



**SHRI KHANDERAI PRATISHTHAN'S  
DNYANSAGAR INSTITUTE OF MANAGEMENT & RESEARCH**

(Approved by AICTE, New Delhi, Recognized By Govt. of Maharashtra, Affiliated to S. P. Pune University)  
(AISHE Code : C - 41293, PUN Code - IMMP014030)



## Metric 3.3.1

**Number of Research Papers Published Per Teacher in  
the Journals Notified on UGC CARE List**

**2020-21**



**Director**

**Dnyansagar Institute of Management and  
Research  
Balewadi, Pune-411045**

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**Criterion III: - Research, Innovations and Extension**

**Key Indicator: 3.3 Research Publications and Awards**

**3.3.1 Number of research papers published per teacher in the Journals notified on UGC CARE list during year 2020-21**

Sr. No.	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Calendar Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal /Digital Object Identifier (doi) number		
							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
1	Working Capital Management : A Case study of Bhagyashree Packaging Ltd.	Dr. Manisha Khaladkar	MBA	Vidyabharati International Interdisciplinary Research Journal	2020-21	ISSN: 2005-4289 (Print) ISSN: 2207-6425 (Online)	<a href="http://www.vijri.org/specialissues/SP4/SP4.html">http://www.vijri.org/specialissues/SP4/SP4.html</a>	<a href="https://drive.google.com/file/d/1BL9Pb8WN8jSExL7PaQKZInbXyQF4Qy8d/view">https://drive.google.com/file/d/1BL9Pb8WN8jSExL7PaQKZInbXyQF4Qy8d/view</a>	Web of Science Listed
2	A Study of Working Capital Management in Delta Nutritives Pvt. Ltd.	Dr. Manisha Khaladkar	MBA	Vidyabharati International Interdisciplinary Research Journal	2020-21	ISSN: 2005-4289 (Print) ISSN: 2207-6425 (Online)	<a href="http://www.vijri.org/specialissues/SP4/SP4.html">http://www.vijri.org/specialissues/SP4/SP4.html</a>	<a href="https://drive.google.com/file/d/1TU3THq95WlwXdvEIU4HYWRZvCzBeGfzR/vi">https://drive.google.com/file/d/1TU3THq95WlwXdvEIU4HYWRZvCzBeGfzR/vi</a>	Web of Science Listed



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							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
3	Effect of Non-Interest Income on Bank Performance and Risk	Dr. Manisha Khaladkar	MBA	Phalanx: A Quarterly Review for Continuing Debate	2020-21	2320-7698	<a href="https://www.phalanx.in/">https://www.phalanx.in/</a>	<a href="https://www.phalanx.in/">https://www.phalanx.in/</a>	Yes
4	A study of Psychology of Employees of Zeal Education Society, Pune towards Investment with respect to Mutual Funds	Dr. Manisha Khaladkar	MBA	Our Heritage	2020-21	0474-9030	<a href="http://sansuniv.ac.in/p/our-heritage">http://sansuniv.ac.in/p/our-heritage</a>	<a href="https://archives.ourheritagejournal.com/index.php/oh/login?source=%2Findex.php%2Foh%2Fissue%2Farchive">https://archives.ourheritagejournal.com/index.php/oh/login?source=%2Findex.php%2Foh%2Fissue%2Farchive</a>	UGC Care Listed





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							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
5	A Study of Financial Performance With Respect To Loans and Advance	Dr. Manisha Khaladkar	MBA	Journal of Emerging Technologies and Innovative Research	2020-21	2349-5162	<a href="https://jetir.org/?gclid=CjwKCAjw_tWRBhAwEiwALxFPoU-wUWEwg1f8Y7czjy2f9fAW7c5Jdb2RBErDfEdmfyaN64AFopiBBoCII4QAvDBwE">https://jetir.org/?gclid=CjwKCAjw_tWRBhAwEiwALxFPoU-wUWEwg1f8Y7czjy2f9fAW7c5Jdb2RBErDfEdmfyaN64AFopiBBoCII4QAvDBwE</a>	<a href="https://www.jetir.org/view?paper=JETIR2004106">https://www.jetir.org/view?paper=JETIR2004106</a>	UGC Care Listed



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							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
6	A Study on Fundamental Analysis of Automobile Companies in India	Dr. Manisha Khaladkar	MBA	Our Heritage	2020-21	0474-9030	<a href="http://sansuniv.ac.in/p/our-heritage">http://sansuniv.ac.in/p/our-heritage</a>	<a href="https://archives.ourheritagejournal.com/index.php/oh/login?source=%2Findex.php%2Foh%2Fissue%2Farchive">https://archives.ourheritagejournal.com/index.php/oh/login?source=%2Findex.php%2Foh%2Fissue%2Farchive</a>	UGC Care Listed



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							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
7	Emotional Intelligence and Organizational Citizenship Behavior: The Mediating Role of Job Satisfaction	Dr. Asita Ghewari	MBA	South Asian Journal of Management	2020-21	0971-5428	<a href="https://www.sajm-amdisa.org">https://www.sajm-amdisa.org</a>	<a href="https://www.sajm-amdisa.org/images/stories/pdf/sajm_vol_28.4.pdf">https://www.sajm-amdisa.org/images/stories/pdf/sajm_vol_28.4.pdf</a>	UGC Care Listed
8	A Business Research Significance of Statistical Power, Level of Significance in Hypothesis Testing	Dr. Asita Ghewari	MBA	Vidyabharati International Interdisciplinary Research Journal	2020-21	2319-4979	<a href="http://www.viiri.org">http://www.viiri.org</a>	<a href="http://www.viiri.org/vol13issue1/25.pdf">http://www.viiri.org/vol13issue1/25.pdf</a>	Web of Science Listed



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9	Consumers Attitude Towards Over-The-Counter Medicines During Covid-19 Pandemic In India	Dr. Asita Ghewari	MBA	Vidyabharati International Interdisciplinary Research Journal	2020-21	2319-4979	<a href="http://www.viirj.org">http://www.viirj.org</a>	<a href="https://www.viirj.org/vol13issue1/17.pdf">https://www.viirj.org/vol13issue1/17.pdf</a>	Web of Science Listed
10	A Study Of Factors Responsible For Choice Of Fmcg Products (Dental Care Products)	Dr. Asita Ghewari	MBA	Vidyabharati International Interdisciplinary Research Journal	2020-21	2319-4979	<a href="http://www.viirj.org">http://www.viirj.org</a>	<a href="http://www.viirj.org/vol12issue2/9.pdf">http://www.viirj.org/vol12issue2/9.pdf</a>	Web of Science Listed



  
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11	A Study of Impact of Organizational Climate On Commitment Of Indian IT Sector Employees	Dr. Asita Ghewari	MBA	Punjab Institute of Management and Technology Journal	2020-21	2278-7925	<a href="https://pimtjr.in/">https://pimtjr.in/</a>	<a href="https://pimtjr.in/wp-content/uploads/2022/02/Abstract-Vol.-13-No.4-July-Sep-2021.pdf">https://pimtjr.in/wp-content/uploads/2022/02/Abstract-Vol.-13-No.4-July-Sep-2021.pdf</a>	UGC Care Listed
12	A Study On Investment Pattern Of Youngsters (Age Group 21-30)	Dr. Asita Ghewari	MBA	Punjab Institute of Management and Technology Journal	2020-21	2278-7925	<a href="https://pimtjr.in/">https://pimtjr.in/</a>	<a href="https://pimtjr.in/wp-content/uploads/2021/05/Abstracts-Volume-13.-No.-3-Special-Issue-April-May-2021.pdf">https://pimtjr.in/wp-content/uploads/2021/05/Abstracts-Volume-13.-No.-3-Special-Issue-April-May-2021.pdf</a>	UGC Care Listed



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13	Challenges To HR Professionals Due To Covid - 19 Pandemic	Dr. Asita Ghewari	MBA	International Journal of Management	2020-21	0976-6502	<a href="https://iaeme.com/Home/journal/IJM">https://iaeme.com/Home/journal/IJM</a>	<a href="https://iaeme.com/MasterAdmin/Journal_uploads/IJM/VOLUME_12_ISSUE_3/IJM_12_03">https://iaeme.com/MasterAdmin/Journal_uploads/IJM/VOLUME_12_ISSUE_3/IJM_12_03</a>	Scopus Listed
14	A Study On Awareness Of Natural Farming Vegetables And Fruits Among Consumer's In Pune City	Dr. Asita Ghewari	MBA	Punjab Institute of Management and Technology Journal	2020-21	2278-7925	<a href="https://pimtjr.in">https://pimtjr.in</a>	<a href="https://pimtjr.in/wp-content/uploads/2020/11/Abstract-July-September-issn-Vol-12">https://pimtjr.in/wp-content/uploads/2020/11/Abstract-July-September-issn-Vol-12</a>	UGC Care Listed



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15	Influence of Human Resource Development in Knowledge Management Implementation in selected enterprises in IT Sector	Dr. Rachana. R. Shikhare	MBA	International Journal of Information and Computational Science	2020-21	1548-7741	<a href="https://joics.org/">https://joics.org/</a>	<a href="http://www.joics.org/gallery/ics-3990.pdf">http://www.joics.org/gallery/ics-3990.pdf</a>	Yes



  
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16	A Pragmatic Study to appreciate how HR Measures support the implementation of EKM in IT Enterprise	Dr. Rachana. R. Shikhare	MBA	Sambodhi - Indological Research Journal of L.D.I.I.I. ( Print only )	2020-21	Print Only- ISSN: 2249-6661	<a href="https://ugccare.unipune.ac.in/Apps1/Content/Files/pdf/Sambodhi%202020-Cloned.pdf">https://ugccare.unipune.ac.in/Apps1/Content/Files/pdf/Sambodhi%202020-Cloned.pdf</a>	<a href="#">Print Only</a>	UGC Care Listed
17	Fostering Organizational Excellence In KM Environment: Innovative Perspective For Sustainable Growth Path	Dr. Rachana. R. Shikhare	MBA	International Journal of Management (IJM); © IAEME Publication	2020-21	ISSN Print: 0976-6502 and ISSN Online: 0976-6510	<a href="https://iaeme.com/Home/journal/IJM">https://iaeme.com/Home/journal/IJM</a>	<a href="https://iaeme.com/Home/article_id/IJM111124">https://iaeme.com/Home/article_id/IJM111124</a>	Scopus Listed



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18	Relationship between Wholesale Price Index and Gross Sales of Income	Prof. Swati Bhalerao	MBA	SBS International Research Journal of Management Studies	2020-21	2454-7050	<a href="https://portal.issn.org/resource/ISSN/2454-7050">https://portal.issn.org/resource/ISSN/2454-7050</a>	<a href="https://www.researchgate.net/publication/357028030_Relation">https://www.researchgate.net/publication/357028030_Relation</a>	
19	A Study of Satisfaction among Employees regarding Selection & Recruitment at Royal Enfield, Kings Autoriders	Dhananjay Bhavsar	MBA	ICEM-2021	2020-21		<a href="https://www.researchgate.net/publication/362818904_A_Study_of_Satisfaction_among_Employees_regarding_Selection_Recruitment_at_Royal_Enfield_Kings_Autoriders">https://www.researchgate.net/publication/362818904_A_Study_of_Satisfaction_among_Employees_regarding_Selection_Recruitment_at_Royal_Enfield_Kings_Autoriders</a>		







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20	A Study of innovative financial engineering in financial service sector	Nilam Naidu	MBA	A Multidisciplinary Peer Reviewed Journal	2020-21	2581-4230	<a href="https://repo.journalnx.com/nx/article/download/111">https://repo.journalnx.com/nx/article/download/111</a>		
21	A study of consumers attitude towards green marketing	Nilam Naidu	MBA	A Multidisciplinary Peer Reviewed Journal	2020-21	2581- 4230	<a href="https://repo.journalnx.com/nx/article/view/1111">https://repo.journalnx.com/nx/article/view/1111</a>		



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							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
22	Effect Of SHG-Bank Linkage Programme On Income And Savings Of Beneficiaries With Reference To Thane District	Dr. Poonam M. Khadke	MBA	Aarhat Multidisciplinary International Education Research Journal (AMIERJ)	2020-21	ISSN: 2278-5655 Impact Factor 6.236	<a href="https://aarhat.com/journals">https://aarhat.com/journals</a>	<a href="https://aarhat.com/journals">https://aarhat.com/journals</a>	



  
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23	A study of consumer feedback on provided GITS poha sample	Dr. Patil Deepali Sandip	MBA	Splint International Journal Of Professionals	2020-21	2349-6045	<a href="https://www.indianjournals.com/ijor.aspx?target=ijor:sijp&amp;volume=7&amp;issue=4&amp;article=007">https://www.indianjournals.com/ijor.aspx?target=ijor:sijp&amp;volume=7&amp;issue=4&amp;article=007</a>	<a href="https://www.indianjournals.com/ijor.aspx?target=ijor:sijp&amp;volume=7&amp;issue=4&amp;article=007">https://www.indianjournals.com/ijor.aspx?target=ijor:sijp&amp;volume=7&amp;issue=4&amp;article=007</a>	
24	Managing Students' Stress In Higher Educational Institutions	Dr.Manisha Verma	MBA	Shodh Sarita; Volume 7, Issue 28, October to December 2020.	2020-21	ISSN – (2348 – 2397)	<a href="http://sereseearchfoundation.in/">http://sereseearchfoundation.in/</a>	<a href="http://sereseearchfoundation.in/">http://sereseearchfoundation.in/</a>	UGC Care Listed



## WORKING CAPITAL MANAGEMENT: A CASE STUDY OF BHAGYASHREE PACKAGING LTD.

**M.R. Khaladkar**

Zeal Institute of Management and Computer Application, Narhe, Pune, India,  
manisha.khaladkar77@gmail.com

### ABSTRACT

*Working capital management is an important function of financial management which helps in maintaining an optimal balance between each of the working capital components.*

*The purpose of the research is to analyze whether working capital management can affect the company's profitability. A well designed and implemented working capital management is expected to contribute positively to the creation of a firm's value. "Working Capital" is the capital invested in different items of current assets needed for the business, viz, inventory, debtors, cash and other current assets such as loans & advances to third parties. Those current assets are essential for smooth business operations and proper utilization of fixed assets. The firm should maintain sufficient level of working capital to produce upto a given capacity and maximize the return on investment in fixed assets. Shortage of working capital leads to lower capacity utilization, lower turnover and hence lower profits. Working Capital, in excess of the amount required to produce to full capacity, is idle and consequently leads to decline in profits. Hence the dictum "Adequacy is a virtue, surfeit is not". The study concentrates on the main components of working capital like inventory management, accounts receivable management and cash management of Public Enterprises. The main source of secondary data was collected through Government reports, official records, journals, books, websites of Internet and financial statements, such as income statements, balance sheets of*

**Keywords:** Working Capital, Current Ass

### Introduction

According to past few years, working capital has strengthened the more importance and vital position because of profitability and liquidity. It is the most extreme and main responsibility of a firm's financial manager to maximize shareholders wealth and there profit. Here the most important silent goals of working capital management is Profitability and liquidity. Both these objectives have their own importance and significance and that's way they need proper attention. A firm need to have a balance between liquidity and profitability while performing its daily operations.

When invested in working capital with highest and lower amount will adversely affect its profitability and liquidity of any firm. Thus the correct implication of working capital is necessary (funds to be invested in various current assets), and firm have a chance of optimal level of working capital that maximizes their value. A firm will not survive if the profit is fail to notice on the other hand bankruptcy and insolvency may happen if we do not take a proper care about liquidity.

Working capital is the difference between current assets and current liabilities. Current

assets mean those all assets that can easily transformed to the form of cash within a year and all that investment which may be easily change into cash without any conflict when needed. Working capital management means "The management of the short-term investment and financing of a company". Working capital management plays a very important role in the firms growth and profitability and it directly affect its influence on firms growth and profitability because of the success and failure of a firm. Profitability and liquidity that directly effect of the firm because they are important and vital part of the corporate finance. The goal of our study is to give the empirical evidence of the impact of profitability on firms performance. It is important because its measure the companies ability to pay off short term debts and expenses.

Working capital is the lifeblood of any business. Important role of Working capital management is to provide higher return on investment, improves the companies credit profile and solvency also gives the higher profitability and liquidity. To start business operations or to carry out its activities in efficient manner firm needs working capital to



meet its short run functions. It is the part of firm's current assets, which are converted into cash within a year or less than year. Working capital management is helpful for the day-to-day activities rather than long-term investment decisions.

