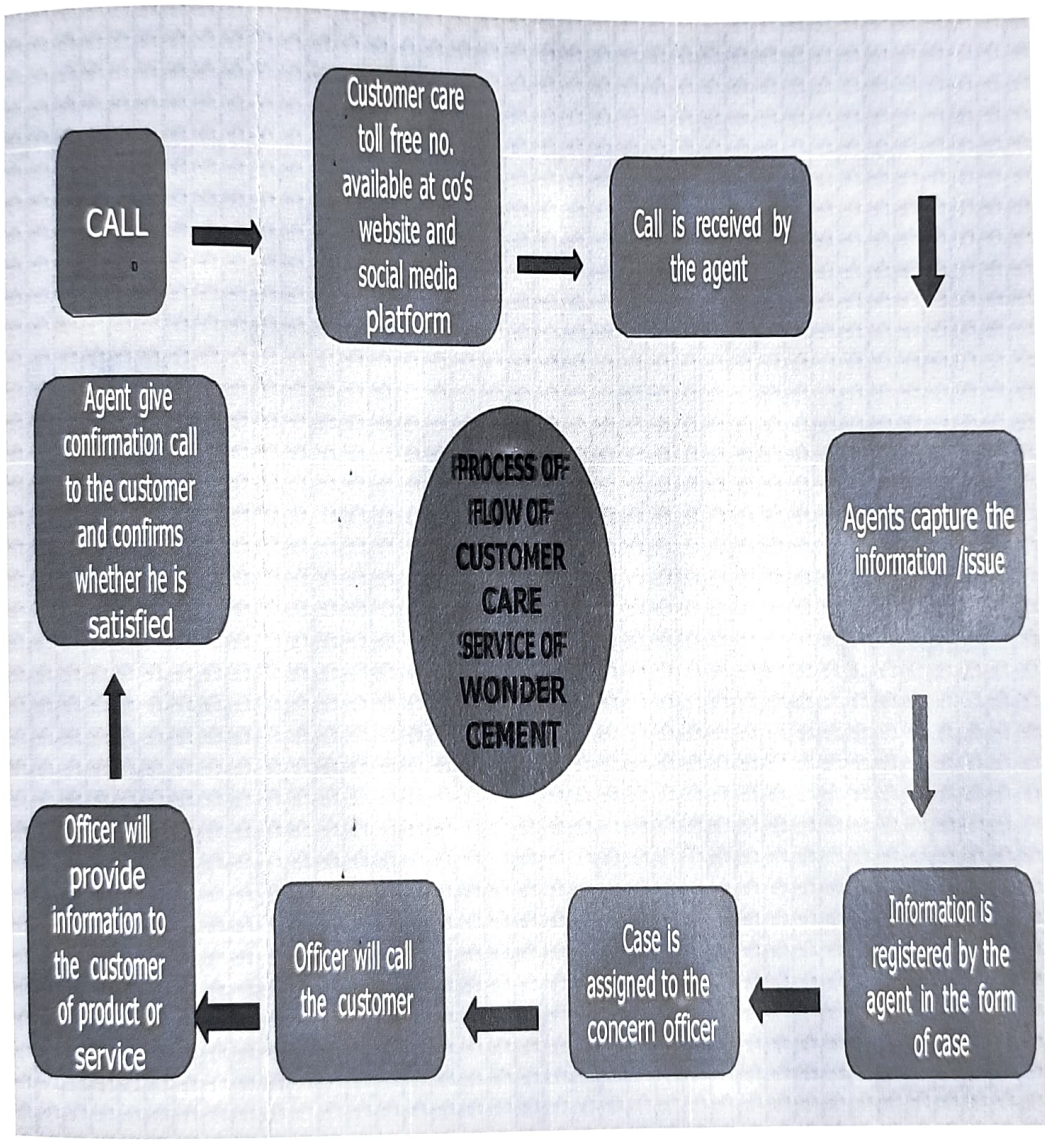
LEARNINGS

- To understand company's objective
- To know customer care process of the company
- To make competitors analysis of cement / building material industry
- To know tools techniques of customer care service
- Making new suggestions to enhance customer care service

OBJECTIVES

- To identify opportunities and threats of customer care service
- To know agent response and resolution time
- To improve customer service KPI's (Key Performance Indicators)
- To measure customer value satisfaction

CUSTOMER CARE PROCESS OF WONDER CEMENT LTD.



Customer care service process of Wonder Cement Ltd. Includes nine steps which are as follows:

- Step 1- in first step customer have to call to the customer care service of the company for whatever he/she wants to ask

- Step 2- toll free number is available at the company's website or social media platform like facebook Instagram

- Step 3- call is received by the agent present at the call center during call cycle

- Step 4- agent captures or feed the problem or issued faced by the customer

- Step 5- information is registered by the agent in the form of case number or code number and same provided to the customer via message or mail for further procedure

- Step 6- case is assigned to the concerned officer for scrutinize of the problem

- Step 7- after that officer will call the customer for further details which is required to solve the problem

- Step 8-officer will provide complete information of the product or service of the company to the customer

- Step 9- agent give confirmation call to the customer whether the customer is satisfied or not with the information provided to him

COMPETITORS ANALYSIS OF CUSTOMER CARE PROCESS IN CEMENT /BUILDING MATERIAL INDUSTRY

COMPETITORS ANALYSIS OF CEMENT S BUILDING MATERIAL INDUSTRY

PARAMETERS	WONDER CEMENT	AMBUJA CEMENT	ULTRATECH CEMENT	ASIAN PAINTS	BERGER PAINTS
Cuztomer waiting time (scored on the basis of time taken more time less marks provided and vice versa)	Waiting time was 4-5 mins during IVR (Interactive Voice Response)**SCORE -6**	Waiting time was 1-2 mins during IVR **SCORE - 8**	Waiting time was 1-2 mins during IVR **SCORE - 8**	Waiting time was 3-4 mins during IVR **SCORE -7**	Waiting time was 4-5 mins during IVR **SCORE - 6**
Product zervice knowledge (scored on the basis of knowledge of the agent complete knowledge scored highest)	Complete knowledge of PPC/OPC **SCORE - 9**	Complete knowledge of normal cement and roof special cement **SCORE - 9**	Incomplete knowledge **SCORE - 7**	Complete knowledge of different colors and textures **SCORE - 9**	Complete knowledge of different colors and textures **SCORE - 9**

PARAMETERS	WONDER CEMENT	AMBUJA CEMENT	ULTRATECH CEMENT	ASIAN PAINTS	BERGER PAINTS
Agent'z problem zolving zkill Scored on the basis of queries solved by the agent each queries solved scored highest and so on	Excellent problem solving skill ,solved each and very query asked **SCORE - 9**	Excellent problem solving skill ,solved each and every query asked **SCORE - 9**	Not satisfied with solving skill , not solved every query **SCORE - 7**	Excellent problem solving skill **SCORE - 8**	Good problem solving skill **SCORE - 7**
Minutez zpent on call	10-12 minutes **SCORE - 9**	10-12 minutes **SCORE - 9**	5-8 minutes **SCORE - 6**	8-10 minutes **SCORE- 8**	8-10 minutes **SCORE - 8**
Callz anzwered over time	Answered after 2nd call **SCORE - 6**	Answered after 1st call **SCORE - 9**	Answered after 1st call **SCORE - 9**	Answered after 3rd call **SCORE - 4**	Not answered **SCORE - 4**
Firzt call rezolution	Satisfied with 1st call resolution	Satisfied with 1st call resolution	Not fully satisfied with 1st call	Satisfied with 1st call resolution	Not fully satisfied with 1st call

PARAMETERS	WONDER CEMENT	AMBUJA CEMENT	ULTRATECH CEMENT	ASIAN PAINTS	BERGER PAINTS
Cuztomer delight (scored on the basis of initiatives taken by the company)	Taken many initiatives during covid - 19 pandemic ,like providing healthcare helpline no. and many more **SCORE - 9**	Ambuja Cement as well took many initiatives ,like providing helpline no. and facilities to the customer and workforce of the company **SCORE - 9**	Not so much active in taking such initiatives for customer **SCORE - 6**	Taken but less as compare to other companies **SCORE - 7**	Not taken initiatives **SCORE - 5**
Overall rating from above parameterz	**SCORE - 8.12**	**SCORE - 8.75**	**SCORE - 7.12**	**SCORE - 7.5**	**SCORE - 6.6**

Customer care service process analyzed on the basis of different parameters as shown above, accordingly all five cement and building material industry scored.

And Wonder Cement Ltd. Scored **8.12** which is middle scorer and Ambuja Cement is highest scorer i.e **8.75** among all the industry.

Wonder Cement Ltd. Scored average on the basis of following parameters

- Excellent problem solving skills, solved each and every query asked
- Satisfied with first call resolution
- Take many initiatives during covid -19 pandemic like providing healthcare number and many more
- Waiting time was 4-5 mins during IVR (Interactive Voice Response)
- Complete knowledge of PPC/OPC types of cement provided to the customer by Wonder Cement Ltd.

SUGGESTIONS FROM ABOVE ANALYSIS

- Customer convenience: Agent can ask to customer when they are comfortable to talk to the officer according to the customer convenience, Like in Ambuja Cement Limited they ask customer when they are free to talk to the officer.
- Mailing of product information: customer service staff can provide information about product or service on mail or text message. Like in Nuvoco they providing such information for example price of the product, policies, type of cement, providing brochure of the company like in Asian Paints they providing brochures etc.
- Single chasing call: Agent should not call continuously to the customer in a single day rather they should call once in a day, as customer get irritated sometimes.
- Regular customer touch base: When customer get satisfied with the query after that agent should be in touch with the customer. Like greetings should be given occasionally. So customer will be comfortable in asking further query.
- Live chat features: live chat features come in handy too since they allow customer to work remotely so that they can be available more often

QUERIES ASKED DURING CALLING CYCLE

BY CUSTOMER:

- Price of the product
- Ongoing schemes of the company regarding product or services
- Discounts or offers
- Sales officer contact number
- Time of selling
- Asking for brochure of the company
- Types of cements offer to the customer
- Process of delivering the product
- Refund or return policy

BY DEALERS AND RETAILERS:

- Ongoing schemes of the company
- How to get registered retailer or distributer of the company
- Price of the product
- Procedure to become the part of the company
- Pricing strategies
- Sales techniques
- Ways to approach customer at a store

QUESTIONS FOR NPS (NET PROMOTER SCORE)

- How did you hear about us?
- Were your expectations met, unmet, or exceeded?
- Did our employees or customer service staff help you?
- Did our staff answer your questions?
- Were you served promptly?
- How can we make your experience better?
- What rating you will give out of 10?

MAJOR LEARNINGS FROM INTERNSHIP

- Communication skills
- Work ethics.
- Adaptability skills
- Responsibility
- Time management
- Problem solving skills.
- Team work.

RESEARCH METHODOLOGY

Objective of the study

the main objective is to conduct this research is to understand the customer care service and its process and the various other activities:

- To study and understand the concept and process of customer care service
- To know the present scenario of customer care service of the company and other competitors
- To get the practical implications of the process involved in the service

Data collection method

- Primary data: primary data means data that are collected by different techniques like questionnaire, depth interview, survey, schedules, etc. in this project, primary data has been collected by calling at different call center personally.
- Secondary data: secondary data means that are already available. The secondary data involved in this project has been gathered from various websites and internet

CONCLUSION

The customer service process is the group of activities that we carry out from the moment we receive the first contact from a user until we solve his or her problem and we say goodbye to him or her, sorted according to the different phases that we throughout the procedure.

By doing so, your company creates a long-term, mutually-beneficial relationship with your customers. In customer service, the closest concept to customer care is customer relations. Both are functions of customer service and deal with long-term relationship-building.

From my internship at Wonder Cement, I was able to get a better understanding of how the customer care service works and how effective it is. I enjoyed working with the Wonder Cement team to devise and implement different customer care services. However, I still have a long way to go in understanding the other aspects of marketing specifically customer care management and I need to build up my public speaking as well. Overall, I found the marketing internship experience to be positive and I am sure I will be able to use the skills I learned in my career

FACULTY OF MANAGEMENT STUDIES

MOHANLAL SUKHADIA UNIVERSITY

UDAIPUR (RAJ.)

MASTER OF BUSINESS ADMINISTRATION

2020-2022

SUMMER INTERNSHIP REPORT

ON

TOPIC: ANALYSIS OF DIFFERENT SEGMENTS OF CEMENT INDUSTRIES IN INDIA AND ANALYZING THEIR ONLINE MARKET WITH WONDER CEMENT

UNDER THE GUIDANCE OF:

MR. ROHIT PANDEY SIR
TEAM LEAD, CUSTOMER CARE
(WONDER CEMENT LIMITED)

SUBMITTED BY:

NITISH RATHORE
MBA (CMAT) – III SEM

07 August, 2021

Wonder Cement Limited

INTERNSHIP CERTIFICATE

This is to certify that **Mr Nitish Rathore** has successfully completed his 45 Days Summer Internship Training with **Wonder Cement Ltd**, from **1 June, 2021 to 22 July, 2021**

He has worked on a project titled '**"Enhancing Customer Experience using Digital Marketing in Cement Industry"**. This project was aimed to analyse how best Digital marketing can shape up the customer journey in Cement Industry.

During the internship he was involved in analysing the end-to-end customer journey and understand the process flow of Digital initiatives of multiple players in the industry. He was also involved in the online and offline Market Research for the leading players in the industry.

During the internship, his performance was satisfactory. We wish him all the best for his future endeavours.

Rohit Pandey

Team Lead, Customer Care

Wonder Cement Limited

5th Floor, Celebration Mall, Udaipur- 313001

DECLARATION

I hereby declare that the work, which is being presented in this Summer Internship Report, entitled **"Analysis of Different Segments of Cement Industries in India and Analyzing their Online Market with Wonder Cement"** is original & bona fide work done by me.

This project is being submitted in partial fulfillment requirements for the award of degree of Master of Business Administration at Faculty of Management Studies, Udaipur (Rajasthan).

The contents of this project are based on the analysis done by me during the research period and I further declare that the personal data and information received from any respondents has not been shared with anyone and is used for academic purpose only.

Nitish R

NITISH RATHORE

DATE : 25 MAY, 2022

ACKNOWLEDGEMENT

The success and final outcome of this internship required a lot of guidance and assistance from many people and I am extremely fortunate to have got this all along the completion of my internship work. I would like to extend my sincere thanks to all of them.

I would like to express my gratitude to **Mr. Anurag Srivastava Sir** and **Mr. Rohit Pandey Sir, from the Marketing Department of Wonder Cement Ltd. Udaipur,** for the guidance and constant supervision as well as for providing necessary information regarding the internship and the responsibilities and also for the support in completing the internship smoothly.

Also, I would like to extend my sincere gratitude to my teacher **Prof. Hanuman Prasad Sir** for giving me opportunity to work on this internship, who guided me all along, till the completion of my internship & the project work by providing all the necessary information.

I would also like to thank all the faculty members of **F.M.S. College** for their critical advice and guidance without which this internship have not been possible. Last but not the least I place a deep sense of gratitude to my family members and to my friends who have been constant source of inspiration during the internship.

CONTENTS

SR.NO.	PARTICULARS	PAGE NO.
	Certificate of Internship	**2**
	Declaration	**3**
	Acknowledgement	**4**
Chapter 1	**Introduction to Indian Cement Industry** 1.1 Production Volume 1.2 Factors affecting Cement Industry 1.3 Impact of Covid-19 on Cement Industry	**6 - 8**
Chapter 2	**About Wonder Cement Ltd.** 2.1 Company Profile 2.2 Management at Wonder Cement 2.3 Group Companies 2.4 Mission & Vision Statement of the Company 2.5 Cement Manufacturing Process 2.6 SWOT Analysis of Wonder Cement	**9-16**
Chapter 3	**Internship Position** 3.1 Work Description 3.2 Various Tasks performed during the Internship	**17-27**
	Conclusion	**28**
	References	**29**

CHAPTER 1

INTRODUCTION TO INDIAN CEMENT INDUSTRY

India is very vast and this makes the cement industry to divide in five regions. North, East, West, South and Central region. India holds the second position in the global cement industry. The cement industry in India is supported by high FDI. India's cement industry is a vital part of its economy, providing employment to more than a million people, directly or indirectly. Ever since it was deregulated in 1982, the Indian cement industry has attracted huge investments, both from Indians as well as foreign investors. India has a lot of potential for development in the infrastructure and construction sector and the cement sector is expected to largely benefit from it. Some of the recent major initiatives such as development of 98 smart cities are expected to provide a major boost to the sector.

1.1 PRODUCTION VOLUME

India's overall cement production accounted for 294.4 million tonnes (MT) in FY21 and 329 million tonnes (MT) in FY20. India's cement production in February 2021 increased by 7.8% compared to February 2020. India's overall cement production accounted for 262 million tonnes (MT) in FY21 (Till February 2021).