Here in this lookout, working capital components (WCC) are cash, cash equivalents, inventories, accounts receivables, and accounts payables. For all industrial enterprises, Investment in the working capital components is very important in order to powerful financially. To restrict credit sales a firm has to reduce its account receivables and can collect its receivables in a shorter time and increase the cash inflows. However, cause for falling the profit is rigid sales policies and also low credit sales that would lead to loss of sales. On the other hand, to increase the sales high inventory levels and flexible credit sales policy are contributing. That's way sales on credit allow the customer to examine the product before paying or using, it may automatically the increase sales.

#### Literature review

Ukaegbu (2014) In the period of 2005-2009 the researcher said that, manufacturing firms in Egypt, Kenya, Nigeria and South Africa that they represent three different groups based on their industrial performance and also investigates the relationship between (WCM) working capital management and profitability which classified that has been provided by United Nations Conference on the Trade and Development.

On the base of researcher ukaegbu the selected countries for the analysis are classified as prognostic (Egypt), achievers (South Africa), and falling behind (Kenya and Nigeria) based on the African countries industrial performance indicators. Thus the result indicates that firm profitability is positively related with inventory turnover while it negatively related with receivable collection period. However, according to the past researcher accounts payable period and profitability is found to be negative between associations except for the Egypt only.

In addition, he said an inverse relationship between cash conversion cycle(CCC) and

firm profitability was a clear evidence for the study in selected African countries in despite of different industrial general types. Despite different industrial general types, the result of the general expectation of negative relationship between (WCM) working capital management and profitability that are not confirmative study conducted by another researcher that is Çakır (2013) for a sample of 52 manufacturing firms listed on Borsa Istanbul for the period of 2000-2010. While, the researcher proving findings he said that the facts have higher cash conversion cycle(CCC) is associated with higher profitability for the selected manufacturing firms.

When the analysis is performed by taking into account the industry differences; two sub sectors namely one is chemical and another is non-metallic mineral products which are found to exhibit significantly have negative correlation.

#### Objectives

1. To understand and analyse the relationship between working capital management and Profits of the firm.
2. To find out the effects of different components of working capital on the profits of the firm.
3. To make suggestion for improvement for the successful survival in the competition world.

#### Research methodology

Research Methodology is a process of collecting the information & helps to find out the solutions to the topic selected by the researcher. It is a systematic way of presenting information.

#### Research method: analytical research

Analytical methods are create or a methods find out how to investigates some difficulty, popularity or some reality. Analytical strategies in most cases time restricted and undertaking limited. They are used once to resolve a detailed predicament. Antagonistic to administration methods that have an effect on management of the institution in the long run.



**Data collection**

The present study is based on secondary data which covered period of 6 financial year 2013-18. The data has been collected from annual reports of Bhagyashree Packaging, various Articles, Journals, and Books dealing with the current banking scenario and research papers.

**Hypothesis**

Hypothesis that were applied to analyze the impact of working capital components on the

profitability of the firm statistically were as follows:

H 1: There is no relationship between the working capital management and the profitability.

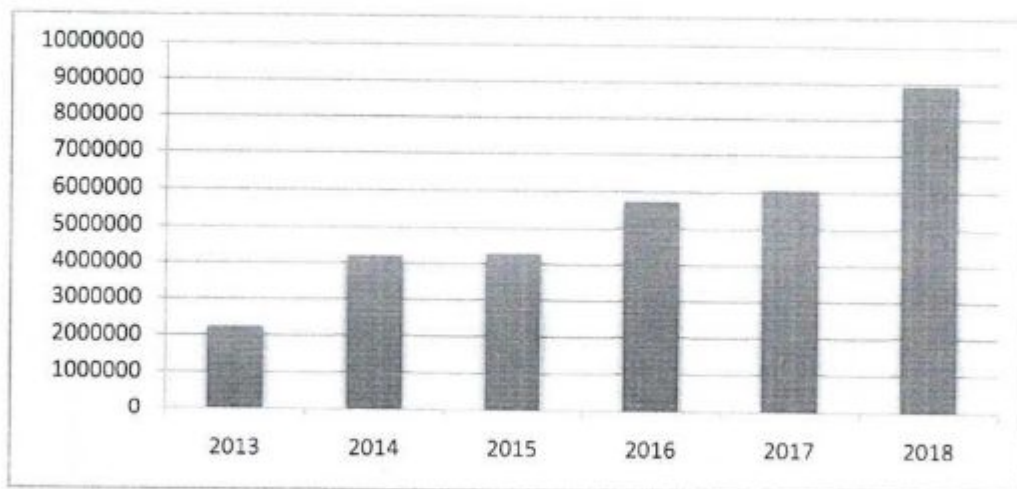
H 2: There is no relationship between liquidity and the profitability.

H 3: There is no relationship between financial leverage position and the profitability.

**Data Analysis and Interpretation**  
**Gross Working Capital of Bhagyashri Packaging:**  
**Table: Gross working capital**

CURRENT ASSETS	AS ON 31-3-2013	AS ON 31-3-2014	AS ON 31-3-2015	AS ON 31-3-2016	AS ON 31-3-2017	AS ON 31-3-2018
Debtors	5,09,368.00	24,37,697.60	22,31,730.00	42,70,590.01	37,15,197.00	58,17,128.74
Other Current Assets	17,08,128.50	17,49,044.60	20,44,728.61	14,31,834.62	23,21,393.76	30,97,608.69
Cash Balance	20,000.00	20,017.40	26,004.17	30,007.12	13,529.03	13,671.17
Total C.A /Gross Working Capital (A)	22,37,496.50	42,06,759.60	43,02,462.78	57,32,431.75	60,50,119.79	89,28,408.60

**Graph: Gross working capital**





**Interpretation**

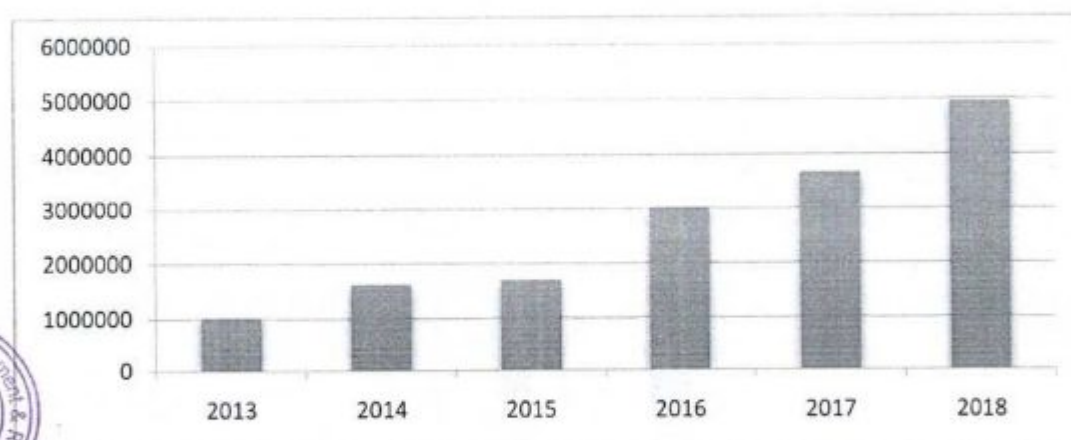
- The gross working capital of the company is increasing every yearly.
- The gross working capital of 2013-2014 was 22,37,496.50, in 2014-2015 it was 42,06,759.60, in 2015-16 was 43,02,462.78, in

2016-17 it was 57,32,431.75, in 2017-18 it was 60,50,119.79, in 2018-19 it was 89,28,408.60

- Gross working capital is highest in 2018-19 i.e. 89,28,408.60
- Gross working capital is increasing because of increase in sales & debtors.

**Net Working Capital of Bhagyashri Packaging:****Table: Net working capital**

CURRENT ASSETS	AS ON 31-3-2013	AS ON 31-3-2014	AS ON 31-3-2015	AS ON 31-3-2016	AS ON 31-3-2017	AS ON 31-3-2018
Debtors	5,09,368.00	24,37,697.60	22,31,730.00	42,71,590.01	37,15,197.00	58,17,128.74
Current Assets	17,08,128.50	17,49,044.60	20,04,728.61	14,31,834.62	23,21,393.76	30,97,608.69
Cash Balance	20,000.00	20,017.40	26,004.17	30,007.12	13,529.03	13,671.17
Total C.A /Gross Working Capital (A)	22,37,496.50	42,06,759.60	43,02,462.78	57,32,431.75	60,50,119.03	89,28,408.60
Current Liabilities						
Current Liabilities & Provision	12,24,323.00	25,93,061.70	26,18,047.52	27,40,396.69	23,94,719.47	39,77,863.76
Total C.L / (B)	12,24,323.00	25,93,061.70	26,18,047.52	27,40,396.69	23,94,719.47	39,77,863.76
Net Working Capital (A-B) = (C)	10,13,173.50	16,13,697.90	16,84,415.26	29,92,035.06	36,55,400.32	49,50,544.84

**Graph: Net working capital**

**Interpretation:**

- The above graph shows that increasing trend of net working capital.
- Net working capital of 2013-2014 was 10,13,173.50, in 2014-2015 it was 16,13,697.90, in 2015-16 was 16,84,415.26, in

2016-17 it was 29,92,035.06, in 2017-18 it was 36,55,400.32, in 2018-19 it was 49,50,544.84 respectively.

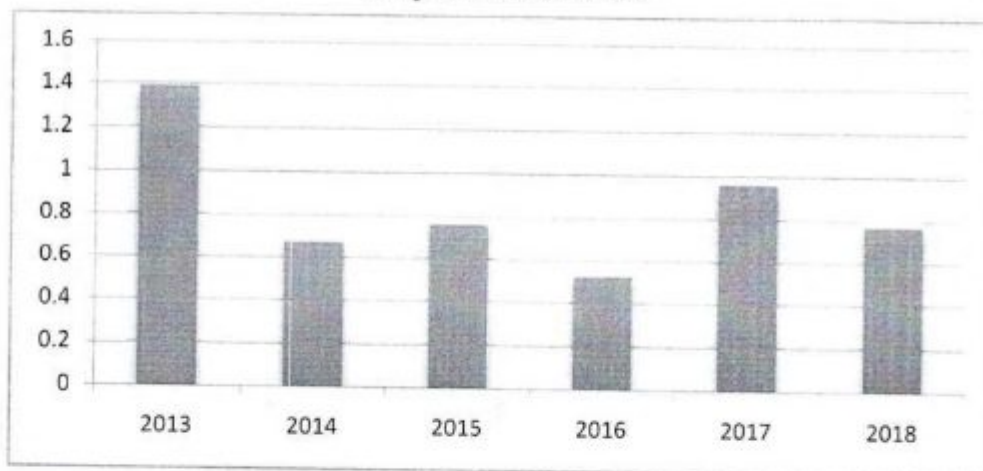
- The highest net working capital is 49,50,544.84 in the year 2018-19.

**Liquidity Analysis****1. Current Ratio:**

**Current Ratio = Current assets/ Current liabilities**

**Table: Current Ratio**

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	CURRENT RATIO
2013-2014	17,08,128.50	12,24,323.00	1.39
2014-2015	17,49,044.60	25,93,061.70	0.67
2015-2016	20,04,728.61	26,18,047.52	0.76
2016-2017	14,31,834.62	27,40,396.69	0.52
2017-2018	23,21,393.76	23,94,719.47	0.96
2018-2019	30,97,603.69	39,77,863.76	0.77

**Graph: Current Ratio**

This ratio indicates the extent of the soundness of current financial position of an undertaking & the degree of safety provided to the creditors. The ratio is designed to assist the decision maker in determining the firm ability to pay its current liabilities. The higher the current ratio, larger the amount of rupee of

current liability, more the firms ability to meet the current available per rupee obligations & the greater safety of funds of short term creditors. A current ratio of 2:1 indicates highly solvent position. The organisation having ratio below to the standard is risky for the investment.

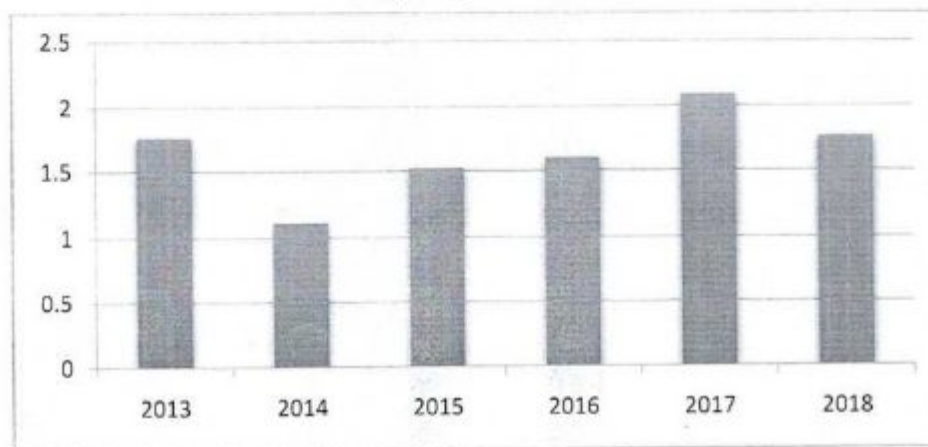
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Balewadi, Pune-411045





**2. Quick Ratio:****Quick Ratio = Liquid assets / Liquid liabilities****Table: Quick Ratio**

YEAR	LIQUID ASSETS	LIQUID LIABILITIES	QUICK RATIO
2013-2014	21,57,437.00	12,24,323.00	1.76
2014-2015	28,99,411.40	25,93,061.70	1.11
2015-2016	39,96,442.26	26,18,047.52	1.52
2016-2017	43,95,491.33	27,40,396.69	1.60
2017-2018	50,23,291.87	23,94,719.47	2.09
2018-2019	69,84,314.94	39,77,863.76	1.76

**Graph: Quick Ratio**

Hear, the quick ratio also known as the acid test ratio is the type of liquidity ratio which measure the ability of companies to use its cash or quick assets or retire its current liabilities

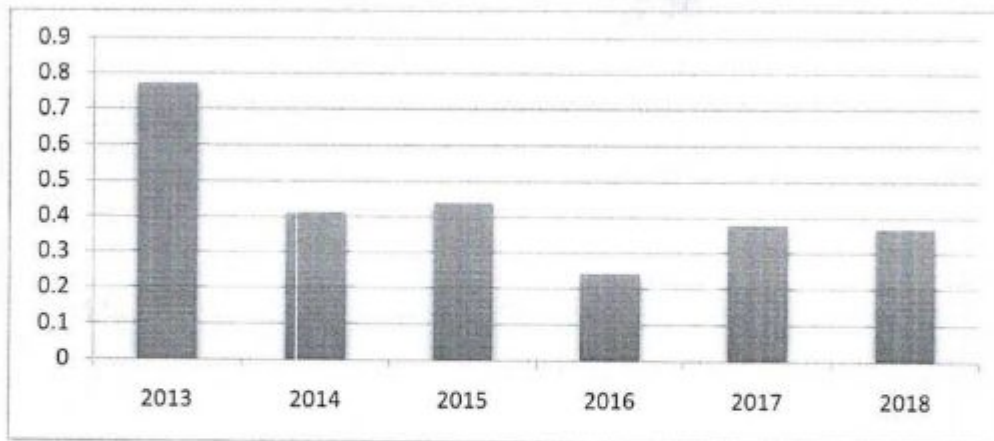
immediately. The company's highest ratio is in the year of 2017-2018 that is 2.09 and the lowest ratio is in the year of 2014-2015 that is 1.11.

**3. Current Assets to Total Assets Ratio:****Current Assets to Total Assets Ratio = Current Assets / Total Assets****Table: Current Assets to Total Assets Ratio**

YEAR	CURRENT ASSETS	TOTAL ASSETS	FINAL RATIO
2013-2014	17,08,128.50	22,37,496.50	0.77
2014-2015	17,49,044.60	42,06,759.70	0.41
2015-2016	20,04,728.61	45,15,674.96	0.44
2016-2017	14,31,834.62	57,32,431.75	0.24
2017-2018	23,21,393.76	60,50,119.79	0.38
2018-2019	30,97,603.69	89,28,408.60	0.37



**Graph: Current Assets to Total Assets Ratio**



Next ratio I calculated is the current assets to total assets ratio here the lowest ratios is the 0.24 is in the year of 2016-2017 and highest ratio is 0.77 is in the year of 2013-2014

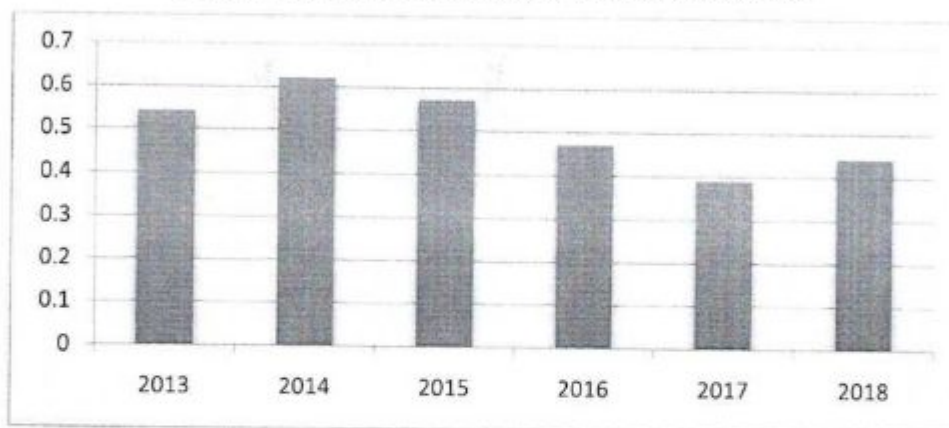
**4. Current Liabilities to Total Assets Ratio:**

**Current Liabilities to Total Assets Ratio = Current Liabilities / Total Assets**

**Table : Current Liabilities to Total Assets Ratio**

YEAR	CURRENT LIABILITIES	TOTAL ASSETS	FINAL RATIO
2013-2014	12,24,323.00	22,37,496.50	0.54
2014-2015	25,93,061.70	42,06,759.70	0.62
2015-2016	26,18,047.52	45,15,674.96	0.57
2016-2017	27,40,396.69	57,32,431.75	0.47
2017-2018	23,94,719.47	60,50,119.79	0.39
2018-2019	39,77,863.76	89,28,408.60	0.44

**Graph : Current Liabilities to Total Assets Ratio**



The final ratio I calculated is the current liabilities to total assets ratio and the lowest ratio is the 0.39 is in the year of 2017-2018 while the highest ratio is in the year of 2014-2015 that is 0.62.

*[Signature]*  
**Director**

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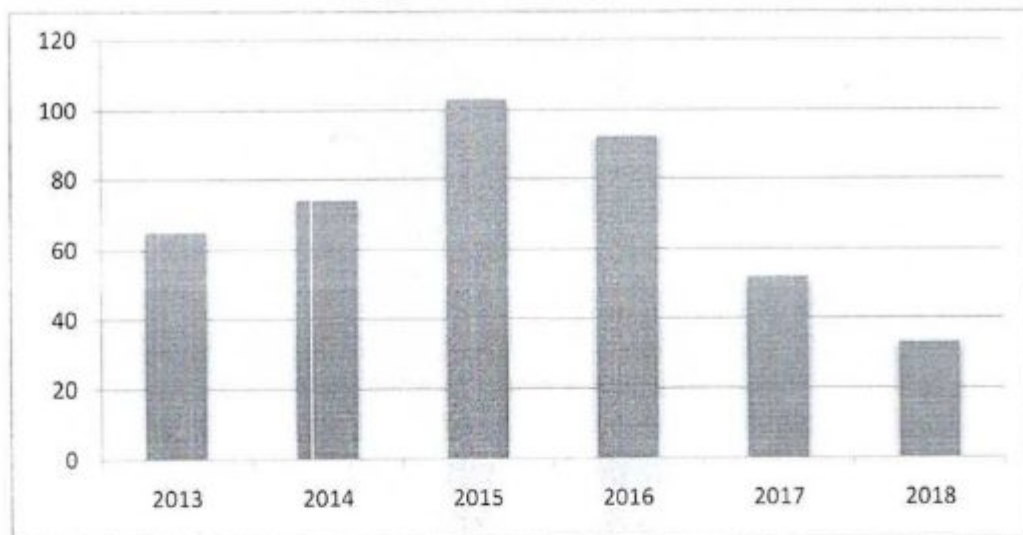


• **Net Operating Cycle for Bhagyashree Packaging:**

**Table: Net operating cycle**

(A) Current Assets	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Raw materials	32 Days	40 Days	48 Days	54 Days	49 Days	52 Days
Work in Progress	1 Days	1 Days	1 Days	1 Days	1 Days	1 Days
Finished Goods	26 Days	28 Days	45 Days	37 Days	43 Days	48 Days
Sundry Debtors	334 Days	352 Days	357 Days	312 Days	267 Days	224 Days
Total (A) / Gross Operating Cycle	393 Days	421 Days	451 Days	404 Days	360 Days	325 Days
<b>(B) Current Liabilities</b>						
Creditors	328 Days	347 Days	348 Days	312 Days	308 Days	292 Days
Total (B)	328 Days	347 Days	348 Days	312 Days	308 Days	292 Days
NET Operating cycle (A-B)=(C)	65 Days	74 Days	103 Days	92 Days	52 Days	33 Days

**Graph: Net operating cycle**

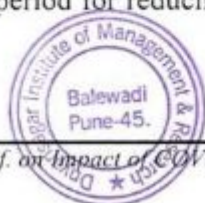


**Interpretation**

- As per the above graph net operating cycle is showing the decreasing trend.
- Net operating cycle of 2013-2014 was 65 Days, 2014-2015 it was 74 Days, in 2015-16 it was 103 Days, in 2016-17 it was 92 Days, in 2017-18 it was 52 Days, in 2018-19 it was 33 Days.
- The maximum operating cycle is 103 days and minimum 33 days.
- They decrease the creditors as well as debtors period for reducing the operating cycle period.

**Findings**

The amount of gross working capital is increase continuously from 2013-2018. Gross working capital is highest in 2018-19 i.e. 89,28,408.60. Gross working capital is increasing because of increase in sales & debtors. Net working capital shows that increasing trend & it shows positive impact on the organisation. The highest net working capital is 49, 50,544.84 in the year 2018-19. Net operating cycle is showing the decreasing trend because the company able to quickly collect credit sales. Net operating cycle of 2013-2014 was 65 Days, 2014-2015 it was 74 Days, in



2015-16 it was 103 Days, in 2016-17 it was 92 Days, in 2017-18 it was 52 Days, in 2018-19 it was 33 Days. The maximum operating cycle is 103 days and minimum 33 days.

### Conclusion

Working capital is showing an increasing trend from last 6 years (i.e. from 2013-14 to 2018-19), & the need is increasing day by day. Working capital is increased as current assets are more than current liabilities. The working capital helps in forecast, control & management of working capital.



  
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## A STUDY OF WORKING CAPITAL MANAGEMENT IN DELTA NUTRITIVES PRIVATE LTD

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### ABSTRACT

*Entire Study report is related with financial performance with respect to working capital in Delta nutritives private ltd. feature Main objective of working capital is to maintain operating cycle prepaid of Business. The Methodology used in the project is analytical. The Data is obtained from Secondary Sources. Annual report and internet are the main Sources of data collection. The data analysis is done through mainly with help of calculation and graphs of loan and advances.*

**Keywords** – Ratio Analysis and operating cycle of working capital

#### Introduction

Working capital means the capital of a business which is used in its day-to-day trading operations. It is calculated by current assets minus current liabilities. Working capital is the day to day finance required to run a business. Working capital is important in maintaining the financial health of any enterprise. The main objective of every business organization is profit maximization. Every business organization earns profit by selling its products to end consumers for generating cash. generation of profits is depends upon the sales of company.

**Working Capital = Current Assets – Current Liabilities**

#### Review of Literature

Impotence of working capital closely related to large amount investing current assets and current liabilities. Working capital management consists of all decisions that are related to the management of current assets and liabilities, i.e. determining the optimal amount of cash receivable inventory, and current liabilities and the relationship between current assets and current liabilities. The strategic role of working capital management in firms. Most previous previous studies indicate that working capital management affects profitability. In conclusion of Delta nutritives private ltd, Working capital trends are positively increase Year to Year this reason the role of working capital is positive for Delta nutritive private

Ltd. (Assessment year 2014 to 2019) of previous six years. The increased trends of working capital show the under diagrams.

#### Objectives of the study

- To study the working capital performance
- To identify the liquidity position in Delta nutritive private ltd .
- To know the way and means of financing working capital.
- To suggest suitable suggestions to overcome the obstacle in the company.

#### Research Methodology

Research is a systematic activity directed towards discovery and the development of an organized body of knowledge.

Researcher used Analytical Research Method for this paper. This paper is on secondary data. In this research secondary data is collected from balance sheet, reference book, and magazine old company records and internal. The data collection is the systematic process of gathering and measuring information on variables of interest .it is an established systematic fashion that enables one to answer stated research questions test hypothesis and evaluate outcomes. I am used last five year annual report.

#### Data Collection

The data collection is the systematic process of gathering and measuring information on



variables of interest .it is an established systematic fashion that enables one to answer stated research questions test hypothesis and evaluate outcomes.

### Primary Data

“Primary data means original that has been collected specially for the purpose in mind. It means someone collected the data from the original source first hand. Data collected this way is called Primary Data. Primary data is more costly than secondary data. For example: Questionnaire, interviews, etc.

### Secondary Data

“Secondary data is data that has been collected for another purpose. Such data was already

published by organization. Secondary data is low costly.

For this Study Report Secondary data collection method is used.

### Hypothesis of Study

- Working capital is important to increase the 'profitability of Organisations.
- Working capital management Help In sustainable growth of Organisations.
- Organisations' profitability Main role effect on working capital management on sustainable growth.

### Data Analysis and Interpretation:

### Gross Working Capital:

Particular	2014	2015	2016	2017	2018	2019
<b>(A) Current Asset</b>						
Trade Receivable	47,698,868.00	71,606,732.00	90,444,563.00	97,946,763.00	155,379,360.00	233,105,043.00
Cash and Cash Equivalents	560,819.00	1,209,147.00	3,383,148.00	2,985,928.00	1,666,412.00	1,665,018.00
Inventories	73,671,241.00	93,550,644.00	130,141,913.00	85,095,440.00	107,852,724.00	241,204,478.00
Short Term Loan	17,318,013.00	30,601,500.00	36,193,236.00	72,447,159.00	48,607,631.00	36,958,936.00
Other Current Asset	5,660,690.00	5,957,485.00	9,169,457.00	11,981,725.00	12,603,608.00	13,217,157.00
Differed tax asset	-				4,830,410.00	4,830,410.00
<b>Gross Working Capital</b>	<b>144,909,631.00</b>	<b>202,925,508.00</b>	<b>269,332,317.00</b>	<b>270,457,015.00</b>	<b>330,940,145.00</b>	<b>530,981,042.00</b>

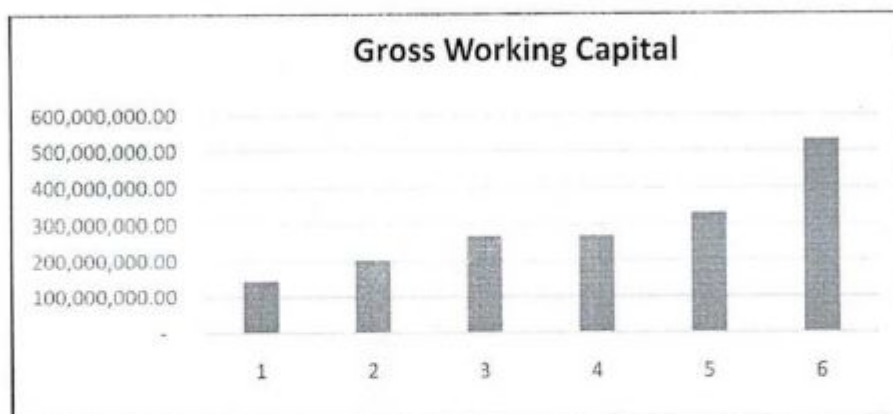


Diagram : Gross working Capital for FY-2014-2019



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**Interpretation:**

In the above diagram show the Gross Working Capital of Delta Nutritive Pvt. Ltd for the FY-2014-2019. In this diagram and above table see

and understand conclusion is the Gross Working Capital of Delta Nutritive Pvt. Ltd, are increasing trend of FY-2014-2019.

**Net Working Capital:**

Particular	2014	2015	2016	2017	2018	2019
(A) Current Asset						
Trade Receivable	47,698,868.00	71,606,732.00	90,444,563.00	97,946,763.00	155,379,360.00	233,105,043.00
Cash and Cash Equivalents	560,819.00	1,209,147.00	3,383,148.00	2,985,928.00	1,666,412.00	1,665,018.00
Inventories	73,671,241.00	93,550,644.00	130,141,913.00	85,095,440.00	107,852,724.00	241,204,478.00
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Other Current Asset	5,660,690.00	5,957,485.00	9,169,457.00	11,981,725.00	12,603,608.00	13,217,157.00
Differed tax asset	-	-	-	-	4,830,410.00	4,830,410.00
<b>Total (A)</b>	<b>144,909,631.00</b>	<b>202,925,508.00</b>	<b>269,332,317.00</b>	<b>270,457,015.00</b>	<b>330,940,145.00</b>	<b>530,981,042.00</b>
(B) Current Liabilities						
Short Term Borrowings	17,207,851.00	10,644,029.00	13,855,993.00	14,372,284.00	9,160,759.00	4,254,322.00
Trade Payable	39,904,601.00	67,048,605.00	87,259,351.00	61,171,259.00	79,104,565.00	108,815,655.00
Short Term Provision	2,885,077.00	5,666,818.00	94,478,506.00	19,809,672.00	28,350,182.00	31,260,713.00
Other Current Liability	65,348,438.00	84,863,561.00	13,579,364.00	85,161,871.00	97,792,752.00	227,958,277.00
<b>Total (B)</b>	<b>125,345,967.00</b>	<b>168,223,013.00</b>	<b>209,173,214.00</b>	<b>180,515,086.00</b>	<b>214,408,258.00</b>	<b>372,288,967.00</b>
<b>Net Working Capital (A-B)</b>	<b>19,563,664.00</b>	<b>34,702,495.00</b>	<b>60,159,103.00</b>	<b>89,941,929.00</b>	<b>116,531,887.00</b>	<b>158,692,075.00</b>

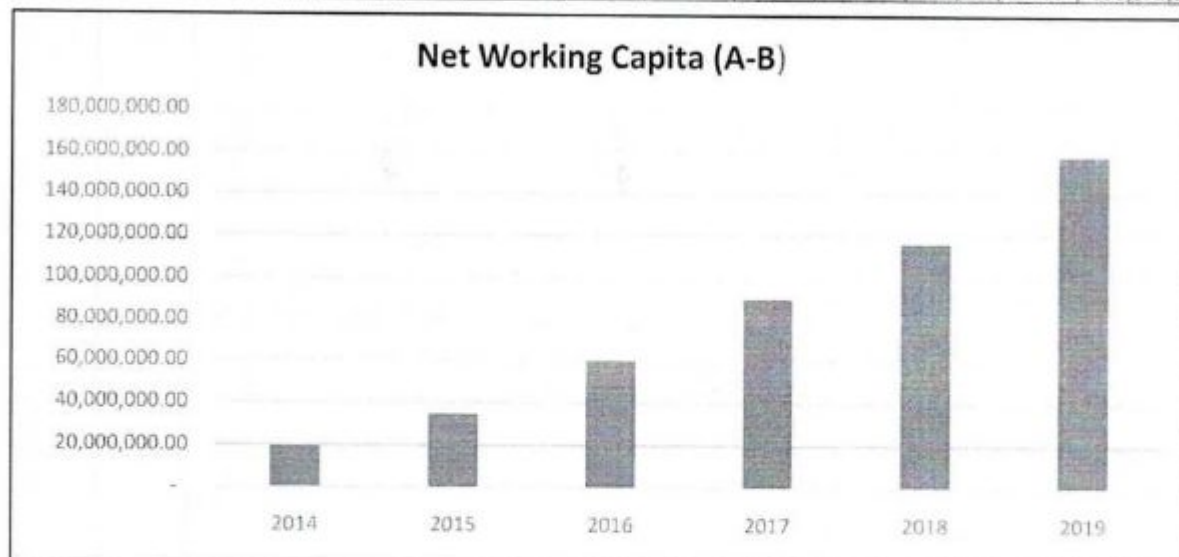


Diagram :Net Working Capital for FY-2014-2019



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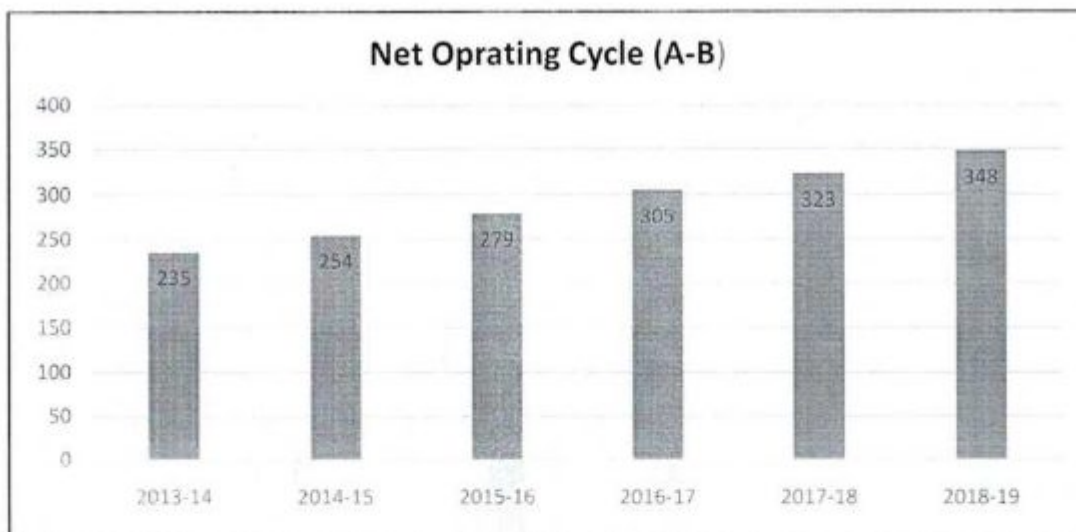
**Interpretation:**