1.2 FACTORS AFFECTING CEMENT INDUSTRY

- Housing
- Infrastructure development
- Government policies and programmes
- Real estate market
- Foreign Direct Investment
- GDP of India

1.3 IMPACT OF COVID-19 ON CEMENT INDUSTRY

The COVID-19 pandemic in India is part of the worldwide pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case of COVID-19 in India, which originated from China, was reported on 30 January, 2020.

The Covid-19 second wave has adversely impacted cement production, with the all-India production in April and May 2021 lower than April and May 2019.
With most states imposing lockdowns due to the spread of Covid-19 infections to rural regions, the cement off-take has been affected.

Anupama Reddy, Assistant Vice President & Sector Head, ICRA, says, "While the sales volumes are expected to be lower by 25% Q-o-Q in Q1 FY2022 (41 MT); the pent-up demand is expected to push the volumes starting Q2 FY2022. The cement companies have undertaken price hikes in

April 2021 driven by the increase in the input costs, primarily power and fuel expenses and freight expenses over the last few months."

In terms of sales trend, the Covid-19 disruption adversely impacted the cement demand in FY2021 resulting in the sharpest de-growth over the last decade. Domestic cement production reported a decline of 12% Y-o-Y to 294 million MT. The significant impact on production was felt in Q1 FY2021 with a production contraction due to the nationwide lockdown's adverse effect with the construction activities coming to a halt, primarily in April 2020.

While the production picked up in Q2 and Q3 FY2021 supported by rural demand, it remained lower on a Y-o-Y basis. This rebound in production was driven by sustained rural housing demand and pick up in the infrastructure activity. The production in March 2021 at 32.9 million MT, almost reached a pre-covid level high of 33.1 million MT, reported in March 2019.

As the COVID-19 outbreak has slowed construction in many countries, the industry has seen lower demand for its products, leading to overcapacity. Cement companies are largely expected to survive the crisis, but they must strengthen their sustainability and competitiveness. Companies must also reduce their carbon emissions for their long-term viability; with the cement sector generating 7 to 8 percent of global greenhouse gas emissions, pressure is growing for the industry to achieve carbon neutrality.

CHAPTER 2

WONDER CEMENT LIMITED

Type	Private Company
Industry	Building materials
Founded	2007
Headquarters	Udaipur, Rajasthan, India
Key People	Ashok Patni, Chairman
Products	Cement
Parent Company	RK Group
Website	www.wondercement.com

2.1 COMPANY PROFILE:

Wonder Cement is a cutting-edge cement manufacturing company with an ambition to establish itself as a leading player in the industry. Established in **2007** & Enriched with the heritage of **R.K. Marble**, a leading name in the marble industry, our corporate culture is built on the values of quality, trust and transparency. An emphasis on technological superiority enables us to differentiate our offering through impeccable quality and effective communication. With an extensive network of dealers & retailers, it owns a position in the premium segment of the market.

Wonder Cement has their cement plant in Nimbahera, District Chittorgarh in Rajasthan, with three production lines, has a capacity of producing 8 Million Tons Per Annum (MTPA) of clinker.

The state-of-the-art manufacturing unit was established in technical collaboration with **ThyssenKrupp and Pfeiffer Ltd. of Germany**, the world leaders in cement technology, to produce cement at par with international standards. Special effort was taken to ensure that the plant upholds the latest environmental norms and with the help of a reverse air bag house, ESP, and a number of nuisance bag filters, the plant remains clean & dust free.

In 2012, the company set up its first unit in Nimbahera, Rajasthan, with three million tonnes per annum. In 2015, Wonder Cement added another unit taking its annual cement production to 6.75 million tonnes. In 2018, the company invested ₹4.5 billion to set up a two-million-tonnes per annum clinker grinding unit in Dhule, Maharashtra. In 2019, Wonder Cement invested ₹11 billion to build a third plant at Nimbahera in Rajasthan's Chittorgarh District, increasing its annual capacity of producing close to 11 million tonnes of cement. In 2020, Wonder Cement invested ₹8 billion to set up cement plants in Badnawar and Jhajjar which increased the annual capacity to 13 million tonnes of cement.

2.2 MANAGEMENT AT WONDER CEMENT:

- **Chairman** – Mr. Ashok Patni
- **Vice Chairman** – Mr. Vimal Patni
- **Joint Managing Director** – Mr. Vikas Patni
- **Whole Time Director** – Mr. Ibrahim Ali
- **Managing Director** – Mr. Kiran Patil
- **Director** – Mr. Vivek Patni
- **Executive Director** – Mr. Sanjay Joshi
- **Director** – Mr. Parmanand Patidar
- **Senior President** – Mr. Shashi Mohan Joshi
- **President & Business Head** – Mr. Vinay Wadhwa
- **Management & Legal Advisor** – Mr. Ravindra Singh Mohnot

2.3 GROUP COMPANIES:

❖ R.K. Marble

RK Marble is the world's largest marble producing company which has built a legacy of unmatched quality since 1989, and is today recognised across the globe as a leading processor/producer of exquisite marble.

RK Marble, has been at the forefront of quality right from its inception and its vision has always been to adorn spaces with grandeur & unmatched quality.

Through the use of state-of-the-art cutting-edge technology, we consistently bring the largest volumes of the finest marble to the world. Catering to the needs of each and every individual, we deliver a wide spectrum of products, backed by a plethora of services at price points accessible by every buyer.

❖ Wonder Home Finance

Wonder Home Finance Ltd. is an NHB-registered housing finance company based out of Rajasthan. It was incorporated with a view to provide finance through home loans and business MSME loans, keeping in mind the Pradhan Mantri Awas Yojana (PMAY) to provide finance to lower and middle-class segment of the society in semi-urban and rural areas.

At Wonder Home Finance, we aim to deliver the highest quality products & services to our customers through proven professionals, best-in-class technology and customer friendly processes. We act transparently, ensuring that our customers have all the information they need for each decision they make and we aim to celebrate this important journey with our customers by hand holding them every step of the way, while keeping things absolutely simple.

2.4 MISSION & VISION STATEMENT OF THE COMPANY:

❖ Mission Statement of Wonder Cement:

"To build a gilt-edged brand in the category through state-of-the-art technology, continuous innovation and most sustainable business practices thereby evoking trust among our stakeholders."

❖ Vision Statement of Wonder Cement:

"To make quality cement which builds a better place for the youth, their families and the nation at large."

2.5 CEMENT MANUFACTURING PROCESS:

❖ Limestone Mining –

First, we need limestone, which is extracted from mother earth by using NONEL (Shock Tube) eco-friendly blasting technology. Then, with the help of dumpers and shovels we put the limestone into the dump hopper where it is carried by apron feeder to the Wobbler for further processing by screening & sizing by crushing.

❖ Limestone Crushing –

The high-tech crusher breaks the limestone boulders to the required Raw Mill feed size. Chittorgarh Area in Rajasthan is known for its superior quality limestone deposits, possessing high lime content that gives high early strength and ultimate long-term strength. Another characteristic feature of this limestone is low alkali, low magnesia and low chloride content, which are highly desirable parameters for concrete durability.

❖ **Limestone Grinding –**

The job of grinding is done by the Vertical Roller Mill, which works like a cyclone to create a fine dust of evenly sized particles. As the feed is ground on the horizontal grinding table, hot air is pushed upwards from underneath forcing the smallest particles to rise. The finest particles pass through a separator into the mill compartment at the top, while the heavier particles descend again.

❖ **Pre-Heating Stage -**

In this stage, extreme heat is applied to the mixture, causing a series of chemical processes to form new compounds known as 'clinker minerals'. The raw material first passes through the 6-stage ILC preheater before entering the rotary kiln, where the mixture reaches its burning point and undergoes a chemical transformation.

❖ **Cement Grinding Process –**

In the final manufacturing stage, gypsum is measured and added to the clinker in order to yield the final product. After first passing the mixture through a roller press, it is further reduced into a fine powder with the help of a single chamber ball mill.

❖ **Cement Packaging –**

Now, the cement is stored in four silos, then extracted and bagged by eight consistent high accuracy electronic roto packers. The packaged product is finally transported by trucks and railway wagon into the hands of satisfied customers.

The Wonder Cement factory process is now complete. From blasting the limestone to packaging the product, every stage of production is carried out with the utmost attention to detail so that every sidewalk, every school, and every city built on Wonder Cement can enjoy **'Ek Perfect Shuruaat'.**

2.6 SWOT ANALYSIS OF WONDER CEMENT:

STRENGTHS –

- Use of POLAB (Robotic) technology in their cement operations.
- Strong Logistics Management.
- Geographically positioned, which gives flexibility to its operations.
- Has strong presence in high growth market like west, north which does not suffer from oversupply.
- It has extensive dealership and retailers' network.
- Efficient transport management for efficient delivery and optimal cost.
- Strong Financial Support.

WEAKNESSES –

- There are no operations in southern market.
- Lack of timely capacity addition to restrict sales.
- High transport cost.
- Capacity constraints to limit sales.
- Dependent on govt. for license of mines.
- Levy of royalty over and above the technical services fees.
- Delay in supply.
- Insufficient Manpower.
- Inconsistency of Supply.

OPPORTUNITIES -

- Huge govt. expenditure in infrastructure development to boosts the cement demand high.
- Low-cost housing loan increased the real estate and individual housing also.
- Rising population works as a catalyst for housing boom.
- As per govt. budget, tax free income increased to Rs. 2,50,000/- which create saving andboost up the housing.
- Long term growth for cement industries is favorable as India is in its developing stage.

THREATS –

- Very Strong Competitors like Ultratech Cement, Ambuja Cement etc.
- Rising input cost of material like limestone, gypsum due to high duty and high mining cost.
- Gypsum is imported, due to low quality of gypsum in India, which impact on price of production by paying the import duty.
- Rising cost of logistics.
- Rising cost of power.
- Increasing fuel prices are another threat which increase the transportation cost, which may create a material effect in freight and forwarding cost.
- Penalty threats of cartel by competition commission of India.
- New entrant threats due to high potential market.

CHAPTER 3

INTERNSHIP POSITION

I joined Wonder Cement Ltd. for an internship program in the capacity of a **Marketing Intern**, where I was responsible for **enhancing Customer Experience using Digital Marketing in the company** and was also responsible for **analyzing the online market for the smooth launch of E-commerce platform by the company** and for enhancing Social Media and **Customer Care services** in the company, while the central focus was to conduct marketing research on different competitors of various cement industries and building materials industries, collating marketing data and conceptualizing market realities. I also researched on various other topics and work given by the Company.

3.1 WORK DESCRIPTION:

As a Marketing Intern at Wonder Cement, I got various tasks to achieve every day. To get the deep understanding and knowledge of marketing and the market (both online & offline), I was told to analyze the position and popularity of various cement industries in the Indian market and also to analyze their digital presence on various social media handles and the websites. I used to analyze different segments and areas of Cement Industries in India by researching upon various cement industries and then comparing it with Wonder Cement.

3.2 VARIOUS TASKS PERFORMED DURING THE INTERNSHIP:

TASK 1 - Enhancing Customer Experience using Digital Marketing in Wonder Cement.

The First Market Research Task given to me was on "Enhancing Customer Experience using Digital Marketing in Wonder Cement."

ANALYSIS DONE BY ME IN THE MARKET RESEARCH:

- Analyzed the online market opportunities for Wonder Cement.
- Analyzed the digital presence and current progress & position of the company among its competitors.
- Whereas, also suggested various key factors to enhance better Customer Experience by optimizing various social media platforms and by using the power of Ads to get better reach and customer engagement and also given some key factors to enhance better Customer Care Services in the Company.
- Focused on the SWOT analysis of the company and then targeted weaknesses of the company at topmost and then worked on it.

SUGGESTIONS GIVEN BY ME AFTER THE MARKET RESEARCH:

- Regular Optimization of all the Social Media Platforms.
- Increase in Customer Engagement on all Social Media Platforms.
- Posting of CSR Activities on Social Media Platforms too for better reach and growth.
- Use of Facebook ads and Google ads for increasing followers and reach.
- Cement Knowledge and Awareness regarding their qualities and standards on social media & Website's Blog Section.
- Use of WhatsApp/Text Marketing by sharing feedback form or rating format and suggestion box in between the buyers of Wonder Cement. (Like when a customer buys Wonder Cement from the nearest dealer, the dealer should ask about his WhatsApp/Mobile

no., and as soon as the customer buys the cement, after some hours a **Feedback** message should be reflected on his WhatsApp or via Text asking about the quality of the cement provided, behavior of the dealer, and the overall experience, all together in **Rating Format** and a Suggestion Box).

TASK 2 - Competitive Analysis between Top 10 Cement Companies in India.

The Second Market Research Task given to me was the "Competitive Analysis between Top 10 Cement Companies in India" including Wonder Cement.

COMPETITIVE ANALYSIS BETWEEN TOP 10 CEMENT COMPANIES IN INDIA

WEBSITE ANALYSIS:

AVAILABLE = A & NOT AVAILABLE = NA

CONTENT AVAILABLE ON THE WEBSITE	WONDER	ULTRATECH	SHREE	ACC	AMBUJA	NUVOCO	JK	INDIA	BIRLA	BINANI
ABOUT US INFO.	A	A	A	A	A	A	A	A	A	A
PRODUCTS INFO.	A	A	A	A	A	A	NA	NA	A	NA
COMMUNITY INFO.	A	NA	A	NA	NA	A	A	A	A	NA
MEDIA INFO.	A	A	A	A	A	A	A	A	A	A
CAREERS INFO.	A	A	A	A	A	A	A	A	A	A
DIGITAL ASSISTANCE OR CHATBOT	NA	A	NA	NA	NA	A	NA	NA	NA	NA
INVESTORS RELATED INFO.	NA	A	A	A	A	A	A	A	A	A
SUSTAINABILITY REPORTS INFO.	A	A	A	A	A	A	NA	A	A	A

COMPETITIVE ANALYSIS BETWEEN TOP 10 CEMENT COMPANIES IN INDIA

CONTENT AVAILABLE ON THE WEBSITE	WONDER	ULTRATECH	SHREE	ACC	AMBUJA	NUVOCO	JK	INDIA	BIRLA	BINANI
SEARCH BAR ON WEBSITE	NA	A	A	A	A	NA	NA	NA	NA	A
WEBSITE LOADING TIME & SERVER RESPONSE	2.78 Sec	3.14 Sec	5.02 Sec	5.75 Sec	5.00 Sec	3.12 Sec	2.24 Sec	6.36 Sec	3.50 Sec	4.39 Sec
WEBSITE ORGANIC TRAFFIC PER MONTH	37/mo	85/mo	44/mo	70/mo	80/mo	23/mo	29/mo	16/mo	11/mo	26/mo
WEBSITE TOTAL DA	29	44	29	40	39	28	37	37	40	39
WEBSITE TOTAL PA	34	49	35	49	43	32	25	41	25	39
WEBSITE SEO SCORE	80/100	83/100	80/100	50/100	64/100	75/100	63/100	60/100	63/100	68/100
GOOGLE PAGE SPEED INSIGHTS SCORE	86	48	32	56	16	34	78	52	47	36
MY OVERALL USER EXPERIENCE OF WEBSITE	8/10	9/10	8/10	7/10	7/10	8.5/10	6/10	8/10	8/10	6/10

.

SOCIAL MEDIA ANALYSIS:

AVAILABLE = A & NOT AVAILABLE = NA

SOCIAL MEDIA PLATFORMS	WONDER	ULTRATECH	SHREE	ACC	AMBUJA	NUVOCO	JK	INDIA	BIRLA	BINANI
FACEBOOK	5,47,670+ PAGE LIKES	3,382 PAGE LIKES	18,319 PAGE LIKES	5,06,130+ PAGE LIKES	1,31,08 PAGE LIKES	2,67,435 + PAGE LIKES	3,00,330+ PAGE LIKES	36,193 PAGE LIKES	2,50,19+ PAGE LIKES	39497 PAGE LIKES
	Regular Post Eng.	Last Post updated in June, 2020	Regular Post Eng.	Irregular Post Eng.	Regular Post Eng.	Regular Post Eng.	Regular Post Eng.	Last Post updated in July, 2020	Irregular Post Eng.	Last Post updated in March, 2017
	570 Likes & 218 Comments (Avg. of Last 10 Posts)	33 Likes & 14 Comments (Average of 4 Posts)	111 Likes & 35 Comm. (Avg. of Last 10 Posts)	80 Likes & 27 Comments (Avg. of Last 10 Posts)	86 Likes & 89 Comm. (Avg. of Last 10 Posts)	232 Likes & 97 Comm. (Avg. of Last 10 Posts)	93 Likes & 54 Comm. (Avg. of Last 10 Posts)	105 Likes & 62 Comm. (Avg. of Last 10 Posts)	192 Likes & 59 Comm. (Avg. of Last 10 Posts)	102 Likes & 42 Comm. (Avg. of Last 10 Posts)
	CTA - A	CTA - NA	CTA - A	CTA - A	CTA - A	CTA - A	CTA - NA	CTA - A	CTA - A	CTA - A

ANALYSIS DONE BY ME IN THE MARKET RESEARCH:

- Analyzed both online and offline market of all the 10 Cement Companies and their demand and position in the Indian Market.
- Focused upon the sales and demand of cement bags and various other products of all the 10 Companies.
- Done Website and Social Media Handles Analysis of all the 10 Companies and suggested various improvements required on the website and social media handles of Wonder Cement.