In the above diagram show the Net Working Capital of Delta Nutritive Pvt. Ltd for the FY-2014-2019. In this diagram and above table see

and understand conclusion is the Net Working Capital of Delta Nutritive Pvt. Ltd, are Increasing trend of FY-2014-2019

**Operating Cycle:**

(A) Current Asset	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Raw Material (RM)	80	87	97	107	117	127
Work in Progress (WIP)	75	82	97	103	110	120
Finished Goods (FG)	85	92	105	115	125	135
Sundry Debtor (Deb)	40	45	40	49	50	55
<b>Total A ( Gross Operating Cycle)</b>	<b>280</b>	<b>306</b>	<b>339</b>	<b>374</b>	<b>402</b>	<b>437</b>
( B) Current Liabilities						
Creditor	45	52	60	69	79	89
Total (B)	45	52	60	69	79	89
<b>Net Operating Cycle (A-B)</b>	<b>235</b>	<b>254</b>	<b>279</b>	<b>305</b>	<b>323</b>	<b>348</b>

**Net Operating Cycle for FY-2014-2019****Interpretation:**

In the above diagram show the Net Operating Cycle of Delta Nutritive Pvt. Ltd for the FY-2014-2019. In this diagram and above table see

and understand conclusion is the Net Operating Cycle of Delta Nutritive Pvt. Ltd, are Increasing trend of FY-2014-2019

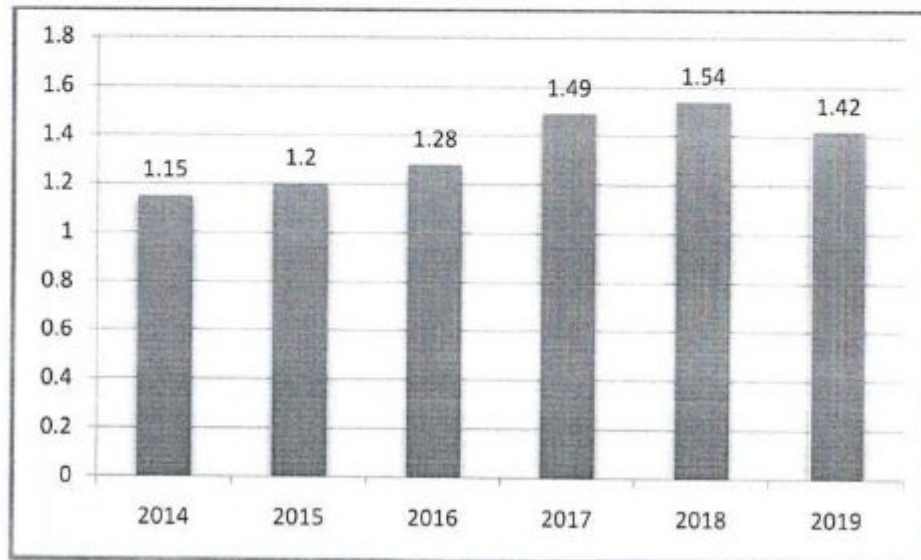




## Ratio Analysis

## Current Ratio FY- 2014-2019

Year	2014	2015	2016	2017	2018	2019
Current Ratio	1.15	1.20	1.28	1.49	1.54	1.42



## Current Ratio FY 2014-2019

## Interpretation:

- The above diagram show the Current Ratio of Delta Nutritive Pvt. Ltd for the FY-2014-2019.

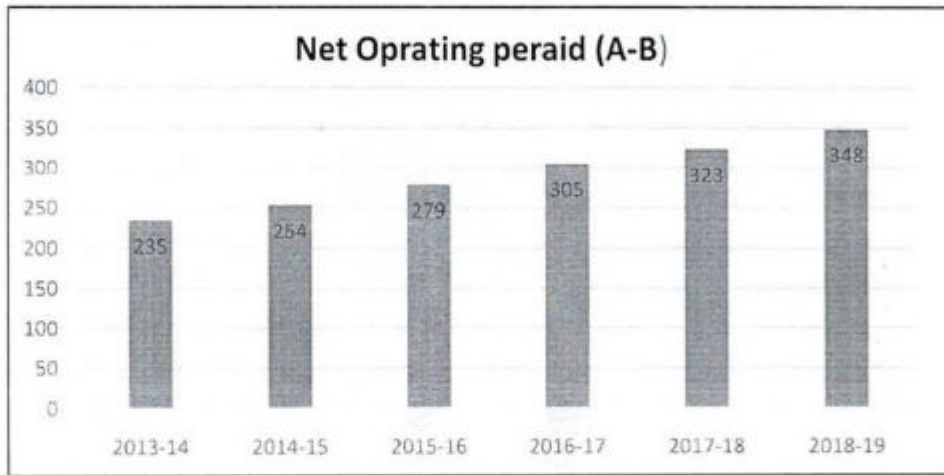
- In FY- 2014 Current ratio 1.15, FY-2015 Current ratio- 1.2 , FY-2016 Current ratio-1.28, FY-2017 Current ratio 1.49, FY-2018 Current ratio 1.54 and lastly FY-2019 Current ratio is 1.42.

## Net Operating Period:

(A) Current Asset	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Raw Material (RM)	80	87	97	107	117	127
Work in Progress (WIP)	75	82	97	103	110	120
Finished Goods (FG)	85	92	105	115	125	135
Sundry Debtor (Deb)	40	45	40	49	50	55
<b>Total A ( Gross Operating Cycle)</b>	<b>280</b>	<b>306</b>	<b>339</b>	<b>374</b>	<b>402</b>	<b>437</b>
( B) Current Liabilities						
Creditor	45	52	60	69	79	89
Total (B)	45	52	60	69	79	89
<b>Net Operating Cycle (A-B)</b>	<b>235</b>	<b>254</b>	<b>279</b>	<b>305</b>	<b>323</b>	<b>348</b>



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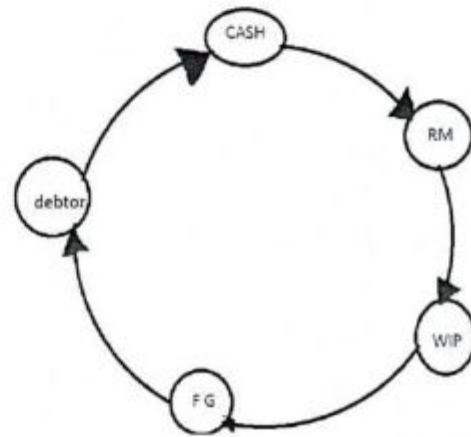
Net Operating period for FY-2014-2019

**Interpretation:**

In the above diagram show the Net Operating Cycle of Delta Nutritive Pvt. Ltd for the FY-2014-2019. In this diagram and above table see and understand conclusion is the Net Operating Cycle of Delta Nutritive Pvt. Ltd, are Increasing trend of FY-2014-2019

**Operating Cycle of Working Capital:**

Working Capital is the life blood of any business, without working capital fixed assets are inoperative. Cash is used for purchase of raw material and store items and for payment of operating expenses, and the converted into work in progress, then to finished goods. When finished goods are sold on credit terms receivable balances will be formed. When the receivable are collected, it is converted into cash. The operating cycle of an organization consist of time period between the purchase of inventory and collection of cash form receivables. The operating cycle in working capital is an indicator of the efficiency in the management.



**Operating Cycle of Working Capital**

Reasons for longer operating cycle period:

- Purchase of materials in excess/short of requirements.
- Buying inferior, defective materials.
- Failure to get trade discount, cash discount.
- Inability to purchase during seasons.
- Defective inventory policy.
- Use of protracted manufacturing cycle.
- Lack of production planning, coordination and control.
- Mismatch between production policy and demand.
- Use of outdated machinery, technology,
- Poor maintenance and upkeep of plant, equipment and infrastructure facilities,



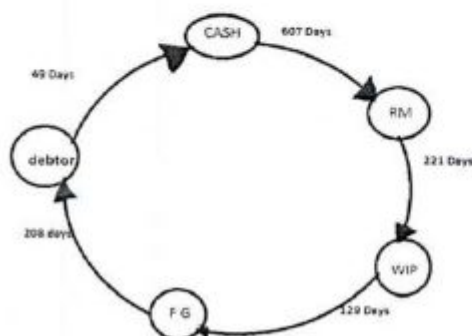
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**Net Operating Cycle:**

$$\begin{aligned}
 &= \text{Raw Material Holding Period} + \text{WIP Days} + \text{Finished Goods Days} + \\
 &\quad \text{Debtors Collection Period} - \text{Creditor credit period} \\
 &= 221 \text{ Days} + 129 \text{ Days} + 208 \text{ Days} + 49 \text{ Days} - 69 \text{ Days} \\
 &= \mathbf{607 \text{ Days}}
 \end{aligned}$$

Operating Cycle of period of Delta Nutritive Pvt. Ltd. in year 2017-18 is 607 days. It means that organization need 607 days to get his money back form the operations . It means there are  $365/607 = 0.60$  operating cycles are completed in one year.

**Operating Cycle (Working Capital)****Interpretation:**

In the above diagram show the Operating Cycle (Working Capital) of Delta Nutritive Pvt. Ltd for the FY-2017-18. In this diagram and above table see and understand conclusion is the Operating Cycle period of Delta

Nutritive Pvt. Ltd, of FY-2017-2018 is 0.60 in a year. Thus the working capital cycle helps in forecast, control and management of working capital.

**Findings and Conclusion**

The present study entitled "A Research Report on working capital of Delta nutritives private limited" was under taken with main objective of analysing whether the companies are viable in the long run through the ratio analysis, statement of change in working capital. The researcher hopes that this research will provide an idea on the "A Research Report on working capital of Delta nutritives private limited" and the processing techniques are satisfactory and it is facing moderate profit over the years it is also essential to buy more shares in order to face the severe competition and to increase its profit, The researcher strongly believes that the suggestion of this study will be beneficial to the company.

**Reference**

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## EFFECT OF NON-INTEREST INCOME ON BANK PERFORMANCE AND RISK

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### Abstract

In recent times, the banks had largely diversified its income sources from traditional activities to other non-traditional activities such as brokerage and fee based services, sale of third party products, securities and forex transactions, etc., This study attempts to investigate the impact of non-interest income on bank performance. The effect of different components of non-interest income on the banks performance and risk are analysed using statistics and correlation matrix. The findings of this study show that the non-interest income increases both the profitability and risk. It also recommends public and private sector banks to focus on diversified income and aggressive marketing of ancillary services to increase their income.

**Keywords:** Non-Interest Income, Performance, Risk, Correlation

### 1. Introduction

Financial system is a structure in an economy that facilitates exchange of funds between investors, borrowers and lenders and helps in the transformation of savings into Investments. Banks perform a catalytic role in enhancing economic growth of any country. Likewise, economic health of a nation has a remarkable impact on banks performance. Banks play a vital role in providing financial resources to all the sectors of economy. They help government in meeting various social objectives like financial inclusion, passing welfare benefits to weaker section of the society and offering assortment of ancillary services. Accepting deposits and advancing loans are the primary functions of banks. Banks also provide agency and general utility services as secondary functions. The banks accept deposits in three forms such as current account, savings account and fixed deposits account. The banks advance loans in the form of cash credit, personal loans, home loans, vehicle loans, working capital loans, etc., Liberalization and economic reforms had totally changed the Indian banking sector. In the earlier days, the banking sector was highly dominated by public sector banks but that situation had changed as the liberalization lead to the formation of new private banks. The banking industry in India is mainly governed by the Reserve Bank of India Act, 1934 and the Banking Regulation Act, 1949.

The decrease in the interest rates leads to decrease in bank's profitability. In order to overcome this decrease and to survive in the most competitive environment, banks started to compete in the market with innovative products and services in order to increase their market share and to maximize their profits. Non- interest income of a bank is the income that arises from bank's non-traditional activities. Though the primary job of any commercial bank is to reap profit through their core functions of accepting deposit and deployment of credit i.e. interest spread, the non-interest income from the ancillary services are becoming increasingly important in the highly competitive industry. The banks are now more capable of offering various ancillary services than earlier and as a result of this, they are giving extensive attention to non- interest income. Many innovative products and





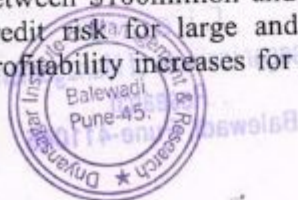
services are introduced in the financial markets by banks which allow them to compete effectively with other leading players. These diversified activities carried out by the banks allow them to earn fee-based income rather than depending solely on interest margin. Banks also charge fees for deposit services, processing loans, card services and also perform capital market oriented activities such as underwriting, mergers and acquisitions, advisory, etc., For all these services banks charge certain fees. Income earned through fees and other charges is called non-interest income. The banks also earn commission through third party products like insurance, mutual funds, etc.,

The variables used in this study comprised of both dependent and independent variables. The independent variables used here are ratio of interest income to total income, ratio of components of non interest income to total income and the dependent variables used in this study are ratio of non-interest income to total income and standard deviation of ratio of non-interest income to total income. Ratio of non-interest income to total income and standard deviation of ratio of non-interest income to total income are used to measure the performance and risk of banks respectively. The ratio of non-interest income to net operating income was used to estimate the degree of diversification of income. In order to study the deep insights of risk implications, the net non-interest income was classified into ratio of brokerage and service fee income to net income, ratio of dividend income to net income, ratio of income from securities transactions to net income, ratio of income from forex transactions to net income and ratio of miscellaneous income to net income. The quantitative data are then analyzed using econometric packages such as E views. Research tools such as descriptive statistics and Correlation are applied to study the effect of non-interest income on banks performance and risk.

## 2. Literature Reviews

**Adwaita Maiti and SK Jana (2017)** traced the changes in the profitability over 2008-09 to 2012-13 and identified that profit, NIM, non performing assets ratio and non-interest income were the major factors that greatly influence the overall performance and profitability of banks in India. **Ahamed (2017)** investigated whether the shift of banks income activities towards non-income activities increased the profitability of Indian banks and showed that the banks performance increases with increase in income diversifications and it is more beneficial to private foreign banks than public banks. **Hamdi et al., (2017)** studied that the relative performance, bank size, loan specialization, new e-payment channels, ATMs and cards determine the non-interest income and the non-interest income appeared to be negatively and significantly correlated with bank risk and increase on non-interest income increased the banks performance. **Limei Sun et al., (2017)** attempted to investigate the relationship between non-interest income and bank's profits and risks in Chinese banking sector and showed that the performance and non-interest income are negatively correlated i.e., negative relation will weaken when its non-interest income is greater than the threshold value. **P Ozek (2017)** explained that the bank size had a significant impact on each component of non-interest income and it showed that faster growth and higher profitability were associated with trading income.