SUGGESTIONS GIVEN BY ME AFTER THE MARKET RESEARCH:

- Language options should be added on the website.
- Feedback Area on Homepage is required on the website.
- Search Bar will be helpful for visitors on the website.
- Website DA & PA (Domain Authority and Page Authority) needs improvement.
- Website's SEO Score is 80+ which is impressive and should not get low than 80.
- Digital Assistance or Chatbot is not available on the website which is very necessary for a website.

TASK 3 - **Competitive Analysis between Top 6 Building Materials Industries in India.**

The Third Market Research Task given to me was the "Competitive Analysis between Top 6 Building Materials Industries in India".

ANALYSIS DONE BY ME IN THE MARKET RESEARCH:

- Analyzed the top 6 Building Industries in India like Visa Steel, Volvo India etc. to check and analyze the scope in these industries as well as the possibilities for the company to step up in this business too.

2. Visa Steel – Pioneering Steel Industry

(I) WEBSITE ANALYSIS

- About Us Section :

The website includes the information regarding their Industry, its vision, mission and strategy and also displays about their values and their Board of Directors.

- Sustainability Section :

The website provides all the details about their CSR Activities, Education, Health & Care, Environment, Sports and Games and Rural Development in this Section.

- Contact Us :

The website provides all the details regarding office address and query form if the visitor needs some kind of help or if he/she has any problem.

- **IMPROVEMENTS REQUIRED :**

- **No E-commerce Facility**available on the website. If a visitor wants to buy Visa Steel online via the official website, he/she is unable to do so.
- There is no kind of information available regarding their steel products and their qualities on the website.
- Limited information is given in Contact Us panel. There is no option available for a customer to buy their steels. Information regarding Office Address and Query form are only given on the website.
- Organic Traffic and Website's DA, PA are too low. They are required to be improve and E-commerce Facility is also required on the website.

4. Volvo India – Premium Construction & Equipment Industry

(I) WEBSITE ANALYSIS

• About Us Section :

The website includes the information regarding their Industry, its innovations and initiatives also displays about the latest news and trends in the industry.

• Products and Services Section :

The website provides all the details about their various products and their services in this particular section. Volvo India deals in various equipment's such as Wheel Loaders, Compactors, Rigid Haulers and many more and they also provide Uptime Services, Safety Services, Fuel Efficiency Services, Productivity Services etc. to all these products.

• Contact Us Section :

This section includes the Company's Head Office and a Get in touch facility which includes Enquiry form related to their products and services and their needs.

IMPROVEMENTS REQUIRED :

• **No E-commerce Facility**available on the website. If a person or a company wants to buy Equipment's online via the official website, he/she is unable to do so as there is no BUY NOW Type option. But there is a option in Contact Us to ask for the type of product or service you want and select the location, then a local dealer of Volvo will contact you. This option should be improve and direct At the site-Ecommerce facility should avail.

• Organic Traffic and Website's DA, PA are very good. Ecommerce Facility on the website itself will provide better results to the Industry.

SUGGESTIONS GIVEN BY ME AFTER THE MARKET RESEARCH:

- E-commerce platform is required which is not available on the website.

TASK 4 - What methods can we implement to develop an E-commerce Platform for Wonder Cement?

And, The Fourth and the Final Market Research Task given to me was "What methods can we implement to develop an E-commerce Platform for Wonder Cement?"

ANALYSIS DONE BY ME IN THE MARKET RESEARCH:

- Researched and analyzed the needs and scope of the e-commerce platform required for the company.

- It's very necessary to have an e-commerce platform on our website, as it would be helpful and easy for our customers to buy Wonder Cement online on our website. There is no need to contact other websites or other dealers to buy our cement.

SO, LET'S SEE THE METHODS WE CAN APPLY TO DEVELOP AN ECOMMERCE:

- As we already have our website, so we don't require a new domain or hosting to create an e-commerce website. We can easily integrate or add an E-commerce platform to our existing Wonder Cement Website.

- So, for integrating or adding e -commerce platform to our website, we will require the same developer who designed our website or another method is that we can also integrate e -commerce using plug -ins like WordPress, which would be a cost -effective option and also would be easily manageable.

- After adding the E-commerce platform to the website, some editing to the platform would be required. We can name our e-commerce platform as **SHOP NOW.**

- The next step would be adding various products and categories of Wonder Cement so that when the customer clicks on **SHOP NOW** Section, he should be redirected towards various products of Wonder Cement.

- After the customer chooses his/her Product, 2 options will be shown to the customer. First option is that the customer can buy Wonder Products from his/her nearby dealers also if he wish too. After selecting the product, the customer will get a list of nearby dealers who have the particular product which he wants. The customer can easily choose their nearby dealer and can purchase the product from them. At the same time, as the customer chooses his/her dealer, the selected dealer will also get an notification on mail, text etc. regarding the product orders and other customer details.

- But, if the customer wish to buy Wonder Products in online mode only, then comes the second option that is as soon as the customer chooses his/her product, the product must reach to Add to Cart so that if the customer wants more product so he/she can select.

SO, LET'S SEE THE METHODS WE CAN APPLY TO DEVELOP AN ECOMMERCE:

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- But, if the customer wish to buy Wonder Products in online mode only, then comes the second option that is as soon as the customer chooses his/her product, the product must reach to Add to Cart so that if the customer wants more product so he/she can select.

- After selecting the product, the customer will be asked for their delivery address where they want their product to be delivered.

- Then the next option would be Payment Options. There would be an option of easy checkouts through Paytm or UPIs or CODs etc. so that the customer can easily buy the products from the website.

- After buying the product, the customer can easily track their product on **YOUR ORDERS** panel which would be a sub-domain of **SHOP NOW** Platform.

So, these are the several steps which we can use to integrate an E-commerce platform on our Wonder Cement website.

HOW WE CAN PROMOTE OUR WEBSITE'S E -COMMERCE PLATFORM ON SOCIAL MEDIA?

- As Wonder Cement has a great presence on different Social Media platforms i.e., Facebook, Instagram, LinkedIn and Twitter, it would be easy to promote our e -commerce platform on these platforms.

- We can easily promote and also generate leads/customers from our Social Media Platforms to our E -commerce platform by using **SHOP NOW CTA** (Call-to-Action Feature) which will directly redirect our customers to the E-commerce platform our website.

- Also, We can promote our E -commerce website in offline mode also by sharing our website's **QR CODE** in newspapers, billboards, print ads etc.

SUGGESTIONS GIVEN BY ME AFTER THE MARKET RESEARCH:

- Suggested both automated and manual methods to integrate the e-commerce platform to the existing website.
- Suggested Step-by-Step methods from building of the e-commerce platform to its smooth operation by providing live examples of other websites.
- Suggested the keywords required for the e-commerce platform and for the website to grow and reach better among its customers.
- Suggested offline methods also of buying the Wonder Cement from its dealers as per the customer's convenience or demand.
- Also, suggested the areas to generate leads & promote the e-commerce platform of the website through Online mediums with the use of SHOP NOW CTA (Call-to-Action Feature) on all the Social Media Platforms and through Offline mediums with the use of QR Codes in newspapers, billboards etc.

CONCLUSION

It gives me immense pleasure to say that I am very lucky as well as proud that I got an opportunity to work in Wonder Cement Ltd. as a Marketing Intern. From my internship at Wonder Cement, I literally got to know about the basics of Marketing, Branding, Market State of Indian Cement Industries, I learned many concepts of Marketing. I was able to get a better understanding of how to enhance better customer experience and customer relations with the businesses are important. I enjoyed working with the Wonder Cement team and completed all the tasks given to me with all my heart. However, I still have a long way to go in understanding the more aspects of Marketing.

Overall, I found the Marketing Internship experience to be positive & helpful to me and I am sure that I will be able to use the skills I learned here in my career.

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A

SUMMER PROJECT REPORT

ON

TALENT ACQUISITION AND TEAM MANAGEMENT

AT

IFORTIS™
WORLDWIDE

IFORTIS WORLDWIDE™

FOR

Submitted in partial fulfillment of the requirement for the award of Degree of

MASTER OF BUSINESS ADMINISTRATION

(CMAT 2020-2022)

AT

FACULTY OF MANAGEMENT STUDIES

MOHANLAL SUKHADIA UNIVERSITY

UDAIPUR (RAJASTHAN)

SUBMITTED TO:
Mr. ROHIT NAIDU SIR
CEO

SUBMITTED BY:
RIYA SHRIMAL
MBA-CMAT-III SEMESTER

DECLARATION

I hereby declare that the project report entitled "**A Summer Project Report on TALENT ACQUISITION AND TEAM MANAGEMENT at IFORTIS WORLDWIDE™**" under the guidance of **Mr. Rohit Naidu Sir**, (CEO of Ifortis Worldwide™ - Reporting Manager), is being submitted in partial fulfillment of the requirement for the award degree of Master of Business Administration, **Faculty of Management Studies**, MLSU Udaipur.

The content of this project is based on the work done by me during the training period. It is my original work and the same has not been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes to any other organization or university by any other person.

Date: May 20th, 2022

Place: Udaipur

RIYA SHRIMAL

PREFACE

Summer Training is essential for the fulfillment of MBA curriculum. It provides an opportunity to the student to understand the industry with special emphasis on the skill development and analyzing practical problems through applications of Management concepts. This Internship provided me the opportunity to demonstrate application of my knowledge, skills and competencies.

This document contains chapters that explain different aspects of experiences I got through internship period. Therefore, it contains basic information about the training and my opinions about the overall internship period considering the whole experience.

The Summer Project Report is divided into following parts:
The first part is related to the Introduction of Company's profile, its vision, mission, values and services with explaining in detail about the company, elaborating the services rendered by it.
The second part is about Title of the report i.e., Talent Acquisition explaining Recruitment, Selection, Training & Development and Team Management in reference to it.

The third part is related to Roles and Responsibilities performed by me as a Human Resource Management Trainee relating to Talent Acquisition and Team Management and my Achievements during the tenure.

The last part of the Report includes Observations, Challenges, Recommendations, Suggestions, Conclusion and Bibliography.

ACKNOWLEDGEMENT

"It is not possible to prepare a project report without the assistance and encouragement of other people. This one is certainly no exception."

On the very outset of this report, I would like to extend my sincere & heartfelt obligation towards all the personages who have helped me in this endeavor. Without their active guidance, help, cooperation and encouragement, I would not have made headway in the project.

I want to thank the most important persons of this project i.e., the Chief Executive Officer of the company, Mr. ROHIT NAIDU SIR- Reporting Manager who have spared time for giving me guidance, support and their views for my summer project. Their sincere attitude towards me and my project has really helped me.

I hereby take this opportunity to add a special note of thanks for Prof. MEERA MATHUR Ma'am who undertook to act as my mentor despite their many other academic and professional commitments. Without their insight support and energy, this project would not have kick-started and neither would have reached fruitfulness.

I am extremely thankful and pay my gratitude to Prof. HANUMAN PRASAD SIR and Mrs. POOJA DEVIJA Ma'am for their valuable guidance and support on completion of this project in their presence, and to my parents, friends, library and staff members who helped me in collection of data, resources, materials and in its processing as well as in drafting manuscript. The project is dedicated to all those who helped me while doing this project.

RIYA SHRIMAL

INDEX

S. No.	Title	Page No.
I.	Declaration	(i)
II.	Preface	(ii)
III.	Acknowledgement	(iii)
IV.	Traineeship Certificate	(iv)
V.	Executive Summary	1
VI.	**CHAPTER- 1**: Company Profile	
	• Introduction	2
	• Mission, Vision and Values	3
	• Services	4-5
	• Process	6
VII.	**CHAPTER-2**: 1. TALENT ACQUISITION	7-8
	• Concept of Recruitment	9-12
	• Concept of Selection	13-15
	• Concept of Training & Development	16-17
	2. TEAM/ TALENT MANAGEMENT	18-20
VIII.	**CHAPTER-3:** ROLE AS AN HRM TRAINEE	21-22
	• Talent Acquisition at IFORTIS WORLDWIDE™	23-27
	• Team Management at IFORTIS WORLDWIDE™	28-29
	• Achievements	30-31
IX.	Observations	32
X.	Challenges	33
XI.	Suggestions	35
XII.	Conclusion	36
XIII.	Bibliography	37

CERTIFICATE

IFORTIS™ WORLDWIDE

A subsidiary of **American Ruler Private Limited**

ISO 29993:2017

12th July 2021

TO WHOM IT MAY CONCERN

This is to certify that **Ms.RIYA SHRIMAL** bearing code: **IW21HR-A000003** has successfully completed an internship with **IFORTIS WORLDWIDE** as a **Human Resources Management Trainee** in the Human Resource Department from **19/05/2021** to **10/07/2021**.

Top Skills Covered:

- Talent Aquisition
- HR Administration & Shared services
- Communication
- Talent Management & Development
- Employee Relations & Risk Management
- HR Information Management

Besides showing high comprehension capacity, managing assignments with the utmost expertise and exhibiting maximal efficiency, he/she has also maintained an outstanding professional demeanor and showcased excellent moral character throughout the internship period.

We hereby certify that the candidate's overall work is **excellent** to the best of our knowledge.

Wishing the candidate all the best for his/her future endeavors.

For **IFORTIS WORLDWIDE**,

Chief Executive Officer

AMERICAN RULER PRIVATE LIMITED
No 704, Karuvikulam KN, Sankarankovil,
Tirunelveli, Tamilnadu,
INDIA. 627 754

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AMERICAN RULER PRIVATE LIMITED

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RIYA SHRIMAL

FOR RANKING

PERFORMER

IN THE CATEGORY OF

INNOVATIVE HR LEADER

FOR THE MONTH JULY 2021

Rohit Naidu S
Chief Executive Officer

An Initiative by

IFORTIS™ WORLDWIDE

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EXECUTIVE SUMMARY

During my internship I gained practical knowledge on how the human resource division of an organization operates and coordinates its activities to ensure smooth functioning of the organization at all levels by ensuring right numbers of people are available at the right time to do the right job. It involved identifying individuals with right set of capabilities for the organisation.

In order to achieve the goals or objectives of an organization, it needs to acquire or recruit people with requisite skills, qualifications and experience which is known as Talent Acquisition. It is a function of Human Resource Department.

As success or failure of an organization is largely dependent on the caliber of the people working therein. I have also gained insight into the working culture of the organization and observed how one can handle its employees with value and empowerment to ensure they are motivated to give their best to the organization.

I got to learn that why Talent Acquisition is important as finding and hiring the right people is a crucial element of an organization's business plan and it directly affects the company's future success with its proper management by means of continuous engagement and communication. I created and managed the team at my own by Recruiting, Selecting and Training on the behalf of the company to get things done and accomplish the desired goals set by the company. By timely interactions and communication with team, I managed to achieve the targets.

It was pleasure working with IFORTIS WORLDWIDE™, where I got the chance to apply my theoretical knowledge and skills practically with implementation of different strategies. I came across understanding the behaviour of different candidates. The best part in the Talent Acquisition for me was to Interview the different set of candidates from different backgrounds as a part of my role as an HRM Trainee. There were some challenges too where some of the teammates backed off due to some personal reasons and there I learnt how to deal with such situations, how to retain and secure them. Under this Internship I also contributed towards the mission of the company "Making Outstanding self- reliant Women Leaders" for the nation.

COMPANY PROFILE- IFORTIS WORLDWIDE™

#MorePowerToWomen #BuildingTheBetterFuture #MakingWomenSelf-Reliant #LeadersOutOfLeaders #StandOutOfTheCrowd #WeAreMore

ABOUT-

- IFORTIS WORLDWIDE™ has grown into an international contestant in software engineering with wide-ranging expertise in all the areas needed for reliable software development. IFortis Worldwide™ has grown into one of India's leading companies.

- IFortis Worldwide™, a wholly owned subsidiary of American Ruler Private Limited, is a well-established, Tirunelveli-based company which **provides top-notch HR Consultancy, Information Technology, and Marketing services to clients across the globe**.

- Since its inception, IFortis Worldwide™ has believed in continuous evolution, not only by broadening its horizons from technical to managerial services, but also by expanding this platform globally to better serve the needs of its customers.

- With a head-strong team of self-reliant women, IFORTIS WORLDWIDE™ delivers IT projects to businesses and technical solutions along with intuitive services in HR consultancy that improve business efficiency.

- IFORTIS WORLDWIDE™ believes that ethical management is not only a tool for responding to the rapid changes in the global business environment, but also a vehicle for building trust with its various stakeholders including customers, employees, business partners and local communities.

- With an aim to become one of the most leading companies in the world, IFORTIS WORLDWIDE™ continues to train its employees and operate monitoring systems, while practicing fair and transparent corporate management. As a result, IFORTIS WORLDWIDE™ is now one of India's leading corporations.

MISSION & VALUES

(Youthshouldlead)

As a prominent global corporation, it pledge to act responsibly.

MISSON- #UpskillingTheGlobalWorkforce

The world is a planet of a billion dreams, aspirations, and most importantly, opportunities. IFORTIS WORLDWIDE™ has followed the road of inclusive development to address the needs of the world's youth in order to make these visions a reality.

3 E'S OF THE MISSION= Enhanced Employee Engagement

= Enhanced Employee experience design

= Enhanced Mentoring on a one-on-one level.

VISION- To be a global firm of uniquely skilled executives who can build a better future.

VALUES- The values that define IFORTIS's spirit

IFortis Worldwide™ believes that living by strong values is the key to good business. That's why these core values, along with a rigorous code of conduct, are at the heart of every decision the company makes.

At IFORTIS they still innovating, creating technology that breaks down old and new barriers, and helping people to do what they cannot. It is continued to be driven by mission, so it ensures that people and what they care about are at the centre of everything they create.

7W PRINCIPLES OF IFORTIS WORLDWIDE™

- We respect the dignity and diversity of individuals.
- We compete fairly in accordance with law and business ethics.
- We make customer satisfaction our top priority.
- We make efforts for the improvement of the 'quality of life' of our employees.
- We pursue eco-friendly management.
- We build relationships of co-existence and co-prosperity with business partners.
- We respect the present social and cultural characteristics and have cooperative management.

SERVICES

A challenging brief excites the IFORTIS WORLDWIDE™ team. It is all fully committed to the highest software development standards in order to achieve successful results every time. If a company requires an innovative solution, they are ready to guide you through the entire process, from concept to production and beyond.

Their mission is to truly understand the issues one is trying to solve by using the latest mobile and web technologies. In collaboration with, it creates the most optimal, intelligent and business-changing solutions.

1. ERP SOFTWARE CONSULTING & IMPLEMENTATION: A successful ERP strengthens a company's foundation by streamlining operations and improving existing procedures, lowering expenses, and allowing it to grow. The best solutions, on the other hand, require proper implementation.

2. ENTERPRISE SOLUTIONS DEVELOPMENT: From custom ERPs and accounting systems to online marketplaces and saas solutions, you need our tailored solutions that use the latest tech, while being scalable and well-integrated.

3. INDUSTRIAL AUTOMATION & IOT APPLICATIONS: With decades of experience designing and developing data monitoring and tracking systems for businesses around the world, our in-depth industry knowledge and strong expertise in automation and IoT applications allows us to help your business' digital transformation.

4. RFID & BARCODE DEVELOPMENT: RFID and barcode tracking is a must for businesses that need to scale and enable high efficiency, and we have the experience, tools, and technology to help you implement RFID and barcode tracking for your operations.

5. MOBILE APP DEVELOPMENT: Bring value to your customers or streamline your operations, our mobile app development services will help you incorporate the latest tech and help your business succeed in the digital age

6. UI/UX DESIGN: A great product requires excellent UI and UX design, it needs a team that can establish a transparent design process and can deliver exceptional results, and we can help you create the product as you envisioned it.

EVENTS ORGANIZED DURING 2020-2021 BY IFORTIS WORLDWIDE™ ARE:

AARAMBH:

India's biggest 2 Day Mega virtual youth festival, solving the mental health problems, after Hours and a whole host of exciting Virtual Entertainment Experiences. The much-awaited mega festival was scheduled from 05th - 06th September 2020. List of Events involves DJ Party, Magic Show, Dance, Standup Comedy, Rapping, Beat Your Anxiety.

AARAMBH 2.0 | World's First & Largest Virtual Youth Festival from 27th- 28th Feb 2021. The 2nd edition of the AARAMBH "India's First & Largest Virtual Youth Festival was organised at international level aimed at bringing together the dazzling Youths, from all over the world and providing the spotlight to make it beam even brighter! List of Events included Singing, Gaming, Fashion Show, Dance Photography, Art, Stand-up comedy, Slam poetry, Talent show and Magic show.

AARAMBH 3.0 | The 3rd edition of the World's First & Largest Virtual Youth Festival, was held on 28th and 29th August 2021. List of Digital Events in AARAMBH3.0 were Dance, Singing, Art, Photography, Rap Battle, Speech, Magic Show, Slam Poetry, Fashion Show Contest and Solution for Tomorrow.

It was made in virtual platforms with an aim to entertain, network with their people, uplift their spirit in the comfort of their homes and encourage the Social Distancing rules.

ARISE

(World's first & largest virtual school carnival held on 25th and 26th September 2021.)

It was the event organized for school going students to showcase their talents for the age group of 4 years of Age up to 18 years of age.

PROCESS AT IFORTIS WORLDWIDE™

It employs best practice processes and development methodologies as a foundation for rapid building of cutting-edge technology solutions in a structured and methodical way.

- PLANNING: It collect all the relevant information from the customer to develop custom software development solutions as per their expectation.
- DESIGNING: The system and documents are prepared as per the requirement specifications. This helps us define overall system architecture and technology stack.
- DEFINING: Once the requirement analysis phase is completed, the next step is to define and document software needs.
- BUILDING: Developers start to build the entire system by writing code using the chosen programming language, techniques, and methodologies.
- TESTING: Evaluating the quality of software with the aim of finding and fixing defects.
- DEPLOYMMENT: The final software is released and checked for deployment issues, if any.
- MAINTENANCE: According to the service level agreement, we ensure that needs continue to be met and that the system continues to perform as per the specification mentioned in the first phase.

During 2020-2021, Company was into organizing different Events at national and international levels. it organized events like AARAMBH and ARISE and also won World Records but currently, it only deals with Software Development and related services.

CHAPTER- 1 TALENT ACQUISITION

Talent acquisition refers to the process employers use for recruiting, tracking and interviewing job candidates, and onboarding and training new employees. It is a function of the human resources (HR) department.

Talent acquisition is a strategy used in recruitment that focuses on finding, attracting, hiring, growing, and retaining top talents inside an organization. Recruitment is a part of talent acquisition.

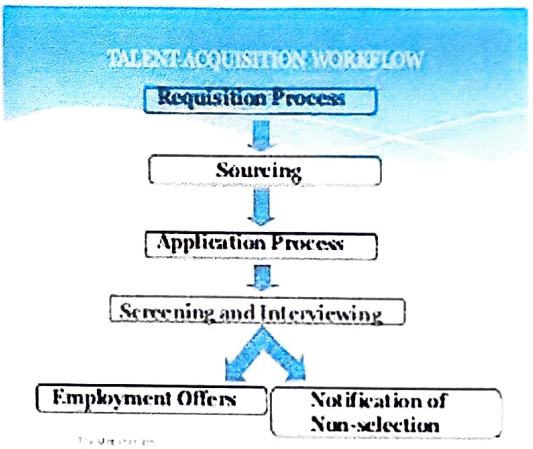
Talent Acquisition is the key to making successful staffing decisions. Talented teams make successful organizations and for that it is required to proactively acquire those talented individuals.

It is a planned and structured complex of actions the HR department must do to get the best employees.

The end objective is hiring extremely talented individuals who would be able to move the company forward.

Thus, Talent acquisition is one of the methods of recruiting and hiring new talent for the organization. And growing is the most crucial element of the hiring process.

The principal phases of talent acquisition are sourcing, attracting, interviewing, recruiting, and conducting employee onboarding.



The recruiters participating in the talent acquisition must have exquisite soft skills and be people. They should be comfortable with persons of different backgrounds to be able to recognize marvellous and matching talents. Talent acquisition is forward-thinking.

Talent acquisition tends to focus on long-term human resources planning and finding appropriate candidates for positions that require a very specific skillset.

Talent Acquisition is not a one-time event that should be set up as a structured process with a predictable flow. There are six steps that should be part of every Talent Acquisition strategy.

6 Steps of Talent Acquisition Process are:

1. **Lead Generation**: The process starts with a compelling job advert and detecting all the places where specialists in a particular industry gather.

2. **Attraction and Recruiting:** The main components of attraction and retention are Developing a strong organizational brand and culture and promoting it. Thus, they need to ensure an engaging candidate experience.

3. **Interview and Assessment**: The pre-employment assessment stage helps us to remove the application of unsuitable candidates from the very beginning and the next step is to build interview questions.

4. **References Checks:** A reference check is a process of verifying the history of the candidate by contacting his/her previous employer and colleagues. It can be helpful to check whether there are any concerns or novel impressions.

5. **Final Selection:** It is the essential step is to evaluate the candidates and select the best one.

6. **Hiring and Onboarding**: It's crucial to provide new employees with seamless onboarding because that can have a direct effect on retention rates.

Talent acquisition is one of the crucial departments of every business. The initial step that one should follow before implementing talent acquisition strategies is understanding talent acquisition. Moreover, while handling the process of talent acquisition in-house, the human resource department is a core driver to manage the whole approach.

Effective talent acquisition is often a long and finely detailed process which includes Forecasting effectively, working collaboratively, Communicating clearly and openly and being creative.

1. RECRUITMENT

According to EDWIN B FLIPPO, "Recruitment as the process of searching for prospective employee and stimulating them to apply for jobs in the organization."
Recruitment refers to the process of identifying, attracting, interviewing, selecting, hiring and onboarding employees. In other words, it involves everything from the identification of a staffing need to filling it.

The purpose of the recruitment process is to find talented and qualified individuals for the growth and development of their organization. It is part of the human resource management(HRM) department.

Recruitment in HRM is a systematic process for Hiring Talent. Recruitment aims for choosing and hiring the right the person for the right Job at the right time. The purpose of recruitment process is to gather information about the talented and qualified individuals who might be interested to work for the organization in an effective way.

Recruitment activity brings together the people who are qualified and looking for job and the organizations which are searching for prospect employees.

Recruitment is important to encourage and attract candidates and get ample amount of application for the job vacancies.

It is an effective way to create information pool about the prospective candidates who are suitable for the talent needs of the organization.

It helps to improve the selection process by proper sorting of suitable candidate for the job. It determines the appropriate candidates through the different channels of recruitment.

It helps the organization to create different sources of attracting the right candidate for the job profile.

Recruiting is the positive process of identifying, interviewing and hiring employees for jobs because it encourages people to apply for employment. When more people apply for a position, there will be more opportunities to hire the right candidate.

"Acquiring the right talent is the most important key to the growth of a business"

– Marc Benioff

PURPOSE AND IMPORTANCE OF RECRUITMENT

- Determines the Present & Future Requirements: The recruitment process assists a company in evaluating its present and future staffing requirements. It conducts a methodical examination of company operations to determine the right number of recruits necessary.

- Prevents disruption of business activities: The process of recruitment ensures that the daily activities of your organisation are carried out seamlessly. It provides businesses with all necessary human resources regularly for various job positions. The recruitment process selects individuals from a variety of backgrounds to meet the organization's needs.

- Increases Success Rate of Hiring: This approach is effective in stimulating the success percentage of the company's selecting process. It analyzes all the job applications to minimize the frequency of unqualified and exaggerating candidates. Only qualified employee's applications are advanced to the next stage of the recruitment process.

- Expands Talent Pool: The goal of recruitment is to create a wide pool of qualified candidates from which one has to choose the most qualified individual for the job.

This approach draws big groups of individuals and encourages them to apply for open opportunities in a company.

- Cost-Effective: It focuses on minimizing total costs and time spent on finding suitable employees. Recruitment is a well-organized and methodical approach in which a large number of people are given a detailed description of a job opening. A good job description attracts a large number of people at a lower cost.

Top Recruitment Skills that are required by Great Recruiters are:

A recruiter is a person in charge of filling job openings in organizations. This involves tasks such as putting together job ads, sourcing candidates, reviewing their qualifications, negotiating the salary and everything else involved in hiring new staff.

Attention to detail
Communication skills
Multitasking skills
Patience
Confidence
Teamwork skills
Being target driven
Marketing skills
Relationship building skills
Time management skills
Listening skills
Body Language skills
IT skills
Reliability

RECRUITMENT PROCESS

1. IDENTIFYING THE HIRING NEEDS: recruitment process should start with identifying the vacancies that exist followed by analyzing the job specifications including the knowledge, skills and experience needed for the role. The recruitment process starts off with recruitment planning that involves analysing and describing job specifications, qualifications, experience, and skills required to fill the open positions.

2. PREPARING THE JOB DESCRIPTION: Preparing a comprehensive job description (JD) will help you know what your potential employees must have in order to meet the demands of the role. It is a tool to ensure that company get applications from the right candidates.

3. TALENT SEARCH: Identifying the right talent, attracting them and motivating them to apply are the most important aspects of the recruitment process. The job listing should be advertised internally to generate referrals as well as externally on popular social networking sites and preferred job boards.

4. SCREENING AND SHORTLISTING: In order to move forward with the recruitment process, company need to screen and shortlist applicants efficiently and accurately.

5. INTERVIEWING: The shortlisted applications will now move through the interview process prior to receiving an offer letter or a rejection note. Depending on the size of the hiring team and their unique recruitment needs, several interviews may be scheduled for every candidate.

6. EVALUATION AND OFFER OF EMPLOYMENT: This is the final stage of the recruitment process. One should never take it for granted that the candidate will accept your offer. However, if the candidate has patiently completed all the paperwork and waited through the selection process, the odds of accepting the offer are high.

7. INTRODUCTION AND INDUCTION OF THE NEW EMPLOYEE: When applicants accept the job offer, they officially become the employees of the company. The joining date and time is communicated to the employee. Once that's done, pre-employment screening that includes reference and background checks are conducted. Once the verification is done, the employees are then introduced to the organization. The induction process of the employees then begins. During the induction process, a welcome kit is usually given to the new employees, and then the employment contract is signed.

The best way to optimize the recruitment process is to monitor and measure how well it is performing.

2. SELECTION

Selection is the process of putting right men on the right job. It is a procedure of matching organisational requirements with the skills and qualifications of people. By selecting best candidate for the required job, the organisation will get quality performance of employees.

Selection is the process of carefully screening the candidates who offer themselves for appointment so as choose the most suitable persons for the jobs that are to be filled. It is the process of weeding out unsuitable candidates.

According to Thomas H. Stone, "Selection is the process of differentiating between applicants in order to identify (and hire) those with a greater likelihood of success in a job."

By selecting right candidate for the required job, organisation will also save time and money. Proper screening of candidates takes place during selection procedure. All the potential candidates who apply for the given job are tested.

Once an adequate number of applicants have been sourced, the process of selection begins. Selection is the second step in the staffing process. This process involves choosing the candidates who best meet the qualification and have the greatest aptitude for the job.

The main objective of this process is to match individual characteristics such as ability, experience and so on with the requirements of the job.

Selection is the process of picking or choosing the right candidate, who is most suitable for a vacant job position in an organization. In other words, selection can also be explained as the process of interviewing the candidates and evaluating their qualities, which are required for a specific job and then choosing the suitable candidate for the position.

A good selection process will ensure that the organization gets the right set of employees with the right attitude.

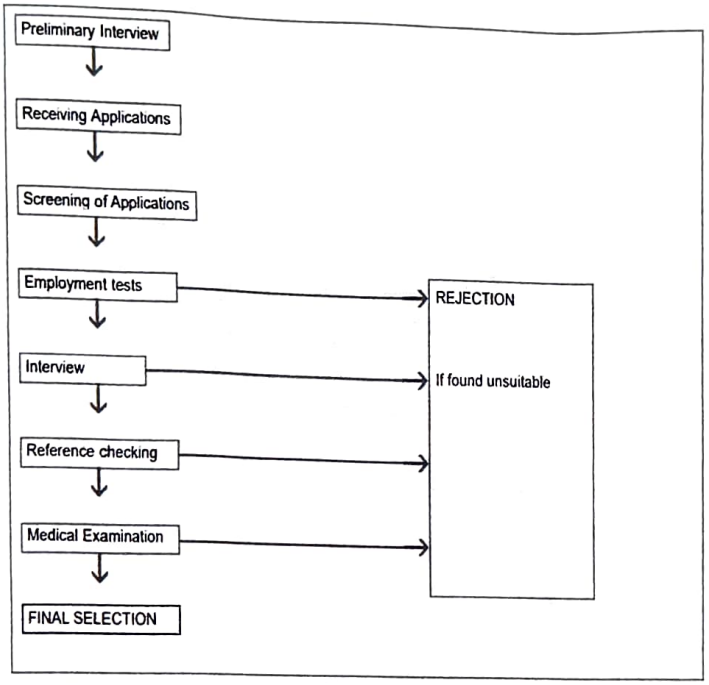
Selection is called as a negative process with its elimination or rejection of as many candidates as possible for identifying the right candidate for the position.

Selection is an important process because hiring good resources can help increase the overall performance of the organization.

For meeting the goals of the organization, it is important to evaluate various attributes of each candidate such as their qualifications, skills, experiences, overall attitude, etc.