**P. Abedifar (2017)** examined the impact of non interest activities on credit risk and interest spread in order to seek the evidence on the existence of cross subsidization between interest and non-interest activities and showed that the increase in the income share from fiduciary activities has lower credit risk for banks with total assets ranging between \$100million and \$1billion. There is no link between non-interest income and credit risk for large and distressed banks. **Tarawneh et al., (2017)** found that the profitability increases for the banks with higher CAR, large size, loans and non-interest





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margin and it decreases for the banks with higher overheads. **Thanh Hang et al., (2017)** implied that the bank's profitability and risk increases with increase in income diversification and it also implied that increase in growth; loan and deposits would have profitability with less volatility. **Yong Tan (2017)** showed that the bank's performance increases with increase in ROA, NIM and economic growth but its profitability decreases with increase in competition. It also suggests Chinese government to implement relevant policies with high professional knowledge and experience to develop the shadow banking in China.

**Abugri et al., (2016)** established that the non-interest income was positively related with banks risk but when the asset size increases this relationship become negative. In terms of ownership structure, the increase in non-interest income decreases the risk for private domestic and foreign banks and in case of public domestic banks, the risk increases with increase in non-interest income. **Ashok Gupta and Gautam Sen (2016)** identified that the banks had greatly diversified over the past few years and the returns were not high as compared to that of the risks taken by the banks. **Barry Williams (2016)** showed that mainly the 2008 financial crisis had changed the revenue composition and risks in banks of Australia. **Dhananjay Bapat and Mahim Sagar (2016)** examined that there exist a significant positive relationship between ownership/diversification and the ratio of non-interest income to interest income and the significant difference was not observed between the bank size and the ratio of non-interest income to interest income. **K.B.Singh et al., (2016)** implied that the noninterest income plays a significant role in foreign banks than private and public sector banks and the private banks have more risk appetite than other banks. **Mutuma and Mungatu (2016)** recommended the banks in Kenya to extend their activities into various sources and also suggested Government to encourage banks to carry out these activities. **Alhassan (2015)** also implied that the small banks had low efficiency than large banks. The highly diversified banks had high cost efficient and low profit efficient.

**Kohler (2015)** implied that the bank's stability was mainly determined by their income structure and it became less risky when its share of non-interest income got increased. **Nguyen et al., (2015)** analysed that the risk of the bank got reduced by increase in the income diversification. **Mndeme (2015)** found that relying on noninterest income activities has adverse impact on Tanzanian bank performance but suggested to carryout noninterest income activities as they lead to diversification and mitigate the risk of banks. **BS Damankah et al., (2014)** showed that inflation, liquidity, increased loan losses and bank origin had significant positive impact whereas CAR and bank size had negative impact on the non-traditional activities. **Calmes and Theoret (2014)** found that the banks with higher involvement of banks in fee based activities had increased the bank performance. **Gupta and Singh (2014)** identified that non-interest income of Indian scheduled commercial banks are found to be more volatile than interest income. **Karakaya et al., (2014)** examined that the non interest income was the main revenue factor and it was higher for participation banks than commercial banks because of lower competition. **Kohler (2014)** showed that if they increased their share of non-interest income, investment-oriented banks became significantly riskier.

### 3. Research gap

There are a number of studies related to the impact of non-interest income on banks performance and the risks involved in it but researchers have not come across the study pertaining to the comparison of new generation banks with other public and private sector banks and the share of non-interest income to the total income and the component of non-

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interest income source that contributes more to the total income were not studied

### 4. Objectives of the study

- To identify the effect of non-interest income on banks' performance.
- To assess the impact on non-interest income on banks' risk
- To capture the most associated form of non-interest income among different bank groups.

### 5. Research Methodology

The proposed research study is an empirical in nature, as it is based on actual data of different banks obtained from the authenticated source of CMIE-Prowess. The data on key variables are collected and analysed for the period of last thirteen years i.e. from 2012 to 2022. The data design applied for the study is secondary in nature. The sample size is decided based on the number of banks in bank category

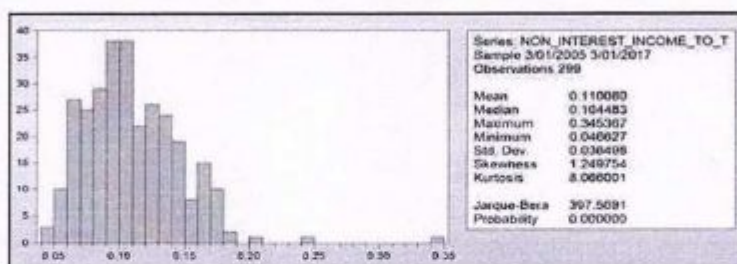
### 6. Data Analysis

PUBLIC SECTOR BANKS							
	%of non-interest income to total income	Broker age to total income	dividen dto total income	Securities transactio nsto total income	Forex transactio nsto total income	Miscellane ousincome to total income	%of Interest income to total income
Mean	0.11008	0.036417	0.002085	0.030409	0.011914	0.029254	0.876848
Media n	0.104483	0.032952	0.000436	0.024116	0.009371	0.027909	0.881486
Maxim um	0.345367	0.117692	0.214171	0.133535	0.096721	0.107176	0.95315
Minimu m	0.046627	0.006513	0	0	0	0.000677	0.335241
Std. Dev.	0.036498	0.019787	0.01255	0.022627	0.010522	0.015484	0.05183
Skewne ss	1.249754	1.141395	16.23747	1.540348	3.57279	0.8726	-4.420793
Kurtos is	8.066001	4.936598	274.6485	5.887225	22.96985	5.034323	43.27417
Jarque-Bera	397.5691	111.6459	932475.7	222.0916	5604.432	89.5031	21181.44
Probabil ity	0	0	0	0	0	0	0
Sum	32.91383	10.88876	0.623525	9.092244	3.562426	8.746879	262.1776
Sum Sq. Dev.	0.396976	0.11668	0.046933	0.152566	0.032991	0.071444	0.800534
Observati ons	299	299	299	299	299	299	299



  
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### Ratio of Non-Interest Income to Total Income for Public Sector Banks

The results show that the data are not normally distributed which is supported by Jarque-Bera test. Probability of zero indicates that the null hypothesis of normality assumption is rejected. These leptokurtic (higher kurtosis) and fat-tailed characters are due to the existence of extremely large spike in data series. The maximum ratio of non-interest income to total income registered during estimation period (2005-2017) is 0.35 but most of the bank's non-interest income ratio lies between 0.05 and 0.20 (occupies mostly the left portion of the graph). The mean value of ratio of non-interest income to total income shows that the non-interest income contributes only to 11% of total income. The standard Deviation of the ratio of non-interest income to total income indicates that the ratio of non-interest income to total income is widely spread and away from the mean value and the non-interest income source is not stable for public sector banks. The Skewness of 1.25 reveals the distribution is positively skewed. Kurtosis of 8.066 is higher than the ideal value of 3. The P-Value of Jarque-Bera test is zero which is less than 0.05, meaning that the distribution is not normal.

Of these 11%, income from brokerage and financial service fees contributes to 3.64%, dividend income contributes to 0.21% (some banks do not earn any income from dividend), 3.04% of income is contributed by securities transactions and sale of investments, 1% income from forex transactions and 3% from miscellaneous income. These results show that income from brokerage and financial service fees form a major source to non-interest income for public sector banks. Dividend income and income from forex transactions are very less while comparing with other sources of non-interest income.

### Ratio of Interest Income to Total Income for Public Sector Banks

The mean and median of ratio of interest income to total income is 0.87 and 0.88 respectively. The maximum ratio registered during estimation period (2005-2017) is 0.95 and the minimum ratio during the stated period is 0.34. The minimum value may be an outlier because mostly all the banks' ratio of interest income to total income lie on the maximum side. The Skewness of -4.42 reveals the distribution is negatively skewed or skewed left (distribution is asymmetrical). Kurtosis of 43.27 is higher than the ideal value of 3. The higher kurtosis and fat-tailed characters are due to the existence of extremely large spike in data series. Probability of zero indicates that the null hypothesis of normality assumption is rejected. The P- Value of Jarque-Bera test is zero which is less than 0.05, showing that the data are not normally distributed.



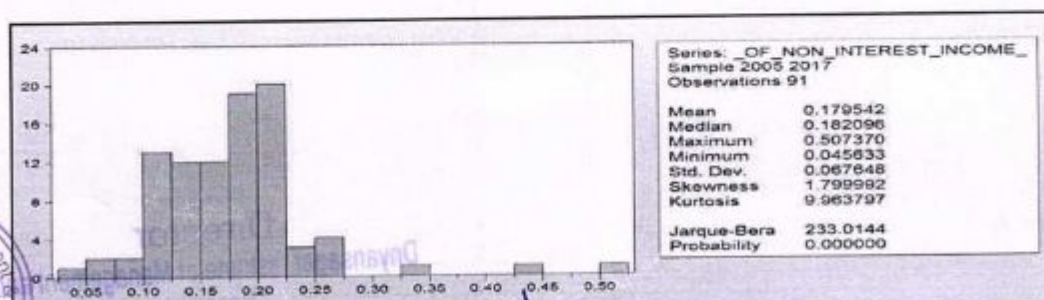
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<b>PRIVATE SECTOR BANKS</b>							
	%of non-interest income to total income	Brokerage to total income	dividend to total income	Securities transaction to total income	Forex transaction to total income	Miscellaneous income to total income	%of Interest income to total income
Mean	0.179542	0.115313	0.010733	0.021647	0.023938	0.007912	0.802326
Median	0.182096	0.116206	0.000768	0.016463	0.022354	0.002459	0.807251
Maximum	0.50737	0.183697	0.233551	0.118801	0.163113	0.057875	0.890526
Minimum	0.045633	0.022659	0	0	0	0	0.49263
Std. Dev.	0.067648	0.035347	0.030606	0.018223	0.02358	0.012613	0.061326
Skewness	1.799992	-0.5766	5.49956	2.069018	3.795627	2.348405	-2.51482
Kurtosis	9.963797	2.711566	36.12845	10.36511	21.91355	8.258823	12.9901
Jarque-Bera	233.0144	5.35789	4620.051	270.6044	1574.867	188.5037	474.3354
Probability	0	0.068636	0	0	0	0	0
Sum	16.33836	10.4935	0.976659	1.969869	2.178377	0.719956	73.01163
Sum Sq. Dev.	0.411866	0.112446	0.084307	2.99E-02	0.050041	0.014319	0.338476
Observations	91	91	91	91	91	91	91



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### Ratio of Non-Interest Income to Total Income for Private Sector Banks

Probability of zero in the Jarque-Bera test indicates that the null hypothesis of normality assumption is rejected. The kurtosis value of ratio of non-interest income to total income is 9.96 which is higher than the ideal value of 3 and these heavy-tailed characters are due to the existence of extremely large spike in data series. The maximum ratio of non-interest income to total during the calculated period (2005-2017) is 0.51. Though the maximum ration is 0.51 most of the banks' non-interest income ratio lies between 0.05 and 0.25 (occupies mostly the left portion of the graph) as it is right skewed with skewness value of 1.80. The non-interest income contributes 18% to total income of new generation private sector banks which is reasonably higher than the public sector banks. This high ratio is due to the improvement in technology, changes in economic policy and effective offering of diversified ancillary services. The standard Deviation of the ratio of non-interest income to total income indicates that the ratio of non-interest income to total income is widely spread and away from the mean value and the non-interest income source is not stable for private sector banks.

### Ratio of Interest Income to Total Income For Private Sector Banks

The mean and median of ratio of interest income to total income are 0.80 and 0.81 which are almost similar. 80% of income for new generation private sector banks are earned from their traditional activities i.e., interest income. Its minimum ratio is 0.50 but for most of the banks, ratio lies around the maximum value of 0.90 which indicates that the interest income is left skewed with skewness of -2.51. The standard deviation (0.06) implies that the observations are consistent with its mean value (0.80). The probability of Jarque-Bera test zero is less than the ideal value of 0.05 which indicates that the data are not normally distributed. The interest income for new generation private sector banks is higher than its non-interest income but it is lower when comparing with public sector banks interest income.

### Correlation matrix for Public Sector banks

<b>PUBLIC SECTOR BANKS</b>						
	Non-interest income to total income	Brokerage and service fee incometo total income	Dividend income to total income	Securities transactions income to total income	Forex transactions income to total income	Miscellaneous income to total income
Non-interest income to total income	1.000000	0.448405	0.430905	0.615663	0.405239	0.259866
Brokerage and service fee income to total income	0.448405	1.000000	0.072629	0.004522	0.108680	-0.360296
Dividend incometo total	0.430905	0.072629	1.000000	0.029574	0.122106	-0.013781





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income						
Securities transactions income to total income	0.615663	0.004522	0.029574	1.000000	-0.058734	9.21E-05
Forex transactions income to total income	0.405239	0.108680	0.122106	-0.058734	1.000000	0.123670
Miscellaneous income to total income	0.259866	-0.360296	-0.013781	9.21E-05	0.123670	1.000000

the correlation matrix of variables of public sector banks. The value of 1 in the diagonal of the matrix shows that the variables are perfectly correlated with itself. The positive value in the table indicates that those variables are positively correlated with each other and the negative values indicate that those variables are negatively correlated. All the variables except ratio of miscellaneous income to total income are positively correlated with each other. Ratio of miscellaneous income is negatively correlated with brokerage and dividend income. Ratio of Securities transactions to total income are highly correlated with ratio of non-interest income than any other income sources.

### Correlation Matrix for Private Sector Banks

PRIVATE SECTOR BANKS						
	Non-interest income to total income	Brokerage and service fee income to total income	Dividend income to total income	Securities transactions income to total income	Forex transactions income to total income	Miscellaneous income to total income
Non-interest income to total income	1.000000	0.387007	<b>0.875809</b>	0.289292	0.370590	<b>0.014674</b>
Brokerage and service fee income to total income	0.387007	1.000000	<b>0.126209</b>	0.176215	0.396898	<b>-0.548997</b>
Dividend income to total income	0.875809	0.126209	<b>1.000000</b>	-0.001469	0.129440	<b>-0.019635</b>
Securities transactions income to total income	0.289292	0.176215	<b>-0.001469</b>	1.000000	0.105500	<b>-0.316998</b>



  
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Forex transactions income to total income	0.370 590	0.396898	<b>0.129440</b>	0.105500	1.000000	<b>-0.030416</b>
Miscellaneous income to total income	0.014 674	-0.548997	<b>-0.019635</b>	-0.316998	-0.030416	<b>1.000000</b>

the correlation matrix of variables of old generation private sector banks. Ratio of dividend income to total income is highly correlated with ratio of non-interest income than any other components of non-interest income of old generation banks. The increase in miscellaneous income for old generation private sector banks decreases the income from brokerage and service fees i.e., negatively correlated.

### 7. Conclusion

The results of this study show that the non-interest income is positively related with performance and risk because the increase in non-interest income increases both the performance and risk. The non-interest income is higher for private banks while comparing with other sector banks. Income from brokerage and service fee contributes more to non-interest income than other non-interest income sources for public and private sector banks whereas for foreign banks, forex transactions play a major role in contributing to non-interest income. The outcome of the study informs about different bank groups' extent of non-interest income and how that benefited or affected the bank groups' performance and risk. The stakeholders such as bankers, Reserve bank of India, customer, rating agencies, etc. may be benefited from this study because this study may help concerned authorities to draw certain framework and policies relating to non-interest income exposure.

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## A STUDY OF PSYCHOLOGY OF EMPLOYEES OF ZEAL EDUCATION SOCIETY, PUNE TOWARDS INVESTMENT WITH RESPECT TO MUTUAL FUNDS

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### ABSTRACT:

Mutual funds today are one of the most studied sectors in developed countries due to their efficient and effective role in reducing risk and increasing returns through professional management of funds. These funds boost the income of small investors as well as reduce their non-existent risk that need to be considered for accurate results. The funds has become extremely popular over the last 20 years. The same funds that used to be a vague tool are now a part of everyday life. Therefore, the main focus of this research paper is to identify the psychology of investors towards mutual fund investment decisions. The sample size for the study was 38 investors in Zeal Education Society, Pune.