SELECTION PROCESS

It is a process of offering jobs to desired candidates. The selection process varies from industry to industry, company to company and even amongst departments of the same company.



1. PRELIMINARY INTERVIEW: This is a very general and basic interview conducted so as to eliminate the candidates who are completely unfit to work in the organisation. This leaves the organisation with a pool of potentially fit employees to fill their vacancies.

2. RECEIVING APPLICATIONS: Potential employees apply for a job by sending applications to the organisation. The application gives the interviewers information about the candidates like their biodata, work experience, hobbies and interests.

3. SCREENING APPLICATIONS: Once the applications are received, they are screened by an interviewer who choose candidates from the applications to call for an interview. Applicants may be selected on special criteria like qualifications, work experience etc.

4. EMPLOYMENT TESTS: Before an organisation decides a suitable job for any individual, they have to gauge their talents and skills. This is done through various employment tests like intelligence tests, aptitude tests, proficiency tests, personality tests etc.

5. EMPLOYMENT INTERVIEW: The next step in the selection process is the employee interview. Employment interviews are done to identify a candidate's skill set and ability to work in an organisation in detail. Purpose of an employment interview is to find out the suitability of the candidate and to give him an idea about the work profile and what is expected of the potential employee. An employment interview is critical for the selection of the right people for the right jobs.

6. CHECKING REFERENCES: The person who gives the reference of a potential employee is capabilities, experience in the previous companies and leadership and managerial skills. The information provided by the referee is meant to kept confidential with the HR department.

7. MEDICAL EXAMINATION: The medical exam is also a very important step in the selection process. Medical exams help the employers know if any of the potential candidates are physically and mentally fit to perform their duties in their jobs. A good system of medical checkups ensures that the employee standards of health are higher and there are fewer cases of absenteeism, accidents and employee turnover.

8. FINAL SELECTION AND APPOINTMENT LETTER: This is the final step in the selection process. After the candidate has successfully passed all written tests, interviews and medical examination, the employee is sent or emailed an appointment letter, confirming his selection to the job. The appointment letter contains all the details of the job like working hours, salary, leave allowance etc.

Thus, the hiring of talented and skilled employees results in the swift achievement of company goals. When people get jobs, they are good at, it creates a sense of satisfaction with them and thus their work efficiency and quality improve. People who are satisfied with their jobs often tend to have high morale and motivation to perform better.

Proper selection and placement of employees lead to growth and development of the company. The company can, similarly, only be as good as the capabilities of its employees.

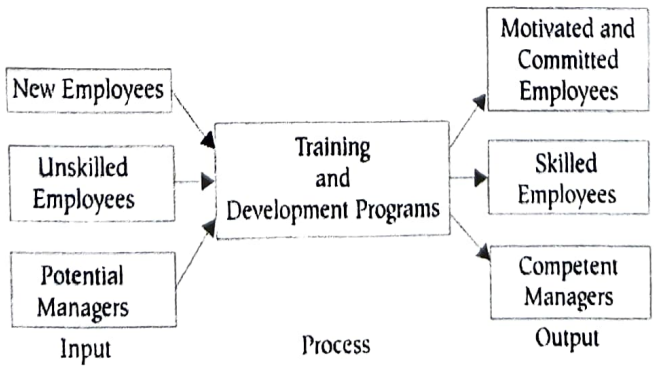
3. TRAINING & DEVELOPMENT

After initiating Selection process, it is important to train or orient the new employees so as to make them comfortable and understand their roles and responsibilities clearly and properly.

Training and development is one of the main functions of the human resource management department. Training refers to a systematic setup where employees are instructed, and taught matters of technical knowledge related to their jobs.

Training and development refer to educational activities within a company created to enhance the knowledge and skills of employees while providing information and instruction on how to better perform specific tasks.

Training is a short-term reactive process meant for operatives and process while development is designed continuous pro-active process meant for executives. In training employees' aim is to develop additional skills and in development, it is to develop a total personality. Training is absolutely essential for any business because it lowers attrition, prepares for upcoming challenges, fosters leadership, and ultimately results in growth of the company.



BENEFITS OF TRAINING& DEVELOPMENT

- It increases job satisfaction and morale among employees.
- Reduces employee turnover.
- Increases employee motivation.
- Increases efficiencies in processes, resulting in financial gain.
- Increases capacity to adopt new technologies and methods.
- Increases innovation in strategies and products.
- Training opportunities increase employee retention.
- Training is cheaper than replacing.
- Regular training is a must for remaining current with industry trends and technologies.
- When it comes to filling an open position, training a current employee in a new skill and moving said person between roles or departments is a potential cost savings rather than hiring a new one.

One of the most challenging aspects of leadership training and development is ensuring strategic alignment between training programs and business goals. It is important not just to look at business goals but also why the organisation has those goals.

Training and development in human resource management is the foundation for getting the best out of each and every employee.

It is basically developing people through Training.

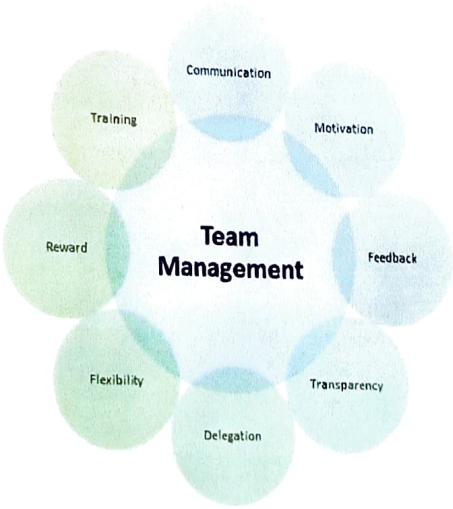
TEAM/ TALENT MANAGEMENT

Team Management refers to the techniques, methods and activities needed to manage and coordinate a group of individuals to perform a particular task.

Talent Management is defined as the methodically organized, strategic process of getting the right talent onboard and helping them grow to their optimal capabilities keeping organizational objectives in mind.

The process thus involves identifying talent gaps and vacant positions, sourcing for and onboarding the suitable candidates, growing them within the system and developing needed skills, training for expertise with a future-focus and effectively engaging, retaining and motivating them to achieve long-term business goals.

Team Management is essential so as to create a sustainable workforce.



Team management is the ability of an individual or an organization to administer and coordinate a group of individuals to perform a task. Team management involves teamwork, communication, objective setting and performance appraisals.

Effective team management involves supporting, communicating with and uplifting team members so they perform to the best of their abilities and continue to grow as professionals.

A good starting point is the Warren G. Bennis quote that "Leaders are people who do the right things; managers are people who do things right." Leadership involves creating a compelling vision of the future, communicating that vision, and helping people understand and commit to it. Managers, on the other hand, are responsible for ensuring that the vision is implemented efficiently and successfully.

Team managers oversee the activities and productivity of employees on their team. They keep operations flowing by ensuring employees carry out instructions and perform at their best levels. For a team to be truly effective, its members must unite with the same vision and be motivated to bring that vision to life. They must share clear, measurable goals, and be committed to each play their part in the overall success of the group.

Team management is a term referring to a variety of activities that bring a team together to carry them out. This means completing projects or running day-to-day tasks.

The four pillars of Talent Management Systems are:

- Recruitment – getting the top talent for a company.
- Corporate Learning – education to growth.
- Performance management – a new approach to employee reviews.
- Compensation management.

Thus, Talent Management means investing in an organization's most important resource- Its PEOPLE. It includes:

- Workforce planning: Most talent strategies begin with defining the skillsets that will be required to achieve the business's objectives.
- Recruitment: Acquiring talent consists of representing the employer brand effectively, determining where the right candidates can be reached, prescreening applicants and interviewing promising prospects.
- Onboarding: A structured onboarding program that introduces employees to the workplace culture and helps them feel connected to and comfortable with their team and organization is essential to retention.
- Training and development: While it was once considered the employee's responsibility to seek learning opportunities, many workers today expect their

employers to provide the tools, guidance, and support they need to further their careers.

- Performance management: Reviews and check-ins with team leaders help employees build upon their strengths, thereby increasing engagement and reducing turnover and making it possible for employers to meet key business objectives.
- Compensation and benefits: Fair compensation is important, but employers who want to attract and retain talent should take a holistic view of the perks and benefits they offer beyond a paycheck.

TALENT MANAGEMENT PROCESS

The talent management process consists of finding the right people and helping them discover and apply their strengths so they can work and lead more effectively. Employers who do it well generally follow these steps:

1. **Recruit**

   Source candidates from outside or within the organization using the most appropriate method, i.e., employee referrals, social networks, job boards, etc.

2. **Hire**

   Use analysis tools, pre-screening questionnaires, skills tests and interviews to narrow the list of candidates and make an offer.

3. **Develop**

   Make learning and development resources accessible and relevant to employee expectations and needs so they can do their jobs more effectively.

4. **Engage**

   Keep teams connected and focused with engagement tools that help identify potential retention risks and retain top performers.

5. **Perform**

   Monitor employee performance and collect data to make more informed workforce decisions.

6. **Recognize**

   Manage compensation equitably and reward top performers.

7. **Plan**

   Create succession plans that allow employees to advance their careers when openings become available.

CHAPTER-2 ROLE AS AN HUMAN RESOURCE MANANAGEMENT TRAINEE

To understand the role of HRM Trainee, it is required to have a detailed and complete understanding of Human Resource Management- THE DEPARTMENT WITH HUMAN TOUCH!!

Human Resource Management is the process of recruiting, selecting, inducting employees, providing orientation, imparting training and development, appraising the performance of employees, deciding compensation and providing benefits, motivating employees, maintaining proper relations with employees and their trade unions, ensuring employees safety, welfare and healthy measures.

It deals with procurement of Human Resources, Training& development and Maintenance and of human resource and building team spirit and teamwork.

It includes Recruitment and Employee Screening, Training & Development, Team Management, Leadership, Performance Evaluation, Employee Relations, Maintenance of Employee Records, Continued Education, Talent Management and Workforce Management and Communication.

The four functions of HRM are Acquisition,

Development,

Motivation and

Maintenance

SKILLS TO BE NEEDED IN HUMAN RESOURCES (HR) TRAINEE

To be an HR Trainee one should have:

- A genuine interest in developing a career in HR
- Strong verbal and written communication skills
- Strong administrative and organizational skills
- The ability to act in a confidential and sensitive manner
- A willingness to travel to regional offices on occasion
- An interest in working with people
- Be confident about gathering facts and making financial calculations
- The ability to work as part of a team
- The ability to work accurately, with good attention to detail.

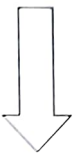
AREAS COVERED UNDER TRAINEESHIP PROGRAM

RECRUITMENT

(Planning, Recruitment Strategy, Selection, Onboarding and Induction)

MANAGING HR

(Leadership, Communication, Discipline, Teamwork and Reporting)



EVIDENCE- BASED PRACTICES

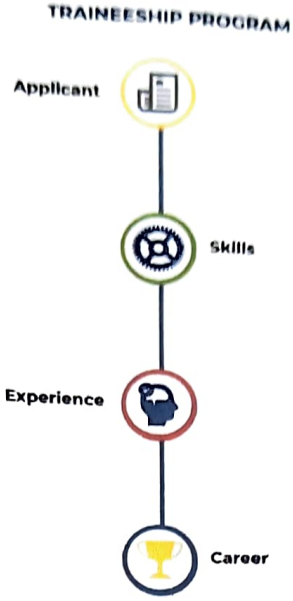
(Public Speaking, Event Management and Compliance)

Human Resource Internship was about the,

- → Updation of Trainees record with new hire information, screening resumes and scheduling interviews.
- → Managing Team and ensuring effective weekly engagement metrices are being reached by the team.
- → Coordinating different events by the company.

TALENT ACQUISITION AT IFORTIS WORLDWIDE™

As a HRM Trainee, an excitement environment to express passion and talents to develop skills was offered. It also offered an opportunity to contribute to a leading company and grow personally and professionally.



Talent Acquisition at IFORTIS WORLDWIDE™, was initiated by assignment of Statement of Purpose- 1, where,

- **PRIMARY** task included Updating LinkedIn and other social media profiles with my new role so as to make extended reach to the professional world.
- **CORE** task was "***RECRUITMENT***" where I was assigned to hire a team of 16+ (HR Trainees- Female) under me in the same name of the company.

  The 4 main phases were:

Planning

⇩

Setting up Recruitment Strategy

⇩

Scaling the process

⇩

Execution

1. ***PLANNING:*** Planning is important as it helps us to identify our definite goals. It makes us decide clearly and concretely what we need to do to achieve the targets. Under this phase, with the help of Job Description, I identified the core tasks to be undertaken with regards to receiving of an application, social media platforms to be used like LinkedIn, WhatsApp, Reference Groups, Strategies to be adopted for recruitment and selection, Use of google forms to obtain the responses, Medium or channels to be used to reach to the prospective applicants, follow-ups etc.

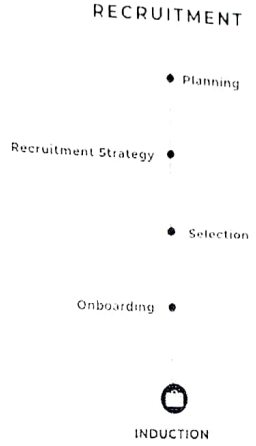
To recruit the candidates, it was crucial to bring to their notice that IFORTIS WORLDWIDE™ is hiring the interns. So, to make them aware I designed a poster containing all the detailed information.

2. ***RECRUITMENT STRATEGY***: For recruiting the best set of candidates i.e., HR Trainees, it was started from my connections. Firstly, I created an E-mail id in the name of company for further proceeding related to communicating information in future and a WhatsApp group to be in touch with the candidates personally. I started with circulation of attractive poster created by me containing all the necessary information relating with Job Description, explaining roles and responsibilities of each trainee that what is required to be done by them with google form link attached to it.

The information provided by poster was about the Internship opportunity, Duration, Benefits, Roles based on virtual Internship (work from home), and skills required. The poster was uploaded on various social media platforms.

For receiving the Applications, As I created the link to google forms for carrying recruitment drive, where interested applicants can fill the form and apply for the same and received 40 responses for the same by different applicants from different backgrounds

With the help of google forms I was able to collect the details of applicants like their Name, E-mail, Mobile No. Address, University/ College name and CVs.



3. ***SELECTION:*** After carrying out Planning and Recruitment strategies, I was permitted to hold Interviews on the behalf of the company so as to make a dedicated team at my own. For selection, I conducted Telephonic Interview for the candidates who had applied for the Internship through filling google forms after screening their CVs. I asked the questions relating to the internship profile, understanding of their attitudes, and to check their communication skills, desire to work as a team, problem solving and decision-making skills.

   Though Telephonic medium, it was quick, easy and convenient way to screen candidates and their capabilities.

As everyone was having different set of skills and expertise, it was enjoyable to assess everyone. All of them were unique in their own way and was interesting to interact with each one of them.

Based on the requirements and eligibilities of profile, I shortlisted 18 candidates as my final team based on their skills, experience and confidence.

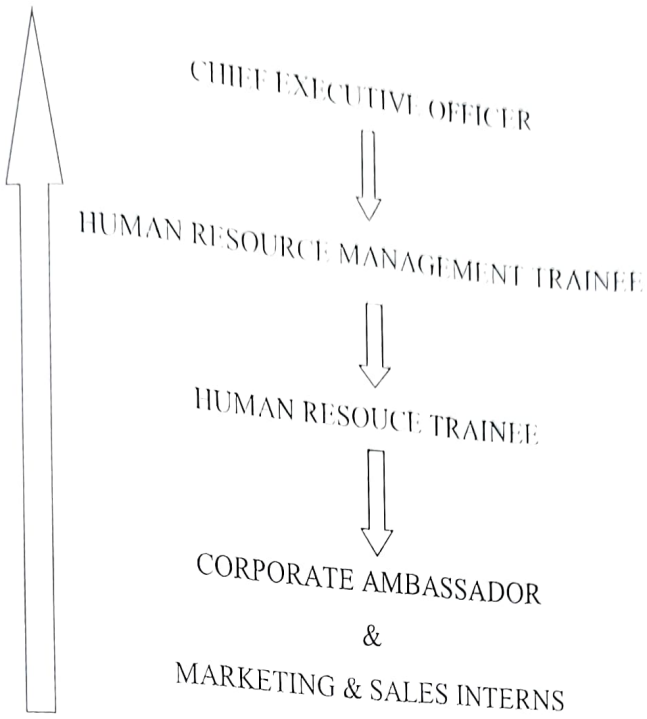
4. ***EXECUTION***: Post shortlisting the candidates, I made my Team Member to fill the final Application Form available in Web portal so as to generate their Offer Letters. The onboarding process went smooth. As it is high of expertise, I managed to interact and communicate with my team members on continual basis through personal network and WhatsApp groups, solving their queries and doubts to understand them more better and work in harmony with them.
   All the formal communication took place through official E-mail ID created in the name of the company.

After the Onboarding of Trainees, I managed to assign them their First SOP which was similar to mine. There it was where my actual role as an HRM Trainee started where my core task was to get the things done by others i.e., my team members.
According to their Statement of Purpose, they were asked to hire and make a team of 16+ candidates (Male/ Female) for the position of Corporate Ambassadors and Marketing& Sales Intern.

My team was asked to make their own team and manage them on behalf of the company. I act as their Reporting Manager for that duration and tried to solve their problems by communicating with my immediate supervisor or reporting Manager who was the CEO of the company. Under his guidance I lead my team.

There was an extended deadline too for all the trainees to achieve their target, where based on learning from past mistakes/ experiences one can reform the strategies and execute them.

COMMUNICATION FLOW was such as elaborated:

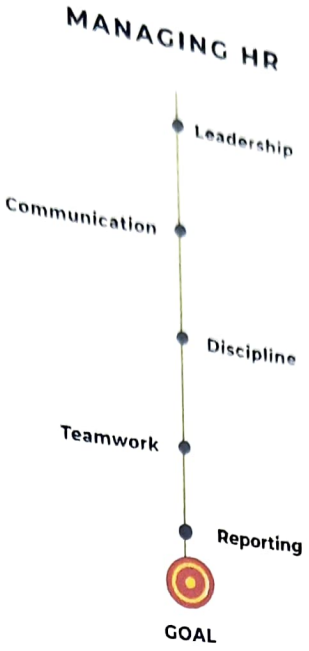


Those Corporate Ambassadors and Marketing & Sales Interns were assigned some projects, and were asked to generate sales for Events like AARAMBH and ARISE organized by the company at national and international level.

Corporate Ambassadors' task was to represent the company in their colleges/ universities and working on behalf of it by creating awareness among students about the events organized by company. Marketing & Sales Interns' task was to explain event details to their contacts, generating sales for the same by developing and implementing a digital Marketing Strategy.

As a benefit they were paid in terms of corporate experience.

TEAM / TALENT MANAGEMENT AT IFORTIS WORLDWIDE™



INTERACTION and ASSESSMENT:

I assured of being in continuous interaction through WhatsApp and phone calls with my team and updation of progress on the projects assigned to the interns. I managed to get familiar with all of them and make them feel comfortable.

I assessed each one of the teammates and their performance, asking them to adhere to the deadlines and timely completion of SOP assigned to them. But in the following weeks, I faced difficulties such as backing up off candidates from the team due to some personal reasons, got disappointed for the same as was giving my best to support, lead and guide them. There I again strengthen myself and was able to manage the team of 12 dedicated and hard-working candidates till the end of traineeship.

I was the main point of contact for my teammates and indirectly to their teammates. I always focused on Educating rather than Instructing them by clearing that it is not you and I alone, it is WE.

We altogether understood the real- time corporate world experience in challenging environment. I was able to seek individual attention of all my teammates, assess their productivity and provide the exposure to corporate world and its working.

My teammates were able to report me at any time, also asked them to prepare reports relating to their working, stating the justifications for their hiring and its timely submission for the purpose evaluating their performance. I motivated my teammates to interact with their teams so as to learn about their interests, passion, achievements, etc.

As a part of Evidence based practice, interns were asked to make presentations, as it is the part of Preparation and planning contributing towards public speaking.

At the time of Talent Management, the result of Recruiting Strategy is obtained that whether it was effective or not. Here the extended deadlines played the vital role by reforming the strategies and analyzing the mistakes previously done.

As a result, company's core values, set the tone for how to work together and treat each other in order to empower all and foster a unique team spirit.

ACHIEVMENT

IFORTIS™ WORLDWIDE AWARDS

भारत 2021

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AMERICAN RULER PRIVATE LIMITED

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FOR THE MONTH JULY 2021

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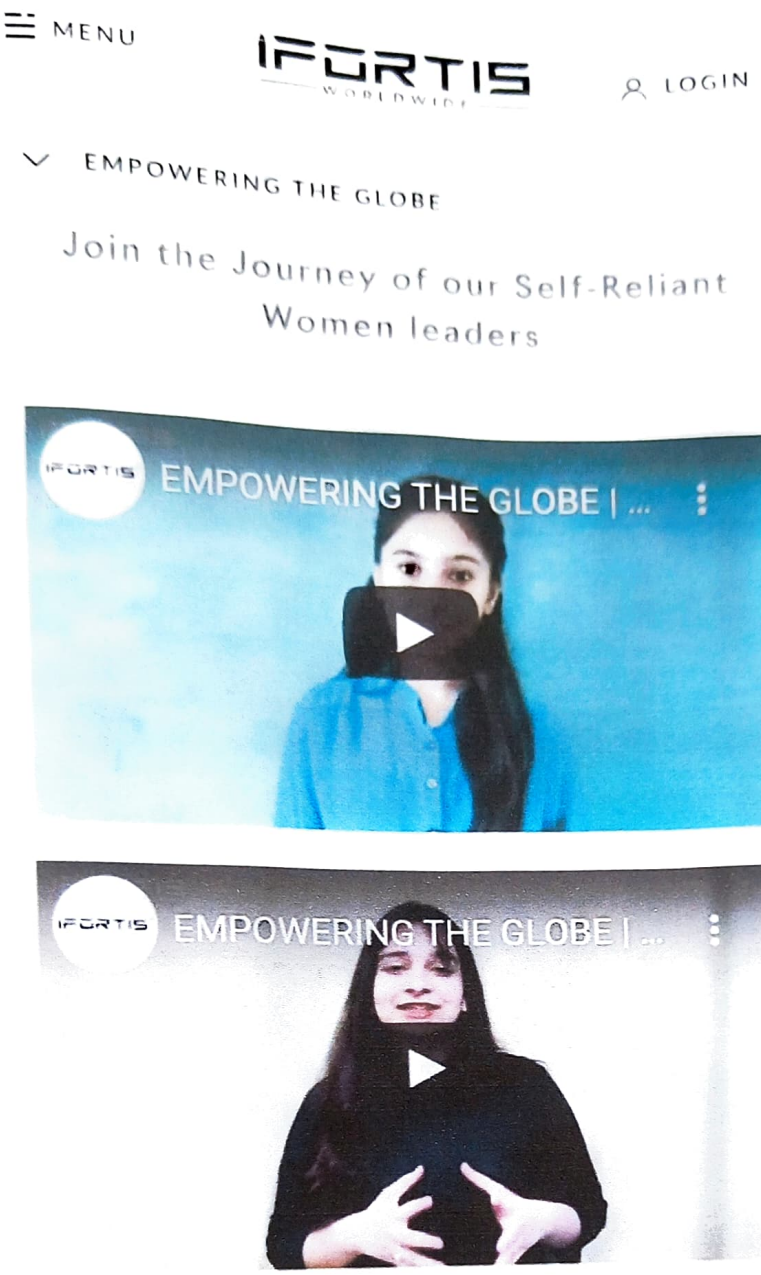

Got featured on company's official website as a recognition for being the part of "OUTSTANDINF SLEF RELIANT WOMEN LEADER FOR THE NATION"- Empowering Globe.

OBSERVATIONS/ LEARNING OUTCOME

1. The learning outcome for me was to get who is up to what and Recruitment differs from company to company for each category.

2. Effective and Comprehensive Recruitment process results in Time- saving, engaged employees and improved performance.

3. To focus on details which should be clear and unambiguous. Also, it was the work from home opportunity, so I learnt to make connections nationwide and connect to different individuals with different backgrounds.

4. Recruiting is a basic idea at its core: it entails discovering applicants and hiring them to fill available positions. Effective recruiting, on the other hand, is a mix of art and science. On one hand, it necessitates the implementation of repeatable procedures that produce consistent outcomes. On the other hand, thinking outside the box to locate your perfect individual benefits your organisation in the long run because it makes sure that the onboarding process is simple.

5. Recruitments are a critical function of the business and it is as important as any other function of the business. It is part of continuous improvement.

6. Training is one of the best ways to value your employees. Employees who are looked after will never want to look elsewhere. Any company dedicated to training its workforce will only prosper and move forward.

7. Team Management for an organization is necessary because it promotes effective team building, leads to productivity, promotes learning, focuses on employee satisfaction, and resulting of increased performance.

8. This is the high area of expertise and requires to work patiently, and our dedication towards it is very important because it is directly related to the human element.

9. Understanding Human aspect of Management and its proper functioning is crucial in success of any business enterprises.

10. Through this Internship, I was able to 'stand out of the crowd' and act as a learner, leader, guider and motivator.

CHALLENGES

1. We all know that hiring/recruiting is one of the roles of the Human Resource Department. So, in my own perspective, the biggest challenge for me was decide when it comes to hiring. Deciding whether to hire a certain applicant or not. It is really challenging because the resume does not guarantee the real attitude of that person. Hiring the right applicant is really essential.

2. In this competitive era, another challenge for me was to retain the interns within my team and motivate them to do better as some of them were unable to complete their targets, which disappointed them in a certain way. It was really essential to make them understand the importance of their work profile, roles and benefits associated with it.
3. Managing Relationships was one of the challenges as in 2022, workplace relationships are more important than ever. Due to physical barrier, there were certain issues related to less interaction.

4. Communication gap within the team was a challenge because some of the interns do not interact much. As the more one knows each other and understand each other's work, the better they can perform their own jobs.

5. Managing Communication Between Teams: Longer Communication Channel resulted as a challenge as each and every detailed information passed in the sequence as CEO (Reporting Manager for me) – HRM Trainee (myself) – HR Trainee – Corporate Ambassadors and Marketing & Sales Trainee, as it was downward flow of communication, where one has to be dependent on other for the information to be received and therefore for the actions as well. Hence, There was no direct communication between the Top Authority and the Corporate Ambassadors and Marketing & Sales interns hired during the training.

6. Tracking and increasing Team Productivity as a challenge where some interns were highly motivated and always tried to achieve the targets on time, even did more than expected but some of the interns even by extending the deadlines were unable to achieve the targets due to lack of reach to the target audiences.

7. One of the challenges faced by me was to deal with the impatient trainees regarding their Traineeship Certificates as it was discussed that certificates will be issued to them within the 15 days of duration of their completion of Traineeship because of company undergoing several audits. Later on I tried to manage them by giving them assurance for the same and provided it within the specified timeframe.

SUGGESTIONS

→ Healthy work relationships build trust in the workforce and empower employees to work together more effectively, even if they do not see each other or work together often. It will strengthen workplace relationship.

→ A welcoming approach should be communicated that the employees are welcome to approach with any matters that concern them. One should focus on building trust with employees.

→ Regular communication drives stronger relationships and helps employees learn more about how they work together and can help each other.

→ Time management is very essential and it should not be ignored at any level of the process. Achievement of goals and objectives on time is necessary.

→ There must be proper Training & Development programs organized for all so as to maintain the efficiency and productivity.

→ The true potential of an organization can only be realized when the productivity level of all individuals and teams are fully aligned, committed and energized to successfully accomplish the goals of the organization.

CONCLUSION

Based on my experiences and understanding I would like to conclude that the employees are a major part of a company's assets and taking care of them will mean taking care of the organization.

Recruitment is an integral part of the growth of the company. When recruitment takes place, the organization gets access to a pool of talent under one roof.
The right kind of recruitment will increase productivity by a huge margin because a skilled professional is set to produce more. It Ensures Transparency In The Hiring Process and Provides Consistency.
An up-to-date recruitment strategy positively impacts the bottom line in multiple ways. Better quality hires, an improved retention rate, reduced cost and enhanced job satisfaction are some of the benefits of following the best practices in the selection process. All of these benefits, when put together boost overall business success.

Top Skills covered under the Traineeship was:

- Recruitment
- Employee Relation
- Leadership
- Teamwork & Collaboration
- Communication
- Reporting
- Event Management
- Compliance

It was enjoyable to undertake recruitment process in action at my own. From this experiencing, I'll be ready to take on the working world with this sharpen skills.

One of the best thing during the internship which I liked the most is about HR, it is constantly growing and changing. It is never boring and there is always something new and different to learn with each set of individuals.

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ANALYSIS OF VARIOUS MICRO MARKETS FOR ENHANCING THE CUSTOMER EXPERIENCE AT

ICICI Bank

A

Project Report submitted

in partial fulfillment

for the award of the Degree of

MASTER OF BUSINESS ADMINISTRATION

(2020-2022)

Under the guidance of:

Mr. Shantanu Singh Rathore

ICICI Bank

Submitted by:

Mohit Pagaria

(M.B.A., CMAT)

FACULTY OF MANAGEMENT STUDIES

MOHANLAL SUKHADIA UNIVERSITY

UDAIPUR, RAJASTHAN

INDEX

- CERTIFICATE OF INTERNSHIP 4
- DECLARATION 5
- ACKNOWLEDGEMENT 6
- PREFACE 7
- INDIAN BANKING SYSTEM 8
  - DEFINITION OF BANK
  - STRUCTURE OF INDIAN BANKING SYSTEM
- INTRODUCTION OF ICICI BANK 9 - 16
  - COMPANY PROFILE
  - HISTORY
  - SUBSIDIARIES OF ICICI BANK
  - PRODUCT PORTFOLIO
  - KEY COMPETITORS
  - SWOT ANALYSIS OF ICICI
- INTRODUCTION OF OUR MICRO-MARKET – UDAIPUR 17 - 18
- MAJOR DOMINANT INDUSTRIES IN UDAIPUR 19 – 21
- OBJECTIVES 22
- RESEARCH METHODOLOGY 23
  - DATA COLLECTION
- MICRO MARKET ANALYSIS 24 - 27
- CONCLUSION 28
- RECOMMENDATIONS & SUGGESTIONS 29
- BIBLIOGRAPHY 30

CERTIFICATE OF INTERNSHIP

5/22/22, 8:51 PM Gmail - ICICI BANK Summer Internship Completion Letter

Gmail

Mohit Pagaria <mohitpagaria110@gmail.com>

ICICI BANK Summer Internship Completion Letter

2 messages

Sidharth Gupta /HRMG/IBANK/DLI <sidharth.gupta@icicibank.com>
To: "mohitpagaria110@gmail.com" <mohitpagaria110@gmail.com> 13 July 2021 at 17:38

Dear Mohit Pagaria,

Greetings from ICICI Bank!

Congratulations on successfully completing your internship with Retail Banking Group at ICICI Bank from May 17, 2021 to June 30, 2021. This is to certify that during this period you worked under the guidance of Shantanu Rathore.

We hope you had a great learning experience and wish you luck for your future endeavors.

Kind regards,

Sidharth Gupta

Manager

Human Resources Management Group

ICICI Bank

"Print this mail only if absolutely necessary. Save Paper. Save Trees."

"The information contained in this e-mail and any attachments to this message are intended for the exclusive use of the intended recipient and may contain proprietary, confidential or legally privileged information. If you are not the intended recipient, please note that you are not authorised to disseminate, distribute or copy this e-mail or any parts of it or act upon/rely on the contents of this e-mail in any manner. Please notify the sender immediately by e-mail and destroy all copies of this e-mail and any attachments. Please also note that ICICI Bank or its subsidiaries and associated companies, (collectively"ICICI Group"), are unable to exercise control or ensure or guarantee the integrity of/over the contents of the information contained in e-mail transmissions and that any views expressed in this e-mail are not endorsed by/binding on the ICICI Group unless the sender does so expressly with due authority of ICICI Group. Before opening any attachments please check them for viruses and defects and please note that ICICI Group accepts no liability or responsibility for any damage caused by any virus that may be transmitted by this email. Thank you for your cooperation."

Mohit Pagaria <mohitpagaria110@gmail.com> 10 December 2021 at 17:43
To: sshrutibansal123@gmail.com

DECLARATION

I hereby declare that the work, which is being presented in the project, entitled "**ANALYSIS OF VARIOUS MICRO MARKETS FOR ENHANCING THE CUSTOMER EXPERIENCE AT ICICI BANK**" is original & bona fide work done by me.

This project is being submitted in partial fulfillment of requirements for the award of a degree of Master of Business Administration at the Faculty of Management Studies, Udaipur (Rajasthan).

The contents of this project are based on the analysis done by me during the research period & not submitted for the award of any other degree/ diploma/ fellowship or other similar titles or prizes to any other similar titles or prizes any other Institution/ School or University by any other person.

Mohit Pagaria

ACKNOWLEDGMENT

I take this opportunity to express my profound gratitude and regards to Prof. Hanuman Prasad, Director and Chairman, FMS, MLSU, Udaipur, for his exemplary guidance and encouragement throughout the course of research.

I would like to thank Prof. Meera Mathur, Professor, FMS, MLSU; Prof. K. Saxena, Professor, FMS, MLSU & Prof. Anil Kothari, Professor, FMS, MLSU, who directed me through a wide range of resources and showing attention towards my queries that, helped me to narrow my research. The blessing, help and guidance given by them from time to time shall carry me a long way in the journey of live which I am about to embark. I would like to thank all the staff members of Faculty of Management Studies, MLSU for providing the necessary infrastructure & technical support for smooth conduct of the project work.