### INTRODUCTION

Financial Product Act as a way to Invest and Provide investors to required financial security to the based on the risk-return profit of the financial product. In the past years, traditional financial products were in India by Banks (Credit account, Deposit account), Postal Department (recurring account, NSC Certificate), and Life insurance Corporation (LIC). If Fell meets all the needs of the investor, then the description of an investment. So, the point to start looking for the perfect investment is to examine the needs of the investors. If all these needs are met by an investment, then that investment can be called a perfect investment. Many investors and advisors spend a lot of time understanding the quality of the thousands of investments available in India. However, less time is spent to understand the needs of the investor and to ensure that the most appropriate investment are selected. In recent years with the advent of financial services industry liberalization various financial products were offered introduced facilities like Mutual Funds, Derivatives, Shares, Bonds, Life Insurance Schemes investment plans, pension and education plans etc. In fact so many investors are investing in Mutual Funds. It includes businessmen, public, government employee and college faculty as well.

### LITERATURE REVIEW:

- a) **Abhijit Chandra & Ravinder Kumar (March 2011): "determinants of Individual Investor Behavior.":** An Orthogonal Linear Transformation Approach" – The expected utility theory treats individual investment decision as a tradeoff between immediate use and deferred use. But Individuals do not always prioritize according to the scientific theory of economics. Recent studies on the behavior of individual investors have shown that they do not act rationally, on the contrary many factors influence their stock market investment decisions. The present study considers this theory of irrationality investors and examines their behavior in the context of investment decisions. We invest in whether or not certain psychological and contextual factors affect the behavior of a particular investor, and if so, which factors have the greatest impact. This information from previous literature on economics, finance, and psychology, we conducted a survey to find out what and to what extent it affects investors investing behavior. Our conceptual analysis, empirical findings, and the framework of perspective we have developed in the present study, provide five key factors that can influence behavior of an Indian Stock Market Investor. These findings individual investors and creating appropriate investment strategies based on their individual characteristics, giving them the maximum return on their investment.
- b) **Brian M. Lucey & Michael Dowling: "The Role of Feelings in Investor Decision Making"** – this paper surveys research on the impact of investor sentiment on equity prices and also develops a theoretical basis for understanding the emerging findings of this sector. The theoretical basis has been developed in the context of research in the field of economic psychology and decision making. Recent advances in understanding how emotions affect individual's general decision-making, especially in situations of risk and uncertainty [e.g. Lowenstein et al. (2001) Psychological Bulletin 127: 267-286], protected by review. The theoretical basis is applied to analyze existing research on investor sentiment [e.g. Kamastra etc. (2000)]. American Economic Review (forthcoming); Herschelfer and Schumacher (2003) Finance Journal 58 (3):1009:1032]. This research can be described in detail as changes in the sentiments widely perceived by people affect investor decisions and result in predictable patterns in predictable patterns in equity prices. The paper concludes by suggesting for future empirical and theoretical research.
- c) **Ch.pavani & P.Anirudh (July 2010): "Investors Behavior Analysis"** - Analysis of Investor behavior is based on studies based on investor demographics and psychology, considering criteria such as age, gender and income group, and considering the same psychological factors that attract an investor to that particular investment. This analysis describes



why an investor chooses a particular investment and the motives behind the investment and other objectives of the investment.

- d) Halil Tunah & Ferda Terdelen Tatoglu (2010): "The Analysis of Factors Affecting Investment Choices of Households in Turkey with Multinomial Logit Model" – Families don't spend all of their income but save some of it for a variety of purpose. One of the purpose is to invest. The choice of investment instruments affects not only the economic factors but also the socio-psychological factors. In a world where investment tools are so diverse, explaining how people make their investment choices will be useful for both portfolio managers and financial policy makers. This paper categorizes investment choices into seven types and factors influencing investment choices are analyzed using data from 1300 public surveys conducted in Istanbul, Turkey, using multinomial-logit models that can be adopted as a small sample of Turkey. The results show that the choice of home investment is affected not only by economic factors but also by social and personal factors.
- e) Nicolas P.B. Bollem (February 2006): "Mutual Fund Attributes And Investor Behavior" – I study the speed of investor's cash flows in socially responsible mutual funds. Consistent with evidence of loyalty of investor's cash flow in socially responsible funds than in traditional funds. I found evidence that cash flows in socially responsible funds are more sensitive to reduced positive returns than cash flows in traditional funds, and weak evidence that cash outflows in socially responsible funds are less sensitive to negative returns. These results show that investors find usefulness in socially responsible traits, especially when returns are positive.

### RESEARCH METHODOLOGY:

This Research focuses primarily on the psychology of investing in a particular context given to mutual funds for the benefits of investors. In this study, a survey method was adopted to collected primary information from salaried individuals. Questionnaire was made which was aimed to gather the required information from the faculty/participants.

### OBJECTIVE OF THE STUDY:

- 1] To know the various components of investment intentions from Investors.
- 2] To Study the correlation of Investor psychology with income group.
- 3] To study of the Investment preference of salaried individuals towards various financial Instruments.
- 4] To study of the association between demographic variables and the economic relationship between individuals with salary investment.

### HYPOTHESIS:

The numerous researches have shown that investment choices are influenced by various demographic factors relating to the person.

Researcher has formulated following Hypothesis for the test:

- High-income investors prefer to invest heavily on risk paths/way.
- The age of the investors' affects the choice of the investment.

### SCOPE OF THE STUDY:

The scope of the study is based on the following points:

- This study is done in Pune city Analyze the psychological involvement of investing in mutual funds and the interest to invest in the breadth of income group. Data analysis techniques such as tab, graphs, percentage and average have been adopted for analysis.
- Data has been processed of with the help of Microsoft Excel.

### Data Required for The Study:

To carry out research information such as conceptual knowledge about mutual funds; investing in a mutual fund requires an annual return on investment, household hold income and their demographics and investor objectives.

### Data Sources:

**Primary Data:** to assess the demographic characteristics of investor psychology, investment objectives will be collected from primary sources.

**Secondary Data:** Ideological knowledge and company profile will be gathered with the help of secondary sources. Books, magazines, journals and websites.

### Data Analysis:

Data collected from primary sources and secondary sources are analyzed. The analyzed data is generated in tabular form and diagrammatic form.



**Tools used for the Analysis:**

For meaningful result, the researcher has used bar charts, pie charts and line charts, in addition to Pearson's correlation, such as statistical tools.

**Data analysis is done in the below point:**

- Data analysis for investors' of Zeal Education Society, Narhe Pune.

**DATA ANALYSIS:**

**Data Analysis for Investors of Zeal Education Society:**

**Gender Wise Analysis:**

The table below gives the numerical value of the investor's gender wise investment.

**Table No. 01: Gender**

Sr. No.	Gender	Frequency	Percentage
1	Male	24	63
2	Female	14	37
	<b>Total</b>	<b>38</b>	<b>100</b>

The previous table shows the number of investors by gender as out of which 24 are male investors and out of 38 samples only 14 are female investors. The study concludes that the percentage of male investors for available male investments is higher than that of female investors.

**Age Wise Distribution of Investment:**

Following table shows age wise investment of the investors.

**Table No. 02: Age Wise Distribution**

Sr. No.	Age	Frequency	Percentage
1	15 – 25yrs.	3	8
2	26 – 35yrs.	25	66
3	36 – 45yrs.	9	24
4	46 – 55yrs.	1	2
5	Above 55yrs.	0	0
	<b>Total</b>	<b>38</b>	<b>100</b>

From the above table it can be illustrated that 66% of investors come in the age group of 26 – 30 years and 24% of them are in the age group of 36 – 45 years and only 2% of them are under 46 – 55 years of age. Thus the Age group from 26-35 invest more in different ways. Youngsters respond more to financial instruments such as Mutual Funds.

**Income Wise Dispersal:**

Many slots of income of Investors are presented in the table below.

**Table No. 03: Income Wise Dispersal**

Sr. no.	Annual Income	Frequency	Percentage
1	Below 1,00,000	0	0
2	1,00,001 – 2,00,000	4	11
3	2,00,001 – 4,00,000	24	63
4	4,00,001 – 6,00,000	7	18
5	Above 6,00,000	3	8
	<b>Total</b>	<b>38</b>	<b>100</b>



The previous table shows the annual income of the investors. The table explains that the maximum share is about 63% having annual income of 2,00,001 – 40,0,000 the minimum 0% share annual income is less than Below 1,00,000.

From the study it can be said that large size investors put 2,00,001 – 4,00,000 in the income slot.

#### Percentage Saving of Income:

The table below shows the array of Saving Pattern of Income.

Table No. 04: Percentage Saving of Income

Sr. No.	Saving (in %)	Frequency	Percentage
1	0% - 10%	22	58
2	10% - 20%	6	16
3	20% - 30%	7	18
4	30% - 40%	2	5
5	40% - 50%	0	0
6	50% and Above	1	3
	<b>Total</b>	<b>38</b>	<b>100</b>

The table above saves the percentage of income as it shows that 58% of investors save 0% - 10% of their income and then 18% investors save in array of 20% - 30%, while 3% investors in 50% and above slot.

Hence, every investor tries to save some part of their income for investment regardless of their income.

#### Investment of Savings:

The table below details/information about the Saving Investment.

Table No. 05: Investment of Saving

Sr. No.	Investment of Saving	Frequency	Percentage
1	Yes	23	60
2	No	15	40
	<b>Total</b>	<b>38</b>	<b>100</b>

Above table show the information about the frequency of investors those who are invest in their savings. The table shows the 60% of investors are investing some part of their income regardless of their income, and 40% of investors are not investing their income in saving.

#### Preferred Investment Avenues:

Tables shows the various avenues for the Investment

Table No. 06: Preferred Investment Avenues

Sr. No.	Investment Avenues	Frequency	Percentage
1	Insurance	17	22
2	PPF	10	13
3	Shares	4	5
4	<b>Mutual Fund</b>	<b>14</b>	<b>18</b>
5	Gold	9	12
6	Bonds	0	0
7	Fixed Deposit (Bank)	12	16
8	Real Estate	1	1
9	NSC	1	1
10	Company Deposits	0	0
11	Commodities	0	0
12	Any Other	9	12
	<b>Total</b>	<b>77</b>	<b>100</b>

The table above summarizes the various products preferred for investing. From the table above, it is clear that out of 100 samples, 17 investors invest in insurance and then 14 investors choose mutual funds, while only 1 investor prefers Real Estate and NSC.

The study concludes that most models invest in insurance followed by Mutual Fund.

Of the 100 samples found to be invested in mutual funds, 89 samples were taken for further analysis.

**Investment Objective:**

The following table shows the Investment Objective

**Table No. 07: Investment Objective**

Sr. No.	Investment Objective	Rank
1	Return	2
2	Time Span	6
3	Coverage of Risk	4
4	Tax Saving/Planning	3
5	Retirement Benefits	5
6	Future Needs	1

In mutual fund investors invest for a variety of purpose at their convenience. The above table summarizes several investment objectives when investing as Future Needs comes first as investors' value it followed by Returns and Tax saving/Planning. Retirement Benefits and Time Span are the last goal because it can be considered less important when investing.

**Time Frame for Investment:**

Following table show the Time Frame for the Investment

**Table No. 08: Time Frame for Investment**

Sr. No.	Period of Investment	Frequency	Percentage
1	Short Term (Up to 1 Yrs.)	9	26
2	Medium Term (1-3 Yrs.)	4	11
3	Long Term (More than 3 Yrs.)	22	63
	<b>Total</b>	<b>35</b>	<b>100</b>

The table above shows that 9 investors invest 26% for one year, while 4 investors invest 11% for 1-3 years whereas 22 investors 63% invest for more than 3 years.

It can be concluded that most investors opt for an extension of more than 3 years for the investment.

**Investment Expectations:**

The table shows the Expectations of Investors.

**Table No. 09: Investment Expectation of Investors**

Sr. No.	Investment Expectations	Frequency	Percentage
1	Interest/Dividend	18	25
2	Capital Appreciation	7	9
3	Liquidity	10	13
4	Security	22	29
5	Increase in Asset Value	18	24
	<b>Total</b>	<b>75</b>	<b>100</b>

Investors have different investment expectations from mutual fund returns. The above Table Explain the expected return on investment as security seems to be number one (29%) then Interest/Dividend is second number (25%) and the increase in Asset





Value (24%). Capital Appreciation is the last number because people are not invest in the Capital Appreciation, they give first preference to security, for secure their asset.

**Investment Decisions:**

The following table provides information related to the investment decision. This investment decision has been measured in five points as follows:

**Table No. 10: Investment Decision**

Sr. no.	Investment Decision	Frequency	Percentage
1	Safety	30	38
2	Liquidity	8	10
3	Tax Saving	12	15
4	Capital Appreciation	10	13
5	Return	19	24
	<b>Total</b>	<b>79</b>	<b>100</b>

From the above table we can understand, the investors give the first preference to Safety. 30 Investor's taking decision to invest their investment in Safety then 19 investor are invest for Return benefit and only 8 investors are invest in Liquidity.

So, investors gives first preference to Safety and has been ranked 1<sup>st</sup> followed by Return whereas investors give last/least preference to the Liquidity and has been ranked 5<sup>th</sup>.

**Investment Allocation in several Funds:**

The table below shows the various options used by the investor during the investment.

**Table No. 11: Investment Allocation in several Funds**

Sr. No.	Investment Allocation	Frequency	Percentage
1	Debt	8	27
2	Equity	8	25
3	Balanced/Hybrid	15	48
4	<b>Total</b>	<b>31</b>	<b>100</b>

From the table above, it can be inferred that the balanced fund is often preferred as 48 investors opt for Balanced/Hybrid fund which is followed by debt fund i.e. by 27 investors and last one is Equity fund as 25 investors preferred it.

**Investment Preference:**

The following table shows the preference of investors in Mutual Fund.

**Table No. 11: Investment Preference**

Sr. No.	Investment Preference	Frequency	Percentage	Rank
1	Consistency of Returns	15	30	2
2	Finance Performance	7	14	3
3	Brand Image	4	8	4
4	Div. payout/Reinvestment	3	6	6
5	Growth	17	34	1
6	NAV	4	8	5
	<b>Total</b>	<b>50</b>	<b>100</b>	<b>-</b>

Investors in Mutual Funds invest with a variety of priorities depending on their understanding of the subject. The above table summarizes several investment preferences when investing as it appears that the Growth is number one due to the high importance given to investors and investors can consider it as the least important priority when reinvestment.

**Investment Reasons:**

The table below shows the reasons of the Investment.

**Table No. 12: Investment Reasons**

Sr. No.	Investment Reasons	Frequency	Percentage
1	Past Performance	8	21
2	Portfolio	8	20
3	Brand Name	5	11
4	NAV	3	8
5	Other	16	40
	<b>Total</b>	<b>40</b>	<b>100</b>

The previous table shows the various reasons for investors to invest in Mutual Fund that they prefer according to their needs. The above table describes how 21% of investors choose the company's past performance, followed by 20% investors for Portfolio whereas 11% investors go with Brand Name of the Company.

**Testing of Hypothesis:**

**Researcher has formulated hypothesis for the test:**

- 1] High yielding investors prefer to invest heavily on risky paths/ways.
- 2] The age of the investor affects the investment choices.

Based on the correlation analysis, the researcher rejected both hypotheses as there was no correlation between ages and variables taken for testing and income and income and other changes.

**FINDINGS FROM THE STUDY**

- The percentage of Male investors is higher than that of Female investors for investing the many ways available.
- Youngsters respond more to financial instruments such as Mutual Funds.
- There is a tendency among investors to save their income for investment reasons regardless of their income. Investors understand that Mutual Funds are a safe bet and they also have a large amount of disposable income and risk of taking capacity.
- It has been found that all investors recognize the importance of investing.
- There are many ways available in the market for investors. But after Mutual Funds, investors invest heavily in insurance.
- Most of the investors choose a time frame between 1 to 3 years for the investment. It may be because the funds which have got lock in period of three years delivers tax benefit and long duration may give better returns and quick liquidity.
- Investors have different investment expectations from Mutual Fund returns. According to the safety comes first.
- It is assumed that investors prefer security and are ranked first and liquidity is ranked low and ranked fifth.
- Investors in Mutual Funds invest with a variety of priorities based on their understanding of the subject. Studies show that Growth is ranked first and Dividend payout is ranked last.

**CONCLUSION**

A successful MF requires a thorough knowledge of the Indian Stock Market and the mindset of a small investor. According to this study, MF seeks to understand the financial behavior of investors in terms of planning and selection. Post-survey developments are likely to have an impact on the findings. Behavioral tendencies usually take time to stabilize and they become uncomfortable even with a slight change in any affective variable. Therefore, in order to develop useful models, surveys like the one now need to be conducted periodically. However, it is hoped that the survey finding will have some useful managerial implications for AMC in designing and marketing their products.