It was such an enriching experience to interact with the members of the ICICI Bank. I would like to take this opportunity to express my gratitude to Mr. Shantanu Singh Rathore for enlightening me on the core principles, values & purpose of the organization. I would also like to thank the entire team of ICICI Bank for their cooperation and warm reception.

Finally, I would like to dedicate this project to my parents for their love & support throughout my studies.

PREFACE

Project is very important for beginners to gain a practical knowledge about organization and the industry. Decision making is a fundamental about organization and industry. Decision regarding that what you want to do, how you want to do, what tools and techniques be used for the completion of project.

Basically, when we are playing with electronics in every part of life, I used it in my project which represent the role of digital banking services provided by the ICICI Bank in customer awareness and satisfaction.

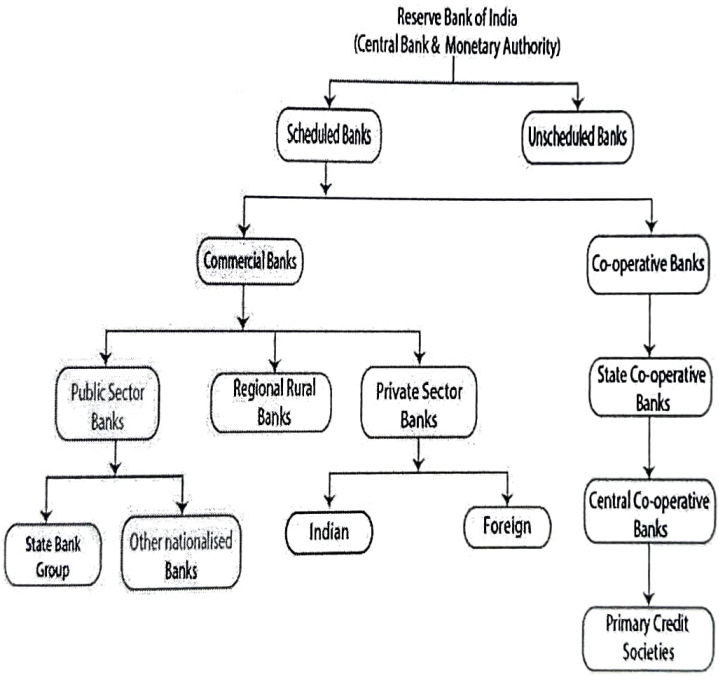
This report has been prepared after collecting the data from primary source and secondary source. I had deeply analyzed the customer awareness and satisfaction regarding digital banking services provided by ICICI Bank and successfully completed the data interpretation and analysis. The main objective of study is to find out the process to provide digital banking services to customer in the better way by the bank.

DEFINITION OF BANK

"An organization, usually a corporation, chartered by a state or federal government, which does most or all of the following: receive demand deposits and time deposits, honors instruments drawn on them, and pays interest on them; discounts notes, makes loans, and invests in securities; collects Checks, drafts, and notes; certifies depositor's checks; and issues drafts and cashier's Checks."

"A bank is financial institution licensed to receive deposits and make loans. Banks may also provide financial services such as wealth management, currency exchange, and safe deposit box. There are several different kinds of bank including retail banks, commercial or corporate bank, and investment banks. In most country, banks are regulated by the national government or central bank".

STRUCTURE OF INDIAN BANKING SYSTEM:



INTRODUCTION OF ICICI BANK

COMPANY PROFILE:

ICICI Bank Limited is an Indian multinational banking and financial services company with its registered office in Vadodara, Gujarat and corporate office in Mumbai, Maharashtra. It offers a wide range of banking products and financial services for corporate and retail customers through a variety of delivery channels and specialized subsidiaries in the areas of investment banking, life, non-life insurance, venture capital and asset management. The bank has a network of 5,288 branches and 15,158 ATMs across India and has a presence in 17 countries.

ICICI Bank is one of the Big Four banks of India. The bank has subsidiaries in the United Kingdom and Canada; branches in United States, Singapore, Bahrain, Hong Kong, Qatar, Oman, Dubai International Finance Centre, China[8] and South Africa; and representative offices in United Arab Emirates, Bangladesh, Malaysia and Indonesia. The company's UK subsidiary has also established branches in Belgium and Germany.

HISTORY:

ICICI Bank was established by the **Industrial Credit and Investment Corporation of India (ICICI), an Indian** financial institution, as a wholly owned subsidiary in 1994 in Vadodara. The parent company was formed in 1955 as a joint-venture of the World Bank, India's public-sector banks and public-sector insurance companies to provide project financing to Indian industry The bank was founded as the Industrial Credit and Investment Corporation of India Bank, before it changed its name to ICICI Bank. The parent company was later merged with the bank. ICICI Bank launched internet Banking operations in 1998.

SUBSIDIARIES OF ICICI BANK:

Domestic	International
• ICICI Prudential Life Insurance Company Limited. • ICICI Lombard General Insurance Company Limited. • ICICI Prudential Asset Management Company Limited. • ICICI Prudential Trust Limited. • ICICI Prudential Pension Funds Management Company Limited. • ICICI Securities Limited. • ICICI Securities Primary Dealership Limited. • ICICI Venture Funds Management Company Limited.	• ICICI Bank Canada • ICICI Bank USA • ICICI Bank UK PLC • ICICI Bank Germany • ICICI Bank Eurasia Limited Liability Compa • ICICI Securities Holding Inc. • ICICI Securities Inc. • ICICI International Limited.

PRODUCT PORTFOLIO:

Loan Product	Deposit Product	Investment & Insurance
1. Auto Loan 2. Loan Against Security 3. Loan Against Security 4. Personal Loan 5. 2-Wheeler Loan 6. Commercial Vehicles Finance 7. Home Loans 8. Retail Banking Business 9. Tractor Loan 10. Working capital finance 11. Construction 12. Equipment Finance 13. Health care Finance 14. Education Loan 15. Gold Loan	1.Savings A/C 2.Current A/C 3. Fixed Deposits 4. Demat A/C 5.Safe Deposit Lockers	1. Mutual Fund 2. Bonds 3. Knowledge Center 4. Insurance 5. General and Health Insurance 6. Equity And Derivatives 7. Mudra Gold Bar

Cards	Payment Services	Access To Bank
1. Credit Card 2. Debit Card 3. Prepaid Card	1. Net Safe 2. Merchant 3. Prepaid Refill 4. Bill Pay 5. Visa Bill Pay 6. Insta Pay 7. Direct Pay 8. Visa Money Transfers 9. E-monies Electronic Fund Transfer 10. Online Payment of Direct Taxes	1. Net Banking 2. One View 3. Insta alert Mobile Banking 4. ATM 5. Phone Banking 6. Email Statements 7. Branch Network
Forex Services 1.Product and Services 2.Trade Services 3. Forex Service Branch Locator		

KEY COMPETITORS:

SBI and PNB are key competitors of ICICI Bank in this area. The reason being, both of these are government banks and enjoy the high trust of customers.

1. **STATE BANK OF INDIA (SBI):** The State Bank of India, popularly known as SBI, is India's largest commercial bank with a glorious history of more than 200 years. State Bank of India(SBI)is owned by The Government of India, is categorized as an Indian Multinational, Public sector banking, and Financial services company, with its headquarters located in Mumbai, Maharashtra.

The chapter State Bank of India Introduction gives a brief introduction about the State Bank of India (SBI). With more than 14,000 branches in India, SBI is the largest and one of the premium banking and financial services companies in India by assets, deposits, profits, branches, customers, and employees. SBI has also established and secured its roots globally with 191 foreign offices spread across 36 countries.

STRENGTH OF SBI:

- **A network of the bank:** The bank has around 198 offices in 37 countries; 301 correspondents in 72 countries, 278,000 employees, 420 million customers, and around 24,000 branches and 59,000 ATMs making it the owner of one of the largest banking networks in the world.
- **Goodwill:** The bank is one of the oldest in the region and has been having a steady inflow of customers from all income brackets. They have also had good relationships with stakeholders which have created goodwill amongst customers. Special privileges: Being one of the most popular nationalized banks, the bank has a lot of special privileges including a special act for itself.

- **Strong backing from the government:** SBI is one of the first initiatives in the government in the banking sector and since then has always been its top priority. The bank is also a partner in the e-governance project of the government.
- **A wide variety of services:** The State Bank of India has a wide variety of services like investment banking, online banking, stockbroking, rural banking, and loans amongst others.
- **Strong brand:** The bank has a very strong image amongst customers, visibility and there have been numerous instances of strong word of mouth advertising about the bank.

WEAKNESS OF SBI:

- **Limited market share growth:** Earlier when banking was not privatized SBI had undoubted leadership but with the privatization of banking, there has been a surge in the competition which has resulted in a drop in market share.
- **Bad debts:** State Bank of India has been facing the problem of being unable to resolve bad debts which have resulted from the non-repayment of loans.
- **Huge size:** After the merger with five of its associate banks, SBI has become the largest banker in India, and the network is huge with branches even in remote locations. This huge size can create serious challenges in management. There have been issues in loan repayment, bad loans, non-performing assets, and loan restructuring especially in the case of the associate banks.
- **Customer service:** Due to many salary accounts and government accounts with SBI, the branches are overpopulated creating too much dissatisfaction and frustration for users. Also customer service is known to be bad from SBI.

2. PUNJAB NATIONAL BANK (PNB):- Punjab National Bank (PNB) is a Banking and Financial service bank owned by the Government of India with its headquarters in New Delhi, India. The bank was founded in 1894. It is the second-largest public sector bank (PSB) in India, both in terms of business and its network. The bank has over 115 million customers, 11,000+ branches, and 13,000+ ATMs post-merger with United Bank of India and Oriental Bank of Commerce, effective from 1 April 2020.

WHY ICICI BANK

ICICI Bank is India's largest private sector bank with total assets of ₹. 9,188 billion on March 31, 2016, and profit after tax ₹ 97.26 billion for the year ended March 31, 2016. ICICI Bank currently has a network of 4,450 Branches and 13,766 ATMs across India. ICICI Bank offers a wide range of banking products and financial services to corporate and retail customers through a variety of delivery channels and its specialized subsidiaries in the areas of investment banking, life and non-life insurance, venture capital, and asset management.

Product Comparison: The biggest competitors of ICICI in the chosen area are SBI and PNB. The reason behind this is that both SBI and PNB are government banks and customers think them to be safe and secure and trust them with their money.

The reason behind people referring to ICICI Bank facilities are:

Better net banking facilities and faster processing better customer service facilities since the other two banks are government banks and the employees treat the customers very rudely.

- SBI leads in the Home Loan facility.

- Personal Loan: Despite ICICI having the lowest rate of interest among the three, it is the least preferred because of its high processing fees.
- Loan against property: SBI leads again despite having the highest processing fee. ICICI has the lowest processing fee.
- Gold Loan: SBI is the leader.
- Education Loan: PNB has the lowest internet rate and thus it is the most preferred.
- Mobile Banking App: ICICI's "immobile" app is the best among that of others.
- Savings Account: PNB is the leader.
- Two-wheeler Loan: ICICI's leads in this service.
- Business Loan: SBI leads here.
- Car Loan: SBI is the leader again.
- RD: ICICI is the most preferred among the three for this service.
- FD: PNB is the most preferred one.
- Net Banking: ICICI provides the best Net Banking service among the three.

The Strengths of ICICI Bank:

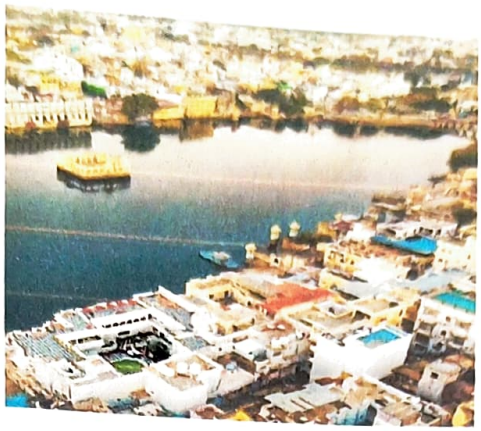
- ICICI bank is the frontrunner in the Indian Private Banking Sector.
- ICICI has a strong presence via its branches & 14000+ ATMs.
- High use of technology to make life simpler for the customers. A large number of facilities for the customers in terms of products and services with over 75,000 employees at ICICI.
- Decades of Experience in the Banking sector along with marketing have added to the brand name & has a presence in over 19 countries.

- Marketing & branding using celebrity brand ambassadors has boosted the brand's image. Services like net banking, mobile banking, NRI services, apps, using, etc offered by ICICI.
- It has been given several awards for its banking, CSR activities, and other initiatives.

1.2 The Weaknesses of ICICI Bank:

- High competition means limited market share growth for ICICI bank.
- Controversies like alleged money laundering, debt recovery, etc. hurt the brand image.

INTRODUCTION OF OUR MICRO-MARKET - UDAIPUR



Udaipur, also known as the "City of Lakes", is a city in the state of Rajasthan, India. It is the historic capital of the kingdom of Mewar in the former Rajputana Agency. It was founded in 1559 by Udai Singh II of the Sisodia clan of Rajput when he shifted his capital from the city of Chittorgarh to Udaipur after Chittorgarh was besieged by Akbar. It remained as the capital city till 1818 when it became a British princely state and thereafter the Mewar province became a part of Rajasthan when India gained independance in 1947.

The city is located in the southernmost part of Rajasthan, near the Gujarat border. It is surrounded by the Aravalli Range, which separates it from the Thar Desert. It is around 660 km from Delhi and approximately 800 km from Mumbai, placed almost in the middle of two major Indian metro cities. Besides, connectivity with Gujarat ports provides Udaipur a strategic geographical advantage. Udaipur is well connected with nearby cities and states by means of road, rail, and air transportation facilities. The city is served by the Maharana Pratap Airport. Common languages spoken include Hindi, English, and Rajasthani (Mewari).

Dubbed "the most romantic spot on the continent of India" by British administrator James Tod, Udaipur is a tourist destination and is known for its history, culture, scenic locations, and Rajput-era palaces. It is popularly known as the "City of Lakes" because of its sophisticated lake system. It has seven lakes surrounding the city. Five of the major lakes, namely, Fateh Sagar Lake, Lake Pichola, Swaroop Sagar Lake, Rangsagar, and Doodh Talai Lake have been included in the restoration project of the National Lake Conservation Plan (NLCP) of the

Government of India. Besides lakes, Udaipur is also known for its historic forts and palaces, museums, galleries, natural locations and gardens, architectural temples, as well as traditional fairs, festivals, and structures.

The Udaipur economy is primarily driven by tourism, though minerals, marble processing, chemical manufacturing and development, electronic manufacturing, and the handicraft industry are also contributors. Udaipur hosts several state and regional public offices, including offices of Director of Mines and Geology, Commissioner of Excise, Commissioner of Tribal Area Development, Hindustan Zinc Limited, and Rajasthan State Mines and Mineral Corporation Limited. Besides, Udaipur is rising as an educational hub as well, with 5 Universities, 14 colleges, and more than 160 high schools. Udaipur is home to IIM Udaipur, the fifth-best management institution in the country according to the NIRF ranking released by the MHRD.

Udaipur is located 403 kilometers southeast of the capital of the state Jaipur, Rajasthan, and 250 kilometers from Ahmedabad, Gujarat. It is situated in the southern region of Rajasthan. Udaipur is truly an exquisite city with ample natural splendor set at every nook and corner. It is amidst the stunning Aravalli Ranges of Rajasthan, India, and is known for its vivid fine-looking lakes, also called 'the city of lakes. The captivating lakes in attendance everywhere make a flawless milieu around the city as well as sets upon many hues, colors, and smiles on many people.

This exotic city is full of palaces, temples and Havelis present far and wide. The presence of greenery creates a sense of charm and harmony. It's famed for its heritage and culture around the globe and acts as a center for the performing arts, painting, and crafts. Udaipur is now looked upon and counted among the romantic cities of the World and subsequently called the 'Venice of East.

Udaipur city is governed by Municipal Corporation which comes under Udaipur Metropolitan Region. The Udaipur city is located in the Rajasthan state of India. As per provisional reports of Census India, the population of Udaipur in 2021 is approximately 6,08,246; of which males and females are 3,15,485 and 2,92,941 respectively.

MAJOR DOMINANT INDUSTRIES IN UDAIPUR

- **HANDICRAFT INDUSTRIES:** Handicraft Item Dealers in Udaipur Rajasthan are available in plenty and hence within an easy and accessible range of their customers. One of the oldest forms in India is Dhokra, which still has a very popular demand in the market. Ceramic art, Brass broided coconut shell craft, Papier-mâché, Marquetry is a couple of common handicraft categories. The price of handicraft work is generally higher than those made with the help of machines as a lot of effort goes into making every piece of art.