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# A Study of Financial Performance With Respect To Loans and Advances

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**Abstract :** Entire Study report is related with financial performance with respect to loans and advances, in Dhanashri multi-state co-operative credit society Limited. Main objective of loan and advances is to earn profit for the bank. The Methodology used in the project is analytical. The Data is obtained from Secondary Sources. Annual report and internet are the main Sources of data collection. The data analysis is done through mainly with help of calculation and graphs of loan and advances.

**IndexTerms - Financial Performance, Loans, Advance, profit.**

## 1. Introduction

Money is an essential element for any business organization, because it fulfill the short term and long term requirement of funds. It is not possible for owner to bring all the money by himself, so owner takes loans from bank.

Bank provided loans to bossiness for particular period. The loan amount is required to be repaid along with the interest, within a period given by bank. Money is an important element in every business organization without money business can't run properly. Loan means fund borrowed from bank, repayable after period given by bank. Loan is a debt and long term loan it has more legal formalities. Loan may or may not be secured.

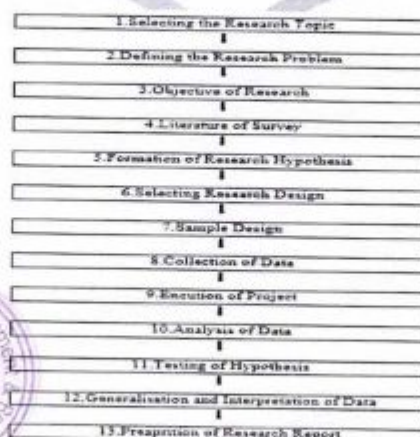
Advances means fund provided by the bank to organization for a specific period, to repayable after short duration given by bank. It is a credit facility and short term loan it has less legal formalities".

## 2. Research Methodology

"Research comprises of two words, "Re" and "Search". While "Re" implies a respective or iterative process, "search" denotes making a thorough examination of or looking over carefully in order to find something. Different researcher have defined research in various way due to its wide scope. But, in general research can be defined as a scientific process where new facts, ideas, and theories are established and proved in different areas of knowledge. Research aims at adding to the exiting stock of knowledge for the betterment of world." "Research is a systematic activity directed towards discovery and the development of an organized body of knowledge." [1]. "Research is a systematic, formal, rigorous and prices process employed to gain solutions to problems or to discover and interpret new facts and relationship" [1].

### 2.1. Research Process Chart:

Discovering and analyzing a range of significant and reliable information about a particular issue or problem with systematic planning is known as research process. The process involves several steps for complete analysis of the research problem. The steps in research process are described below,



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## 2.2. Research Method Used For This Project:

Analytical Research Method: "Analytical research is a specific type of research that involves critical thinking skills and the evaluation of facts and information relative to the research being conducted. A variety of people including student, doctors and psychologists use analytical research during studies to the most relevant information. From analytical research, a person find out critical details to add new ideas to the material being produced.

Research of any type is a method to discover information. Within analytical research article, data and other important facts that pertain to a project is completed, after the information is collected and evaluated, the sources are used to prove a support an idea.

Some researchers conduct analytical research to find supporting evidence to current research being done in order to make the work more reliable. Other researchers conduct analytical research to from new ideas about the topic being studied.

### 2.2.1. Data Collection:

Data collection is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant outcomes. Data collection is component of research in all fields of study including physical and social sciences, humanities, and business. The goal for all data collection is to capture quality evidence that allows analysis to lead the formulation of convincing and credible answer to the questions that have been posed."

There are two types of data collection are as follows,

#### 2.2.1.1. Primary Data:

Primary data means original that has been collected specially for the purpose in mind. It means someone collected the data from the original source first hand. Data collected this way is called Primary Data. Primary data is more costly than secondary data. For example: Questionnaire, interviews, etc.

#### 2.2.1.2. Secondary Data:

Secondary data is data that has been collected for another purpose. Such data was already published by organization. Secondary data is low costly.

For this Study Report Secondary data collection method is used.

## 3. Sampling method:

Sampling is a process used in statistical analysis which is predetermined number of observations is taken from larger population. The methodology used to sample from a larger population depends on the type of analysis being performed, but it may include simple random sampling or systematic sampling. Convenience sampling method is used for this study.

### 3.1. Convenience Sampling Method:

Convenience sampling also known as grab sampling, accidental sampling that involves simple being drawn from that part of population that is close to hand. This type of sampling is most useful foe pilot testing.

**Sample size:** Population size is 150 customers in last 5 years and sample size is 114 customers.

While deciding sampling size and group of customers, bank has set some guidelines as:

1. Loaner must have saving account in bank, without account and transaction bank cannot grant permission for loan.
2. Minimum age of loaner is 18 years and maximum age of loaner is 65 years.

### Required Documents for Loan: (for all type of loans)

1. Loan application form.
2. Loan approve amount.
3. Search report of land.
4. Valuation report of land.
5. Income certificate of loaner ( annual)
6. Residential certificate of Grampanchayt.
7. Loaner required one 100 rupee stamp ,

Guarantor 1: Required one 100 rupee stamp

Guarantor 2: Required one 100 rupee stamp

(RS.1, 00,000 loan amount require RS.100s one stamp)

### Loaners and Guarantors required document:

1. Identity size photo two
2. 7/12 & 8A
3. Aadhar card and pan card zerox
4. Postal tickets 50 ( RS.1)

### Other:

1. Quotation of land ( if loan amt.is more than 1 lakh rupees)
2. No Dues certificate ( if any dues )

  
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4. Graphical Representation of Questionnaire:

Q.1 On which bank you depend for your regular transaction?

Table 1

Bank Name	Data
DHANASHRI BANK	46%(52)
BANK OF INDIA	22%(25)
ICICI BANK	15%(18)
OTHER	17%( 19)
<b>TOTAL NO. OF PEOPLE</b>	<b>114</b>

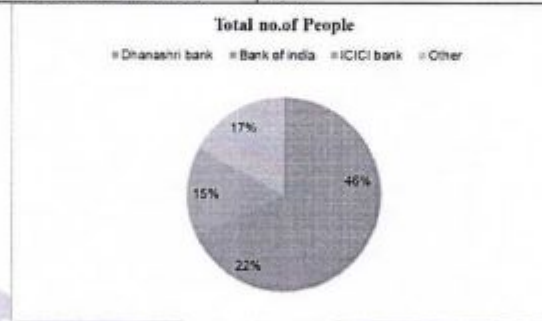


Figure 1

**Interpretation:**

1. It has been observed that approximately 46% correspondents are using the service of DHANASHRI bank for their daily transaction.
2. Around 22% people are using BOI bank for their transaction and only 15% & 17% of people are using ICICI and other banks service.
3. It also shows that Dhanashri bank have the biggest market position as per my sample.

Q.2. Which bank do you prefer for taking loans?

Table 2

Bank Name	Data
DHANASHRI BANK	81%(92)
BANK OF INDIA	16%(18)
ICICI BANK	3%(4)
<b>TOTAL NO. OF PEOPLE</b>	<b>114</b>

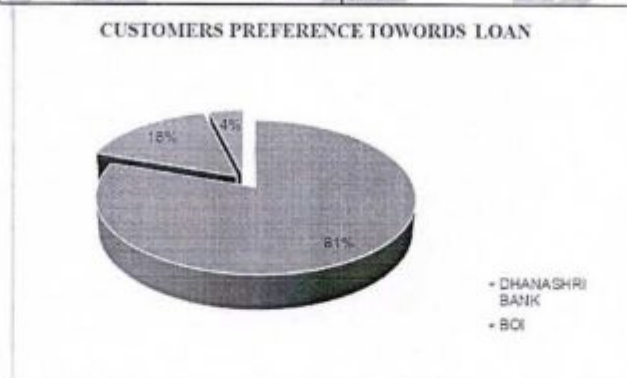


Figure 2

**Interpretation:**

1. According to my sample size 81% of people prefer Dhanashri bank loan, but some people prefer BOI & ICICI bank for loan because of they have their account in different bank & it is easier for them to get loan from their bank.



  
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Q.3 Which loan product of Dhanashri bank have you used?

Table 3

Bank Name	Data
Personal Loan	43%(49)
Medium Term Loan	31%(36)
Loan on Deposit	16%(18)
Other	10%(11)
<b>Total No. of People</b>	<b>114</b>

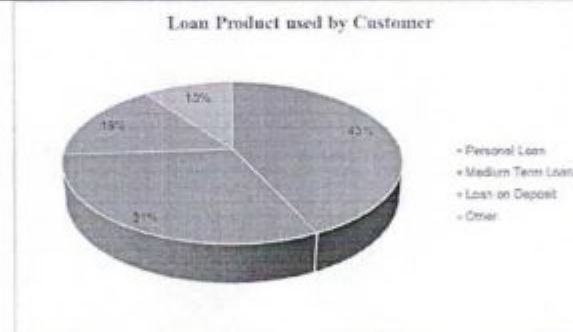


Figure 3

**Interpretation:**

1. From the sample size 114 of people are using the Dhanashri banks loan product.
2. 43% people took Personal Loan from bank.31% of people took Medium term loan, 16% of people took Loan on Deposit and remaining 10% of people took other loan product from bank.

Q.4 Which features do you like most in Loan segments of Dhanashri bank?

Table 4

Bank Name	Data
Less Paper Work	61% (69)
Attractive Interest Rate	11%(13)
Simple & fast processing	8%(9)
Longer Repayment Period	20%(23)
<b>TOTAL NO. OF PEOPLE</b>	<b>114</b>

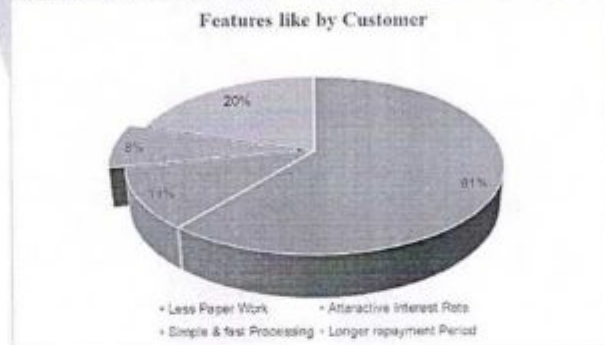


Figure 4

**Interpretation:**

1. Most of the people like the less paper work and Longer Repayment period. It's easier for people to repay the whole amount of loan with interest with longer repayment period.

Q.5. What do you feel about the services providing by Dhanashri bank on Loan and advance products?

Table 5

Bank Name	Data
Excellent	8%(9)
Good	75%(86)
Satisfactory	17%(19)
<b>TOTAL NO. OF PEOPLE</b>	<b>114</b>



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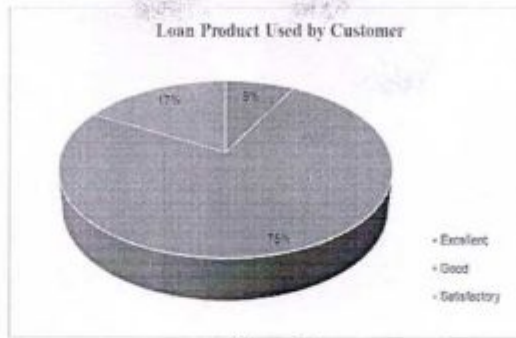


Figure 5

**Interpretation:**

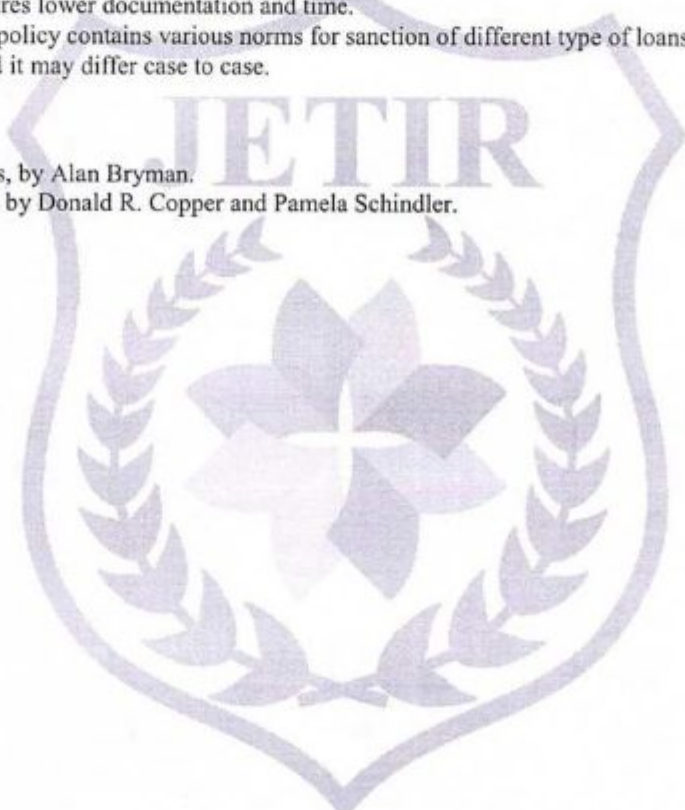
1. From this it is clear that the service provided by bank in its advance product is excellent in between the customer.
2. All of them satisfy with the product provided by Dhanashri bank. 8% of people said that the service is excellent, 75% are said that is Good and remaining 17% people said that the service is Satisfactory.

**5. Conclusion**

1. The easy process is the reason there for customers take loan from bank.
2. The loan process requires lower documentation and time.
3. Dhanashri banks loan policy contains various norms for sanction of different type of loans.
4. Norms are flexible and it may differ case to case.

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## A STUDY ON FUNDAMENTAL ANALYSIS OF AUTOMOBILE COMPANIES IN INDIA

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### ABSTRACT

The term financial market often used to refer to that market used to raise funds. A financial market in which people trade financially securities and derivatives such as futures and options at lower transaction prices. An investor wants to invest his money in different types of securities but not everyone the investment carries a certain amount of risk and returns as a reward. But before making an investment in specific security he makes the analysis on the particular security. Fundamental analysis of Indian automobile companies including five major ones automobile companies considered this, which is having a big impact on Indian stocks market, in which the investors is given proper guidance on which stock to choose future investments and what not. This research has exploratory research design selected based on secondary data. Years from 2014-2018 for the top five automobile companies are Maruti Suzuki, Ford, Mahindra & Mahindra, Tata Motors and Toyota Kirloskar.

**KEY WORDS:** Fundamental Analysis, Automobile, NPA, ROE, P/E Ratio.

### INTRODUCTION

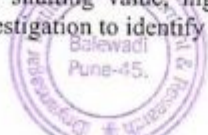
Fundamental analysis studies the basic fundamentals that affect the economy of a particular elements, such as a stock of currency. It tries to predict price action and trends by analyzing the economic indicators, government policy, social and other factors in a business cycle framework. If the fundamental analyst would like to buy the stock. The current market price is below its original value and when the stock sells the market price is much higher than the intrinsic value. Therefore, fundamental analysis is important in stock picking.

The Indian automobile industry became the 4th largest in the world with sales increasing 9.5% year-on-year to 4.02 million units (excluding two wheelers) in 2017. It was the 7th largest manufacturer of commercial vehicles in 2017. The two wheelers section dominates the market in terms of volume due to the growing middle class and youth population. Moreover, the growing interest of companies in finding companies in rural areas the market helped the growth of this sector.

India is a major auto exporter and has strong expectations for export growth in the near future. Automobile exports grew by 20.78% between April and November 2018. It is expected to grow at a CAGR of 3.05 % during 2016-2026. In addition, several initiatives by the government of India and the major automobile players in the Indian market are expected to make India a leader in the two-wheeler and four-wheeler market in the world by 2020.