- **SARAFA BAZAR (GOLD AND SILVER MARKETS):** The silver jewelry, handicraft items, and rustic wooden articles are abundantly available here. The styles of jewelry are purely exclusive. The ornaments have Minakari, Kundan, and Polki work on them. The designs are in zinc and silver with precious gems like ruby, sapphire, and emeralds which give a royal touch to Rajasthan's rich culture. Hand-crafted items in ivory, wood, lac, brass, zinc silver, and much more can be found here.

- **KRISHI MANDI:** Krishi Upaj Mandi in Udaipur-Rajasthan is one of the leading markets for all types of Wheat Wholesalers, Wheat Grain Wholesalers, Food Grain Wholesalers, Toor Dal Wholesalers, Grain Wholesalers, and much more. Krishi Mandi has a wide range of products and/or services to cater to the varied requirements of their customers. It is one of the busiest markets in the city all year round.

- **COMPUTER HARDWARE MARKET:** The computer hardware market consists of sales of computer hardware and related services by entities that provide computer hardware including personal computers (PCs), laptops and tablets, computer storage devices, peripheral equipment, etc. The computer hardware market includes servers and processors but does not include embedded systems used in automobiles and manufacturing plants. The computer hardware market is segmented into computer peripheral equipment; computer storage devices and servers; and computers.

- **TOURISM INDUSTRY:** The tourism industry has got a big boost as Udaipur has been included in the list of most beautiful cities on the globe. It is fast becoming one of the most liked holiday destinations. Udaipur gets 6th place while Jaipur and Jaisalmer bag the 6th and 8th rank respectively. Not to be left behind, Udaipur hotels have also won laurels. Among the top 25 hotels of India, the ranking of hotels of Udaipur is The Leela Palace (2nd), Taj Lake Palace (4th), and Oberoi Udai Vilas (7th). Earlier, Udaipur has been given top ranking as a leisure spot by Conde Nast Traveler India Reader award and as the most beautiful city of the world by travel and leisure magazine. At present, the Badi has only ancient fountains and a garden. The work on the Kalangan art gallery is also progressing fast. The lawns and the huge variety of colorful flowers in the Vibhuti Park near Fatehsagar Paal have also become a big attraction for tourists.

- **HOSPITALITY INDUSTRY:** The Udaipur hospitality industry has been booming over the years. Overall, it is a very healthy trend with rising Average Room Revenue (ARRs) and overnights in Udaipur. Huge investments have been made by leading hotel brands present in Udaipur, especially around the Lake Pichola area. At the same time, the heritage hotel-owners are also investing in their properties and creating more modern facilities for the guests. Realizing the growing demand, many smaller guesthouses and hotels have also come up and have been doing fairly well for the price charged. The influx of domestic tourism has surely increased over time as Udaipur has also become a getaway destination for long weekends and festivals.

- **MARBLE INDUSTRIES:** Udaipur is one of the biggest Green Marble Markets in this world. Here you will get mostly all kinds of green marble. The world-famous R.K. Marbles is situated at Kishangarh. But he also knew as Rk marble Udaipur. Because his marble mine is nearby Udaipur in Rajsamand. Udaipur Pink Marble is globally popular for its outstanding bright pink color. Udaipur Marble is recognized to be perfect for the flooring of the living space and bathroom. This marble has amazing smoothness and natural shine. It is available in various sizes, patterns, and designs. RK Marbles India is offering the world's best Quality, Udaipur Marble, in India and other countries. R.K Marbles India is a renowned marble and granite manufacturer in India.

- **TEXTILE INDUSTRIES:** Just like Jaipur, Udaipur also offers some of the finest textiles in India. There are several textile manufacturers in the city that offer a wide variety of textile designs. The residents of Udaipur are especially fond of the Rajasthani prints and designs and the textile industries established here offer these in abundance. Those who visit the place also prefer purchasing these unique prints that reflect the ethnicity of Rajasthan. Anokhi is one of the most popular textile manufacturers in Udaipur that is known for its variety as well as quality.

- **CHEMICAL INDUSTRY:** Udaipur also houses a good number of chemical industries that are known to produce quality industrial chemicals which are not only used in the city but also supplied to other parts of the country. Agarwal Chemical Industries Udaipur is among the most well-established chemical industries in the city. It was set up in the year 1971 and has come a long way since then. It manufacturers several industrial chemical products and has emerged as a big supplier of these products. Gorwara Chemical Industries Udaipur is another known name. Established in 1996 it is known to be one of the biggest manufacturers and wholesaler of Aluminium and Aluminium products in Rajasthan. Samrat Chemical industries established in 2003 in Udaipur is a major manufacturer and supplier of Resin allied products. Likewise, there are various other well-established chemical industries in the city.

- **FOOD INDUSTRY:** Udaipur also has a well-established food industry that produces a variety of food items. Various processed food items are manufactured here and supplied to different parts of the world. The namkeen, wafers, and other products manufactured here are much in demand. These products are known for their taste as well as quality. Ginger Food Product Pvt. Ltd. and Alf Frozen Foods based in Udaipur are among a few good food manufacturers in Udaipur.

OBJECTIVES

- To perform the micro market analysis of the chosen area.
- To compare the popularity of various banks present in the area.
- To compare the facilities offered by these banks.
- Analysis of the biggest local competitor in each product.
- The key competitive advantage of that competitor.
- Details of the strategy employed by the competitor in that product segment.

RESEARCH METHODOLOGY

Research Methodology

RESEACH DESIGN	Descriptive Design
DATA COLLECTION METHOD	Survey Method
Population	Respondent availing Banking Services
Sample Size	120 Respondents
Sampling Method	Non probability using Convenience Sampling
Data Collection Method	•Telephonic Surveys and Structured Questionnaire for primary data • Internet for Secondary Data

DATA COLLECTION

Types of data -

1) PRIMARY DATA:

Primary data is a type of data that is collected by researchers directly from main sources through interviews, surveys, experiments, etc. Primary data are usually collected from the source—where the data originally originates from and are regarded as the best kind of data in research. The primary data are collected through questionnaires using google forms.

2) SECONDARY DATA:

Secondary data refers to data that is collected by someone other than the user. Common secondary data sources for social science include censuses, information collected by government departments, organizational records, and data that was originally collected for other research purposes.

MICRO MARKET ANALYSIS

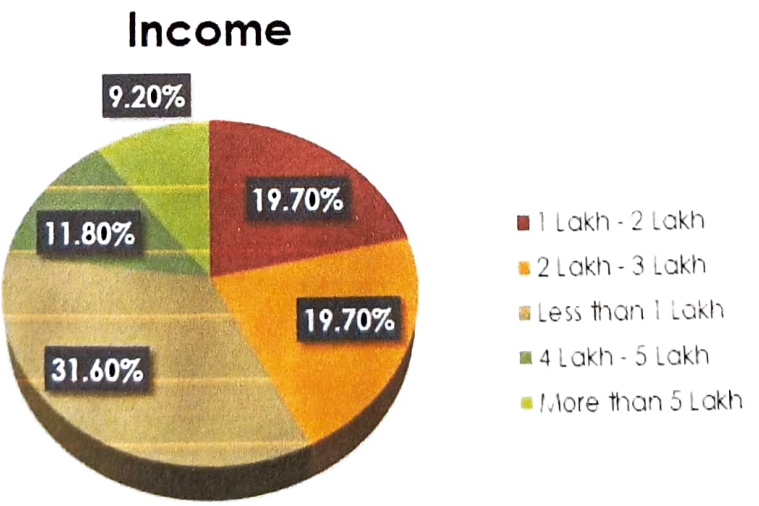
Key market customers and insights:

The majority of customers in this area are between the age of 20 – 30 years with 62.3% and the number of males is more than females with 58.4% and 41.6%. Mostly, people of this area have income less than 1lakh with 26.9%, followed by income slab of between 1lakh – 2lakh with 20.9% and income slab of 2 lakh – 3lakh with 19.4%. The majority of customers belong to the business class followed by government servants (mostly teachers) and private job professionals.

The average salary in Udaipur, Rajasthan is 272k. Trends in wages decreased by - 100.0 percent in Q1 2020. The cost of living in Udaipur, Rajasthan is 100 percent higher than the national average. The most popular occupations in Udaipur, Rajasthan are Research Analyst, Mechanical Engineer, and Accountant which pay between 121k and 807k per year.

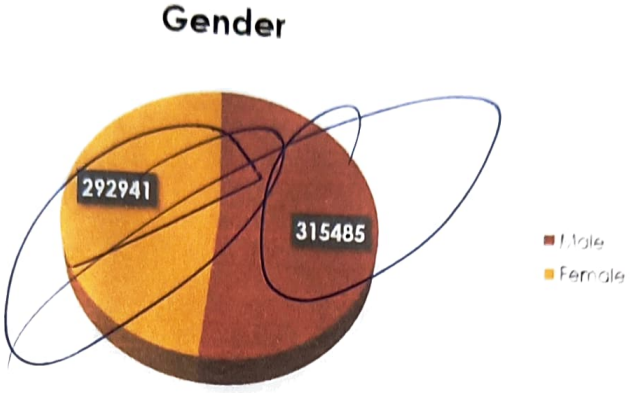
Market Information-Customers Profile

4.2.1 Based on Income:



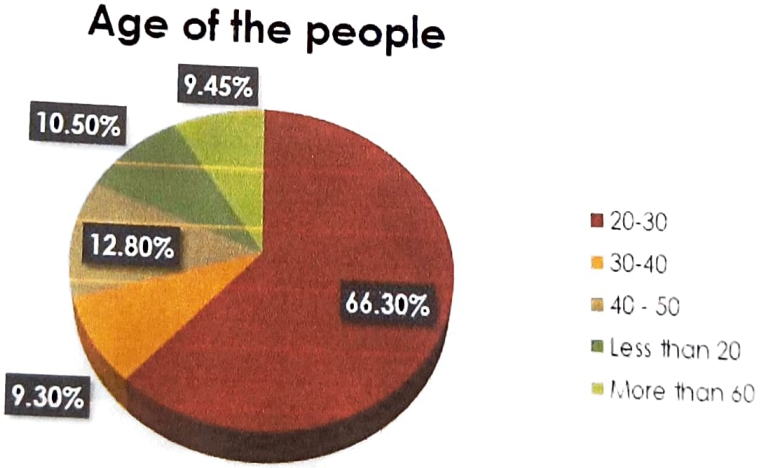
Most people of Udaipur have income less than 1 lakh with 26.9% And after that, the second most income slab is of between 1lakh – 2lakh with 20.9%. The third most income slab is between 2lakh – 3lakh with 19.4%.

4.2.2 Based on Gender:

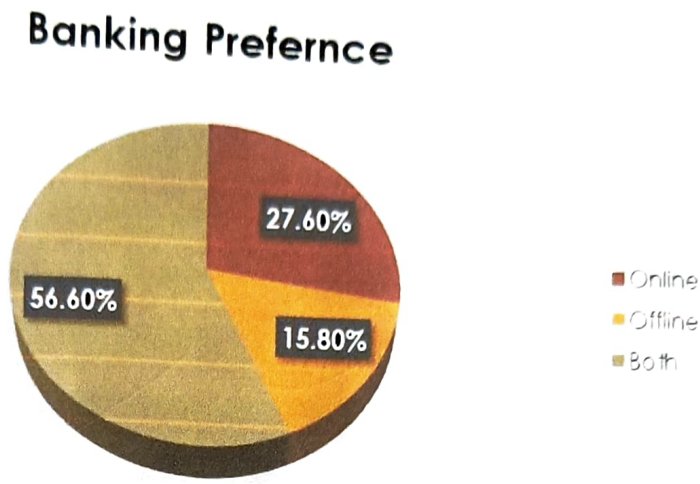


According to my research, the following is the demographic characteristic of the selected area according to gender.

4.2.3 Based on Age of the people:

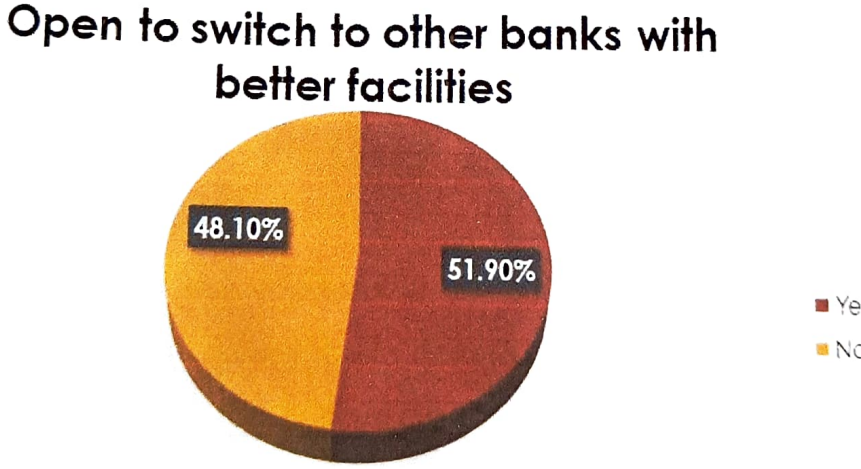


4.2.4 Based on Banking preference:



Mostly in this area, people like to use online and offline facilities both with 56.6%. After that in comparison of online and offline the online services are more used than offline services.

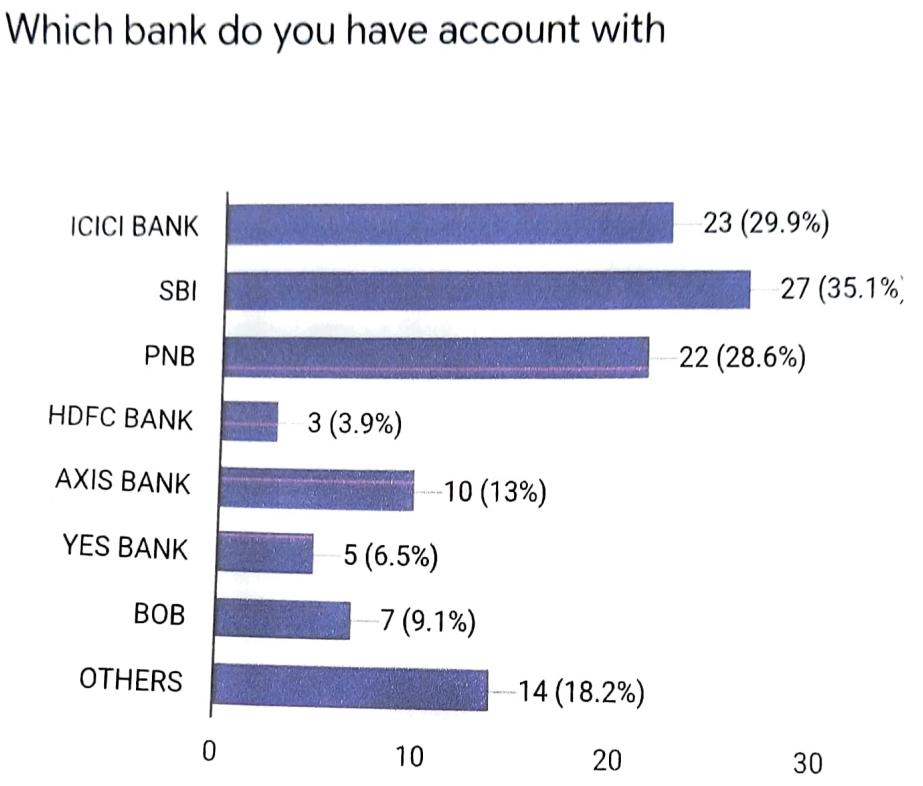
4.2.5 Based on the availability of better facilities at other banks:



51.9% of people in this area are loyal to their banks or they like the services or facilities of their existing bank and the remaining 48.1% are those customers who do not like the facilities of their existing bank but they are using it because the bank is near to their home or some other

reasons.

4.2.6 Based on Bank preferences:



In this area, most of the people have an account with SBI.

ICICI Bank is the second most preferred and the only private bank on this list.

CONCLUSION

- People are more inclined towards the digital mode of banking.
- Most of the banks preferred public sector banks rather than private sector banks.
- Old-aged people tend to use traditional banking methods rather than online therefore it is required to educate the old-aged population about digital services provided by banks.
- Should focus on insurance products due to COVID-19 pandemic.
- Providing POS machines at a cheaper rate to retail stores will increase the customer base too.
- Keep its digital banking apps i.e. iMobile, Instabiz, and Pocket bugs free and should focus on ratings and feedback of customers on App stores regarding the same.

RECOMMENDATIONS & SUGGESTIONS

- Schemes for rural population will be a key as we know ICICI has strong hold in rural areas amongst the private sector banks. Using technology driven schemes it can penetrate the rural market with ease.
- As we all aware of the current pandemic situation ICICI can focus on the insurance products as there is a 15% hike is seen in the insurance industry.
- By providing POS machines to retail stores at cheaper rates and creating a network of POS terminal e.g.: - E-Mitra will be helpful in increasing customers.
- By keeping its digital apps i.e., Imobile, Instabiz bug free will help in maintaining good customer satisfaction.
- Tie-ups with corporates for opening their employee's salary accounts will be beneficial for the bank and it'll increase in customer base.

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