### LITERATURE REVIEW

- 1) T. Mallikarjunappa and Shaini Naveen (2016) combined examination on comparative analysis of risks and return in respect of CNX Bank Nifty Stocks. This test reduces the risk and return to the keeping money segment. They consider the implementation of the 12 recorded banks in the Nifty. The bank index examination basically examines the implementation of managing account reserves considering the required rate of return and the risk of a particular stock in light of various opportunity factors, Market conquests and othereconomic variables.
- 2) Dr. AnubhaSrivastava directed a through inquiry into the performance of automobiles Industry. Notable car institute with Maruti in India in that review, researcher exam Mahindra and tata. The implementation of the vehicle premises was directly identified in this investigation with the economic system of the country. In addition it has also been found that Mahindra and Mahindra are the most connected extensive requests on the auto list and the proportion of Indian auto than the other two organizations bring countless open doors for these players.
- 3) Dr. S. Krishnaprabha and Mr. M. Vijaykumar led the exam on risk and return analysis selected stock risk and return examination in India assumes an essential role in fundamental leadership the process of most bookmakers. Long term financial experts may benefit from the low market volume volatile when compared to the market and with the prices in it, there is less change in the offer speculators can ask when the offer will increase. Fast moving, the lion's share of information technology consumer goods, pharmaceutical sectors offer higher returns as baking and automobiles go awry area.
- 4) Dr. M. MuthuGopalkrisnan and DR. K.V. Ramanathan combined studies on instability in trading Indian securities- Post and pre season period study. In this investigation, researchers attempt to break price void in Indian securities exchange. Evaluating market depression money-related masters will help destroy their volatility or determine their risk record of daily opening price, shutting value, high using sectoral record Nifty on 28-03-2013 and low cost of 31 selected institutions. This investigation to identify the relationship of instability in Pre-recession and post-recession periods.





- 5) S. Nagarajan and K. Prabhakaran directed the investigation of Equity Analysis of selected FMCG companies listed on the NSE. They used standard deviations, a variety of co-profiles, and beta offers of various selected FMCG institutions are breaking down.
- 6) Dr. P. Vikkreaman and P. Vardharajan checked the cost of selected institutions in the vehicle industry from 2004 to 2007. They use beta and alpha methods to reduce the risk car instution back. The arrival marker and efficient risk measurement make reasonable assessment of enterprise choice in these institutions.
- 7) Vijay Bhasker says the Indian automobile industry the largest industry the word and the growing number of foreign companies in Indian and an important sector of the economy Employment in the market is growing and will continue to grow significantly.
- 8) Dharmaraj and N. Kathirvel Economic analysis appreciation for the performance and growth of selected Indian auto companies she has shown by recent past performance and says companies are strong and they have good ability to grow in the future.

#### OBJECTIVES OF THE STUDY

- To understand the performance and measure the risk of the Equity Fund by using different parameters.
- To study fundamental analysis of Equity Fund using data interpretation.
- To analyze the fundamentals of sample automobile companies selected for study.
- Analyze the automobile sector of India through fundamental analysis and assist the investors in making investment decision.

#### Limitations of the study

- The analysis is fully based on secondary data and hence the accuracy of data is the main concern.
- The study is based on past performance of stock and the data since the secondary suffers from the limitations of secondary data.

#### RESEARCH METHODOLOGY

Research is the systematic process in which the researcher collects the information & analyses it for own understanding. Research helps to increase the knowledge about the particular topic. This study analyzed the equity of selected automobile companies. This helps the investors in understanding the risk and return characteristics of the equity of automobile industry in Indian Stock Market.

#### DATA COLLECTION

Data collection is a process of organizing the data. This study is entirely based on secondary data collected from the NSE website (<https://www.nseindia.com/>). In addition, data has been collected from published sources as well as websites, newspapers (Business standard, Economic times) & management, scholar, researcher etc. Data collection is done for analyzing and interpreting. There are two types of data collection are as follows:

#### PRIMARY DATA

The primary data is a fresh and used for first time. I have collected primary data during the observations while my research.

#### SECONDARY DATA

The secondary data is an old or used & existing or not for the first time. The secondary data can be collected through following ways:

1. Internet
2. Books
3. Journals

#### SELECTION OF SAMPLE COMPANIES

The following are such companies for conducting the study that forms a sample size of 5 companies. The name of those 5 companies are as follows:

- 1) Maruti Suzuki
- 2) Ford
- 3) Mahindra & Mahindra Ltd
- 4) Tata Motors Ltd
- 5) Toyota Kirloskar

#### TIME PERIOD

5 Years, 2014-2018.

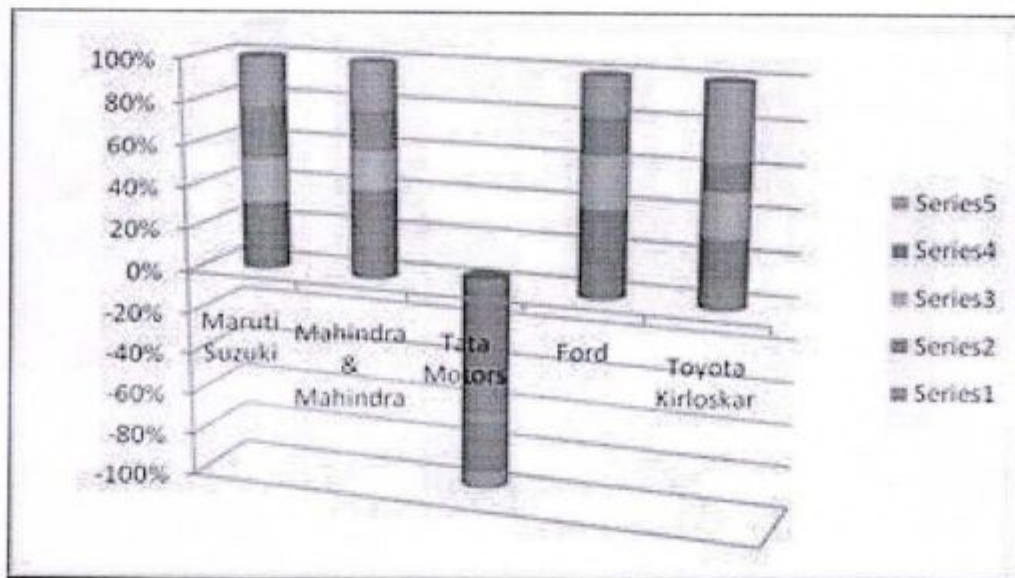
#### DATA ANALYSIS AND INTERPRETATION





**Net Profit Margin:** Percentage of income remaining after all operating expenses, there are interest, taxes and preferred stock dividends (but not common stock dividends) deducted from the company's total revenue. NPM shows how capable the company is get all direct and indirect expenses for every rupee of revenue. Toyota Kirloskar earned 509.99 for NPM of selected companies. The next Tata Motors earned 5.07 NPM has higher scores than all the related companies.

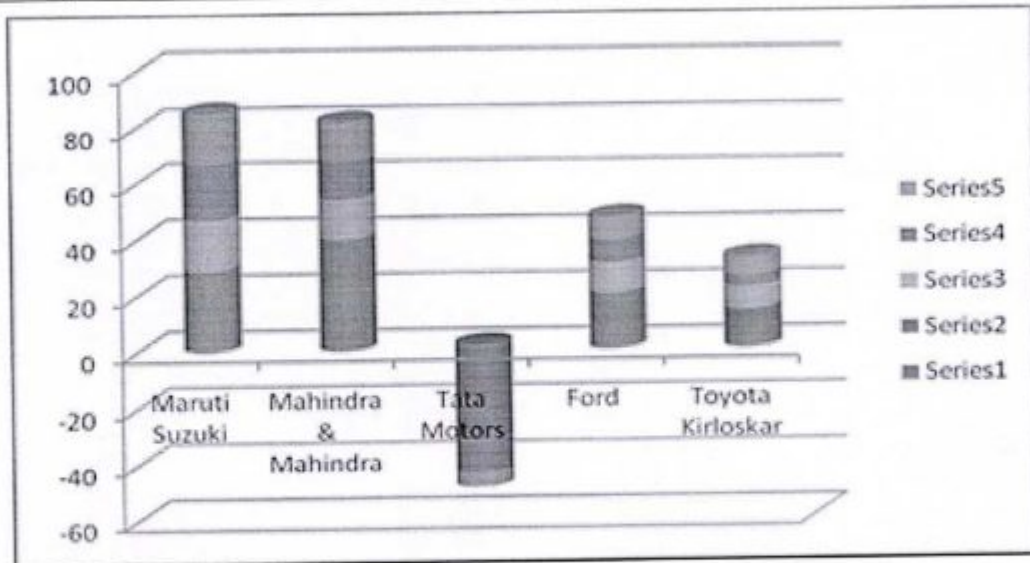
Year	Maruti Suzuki	Mahindra & Mahindra	Tata Motors	Ford	Toyota Kirloskar
2014	6.36	9.27	0.97	4.28	686.27
2015	7.42	8.52	-13.05	5.86	1331.16
2016	9.32	7.83	-0.14	5.86	1268.31
2017	10.80	8.27	-5.48	4.28	816.25
2018	9.68	8.94	-1.75	4.28	2137.48
Mean	8.71	8.56	-3.89	4.91	1247.89
SD	1.60	0.50	5.07	0.77	509.99



#### RETURN ON EQUITY:

Return on equity ratio basically measures the rate of return owners of the company's common stock take money from their shareholders. Return on equity shows how good a company is in getting a return on investment received from its shareholders. ROE indicates Tata Motors earned 12.14 equity, Mahindra & Mahindra earned 3.25 scores.

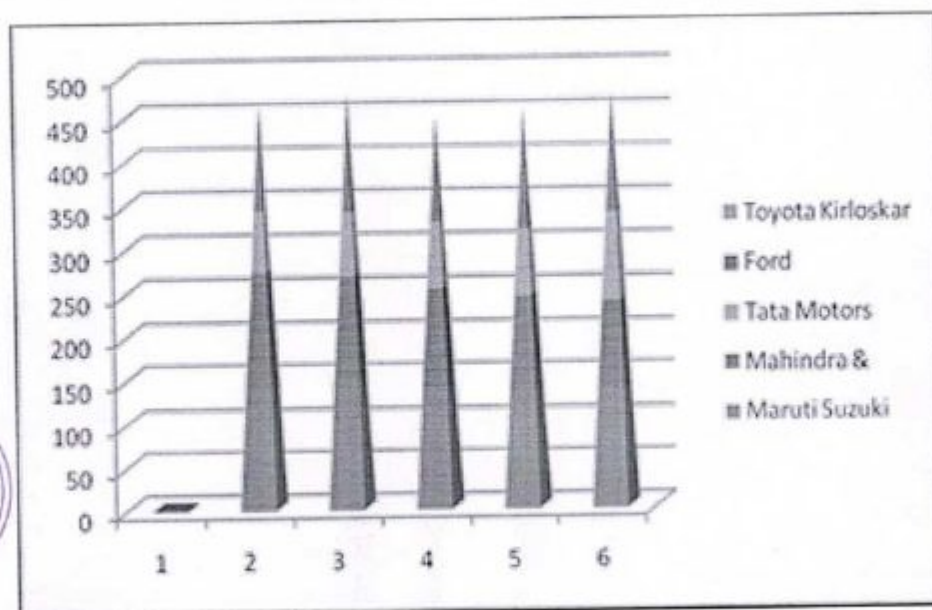
Year	Maruti Suzuki	Mahindra & Mahindra	Tata Motors	Ford	Toyota Kirloskar
2014	13.26	22.39	1.74	7.69	6.97
2015	15.65	17.25	-31.93	12.11	6.51
2016	17.95	14.29	-0.26	10.80	8.24
2017	20.17	13.60	-11.48	8.16	3.79
2018	18.49	14.37	-5.13	8.16	6.64
Mean	17.10	16.38	-9.41	9.38	6.43
SD	2.40	3.25	12.14	1.74	1.45



**Asset Turnover Ratio (%):**

An efficiency ratio that measures a company's capacity earn sales from his assets by comparing bet sales with average total assets. It is indicates Tata Motors turnover ratio 10.7 earned, Next score to Mahindra & Mahindra its 8.87.

Year	Maruti Suzuki	Mahindra & Mahindra	Tata Motors	Ford	Toyota Kirloskar
2014	143.11	129.46	68.94	119.88	0.98
2015	148.93	118.21	72.67	133.39	0.46
2016	137.19	115.14	75.59	118.03	0.63
2017	132.34	110.22	75.22	136.17	0.45
2018	134.34	102.67	99.35	136.17	0.30
Mean	139.26	115.14	78.36	128.72	0.56
SD	5.98	8.87	10.76	8.06	0.23

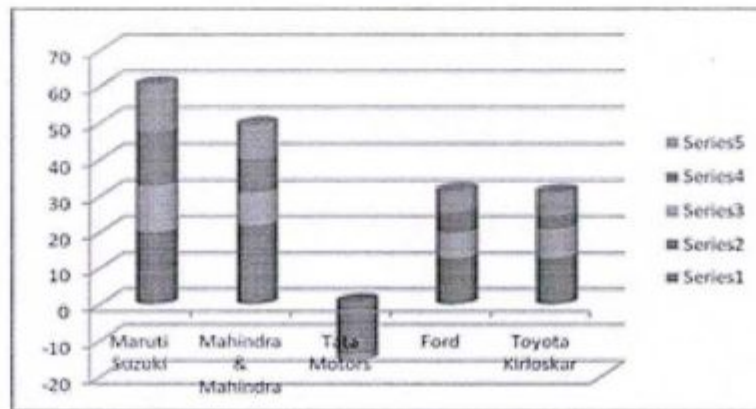




**Return On Assets:**

It measures the how much profit the company makes percentage of the value of his total assets. ROA indicates Tata Motors earned 3.65, Maruti Suzuki earned 1.85 scores, compared with the all the companies get the high earning in ROA.

Year	Maruti Suzuki	Mahindra &Mahindra	Tata Motors	Ford	Toyota Kirloskar
2014	9.08	12.01	06.67	5.14	6.79
2015	11.04	10.08	-9.48	7.82	6.19
2016	12.86	9.02	-0.10	6.91	8.02
2017	14.45	9.11	-4.12	5.83	3.68
2018	13.07	9.18	-1.74	5.83	6.45
Mean	12.1	9.88	-2.95	6.30	6.22
SD	1.85	1.13	3.65	0.94	1.14



**SUGGESTION**

1. All the companies performed over a period of ten years. They have performance also good and investors can invest their money in shares of these companies.
2. NPM represents the highest earning from Toyota Kirloskar, which is the best investment out of five.

**CONCLUSION**

A small investors may not have a large amount of investment. Therefore, he cannot invest his money in different areas. Therefore, it has a lot of potential to diversify its investments the restrained prudent investor should first try to identify certain areas and then move on for a comprehensive study of the field. Let's look at the basics carefully area before making any investment decision. This paper helps us to know taking a basic look at the automobile sector in India sample of the top five automobile companies.

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# Emotional Intelligence and Organizational Citizenship Behavior: The Mediating Role of Job Satisfaction

Asita A Ghewari\* and Satish N Pawar\*\*

The research reported in this paper investigates the interlinkages among Emotional Intelligence (EI), Job Satisfaction (JS) and Organizational Citizenship Behavior (OCB). The aim of this research is to understand the role of JS as a mediator in the relationship between EI and the various dimensions of OCB. A sample of 635 IT employees in India participated in the empirical study. Bootstrapping technique using Structural Equation Modelling (SEM) was used to test the research hypotheses. Findings of the research reveal that employees who are high on EI display more discretionary behaviors and are more satisfied with their jobs. Results further suggest that job satisfaction partially mediates the hypothesized relationship between EI and OCB. As this research used a cross-sectional design based on self-report data, it could lead to biased results, which is a limitation of this study. Organizations should focus on developing high EI among their employees to enhance their job satisfaction and OCB. The present research contributes to a better understanding on the interrelationships among EI, JS and OCB, especially on the role of emotional intelligence in enhancing OCB through job satisfaction.

**Key Words:** Emotional Intelligence, Job Satisfaction, IT employees, Mediation, and Organizational Citizenship Behavior

## INTRODUCTION

Organizational Citizenship Behavior (OCB) has several benefits to the organizational outputs, such as, organizational productivity, revenue, effectiveness, efficiency, reduced cost, customer satisfaction and turnover (Podsakoff and MacKenzie, 1994; and Podsakoff, Whiting, Podsakoff and Blume, 2009). It indicates that OCB is one of the

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essential aspects of organizational growth. Organ (1988, p. 4) has defined OCB as "individual behavior that is discretionary, not explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization". Such behavior of employees is typically not acknowledged by formal reward system of organization (Organ, Podsakoff and MacKenzie, 2006). OCB of employees improve the organizational performance. Several research studies were undertaken to identify the antecedents and consequences of OCB. Employees' own characteristics, job characteristics, organization characteristics, and leadership behaviors stimulate the OCB among the employees. (Podsakoff, MacKenzie, Paine and Bachrach, 2000).

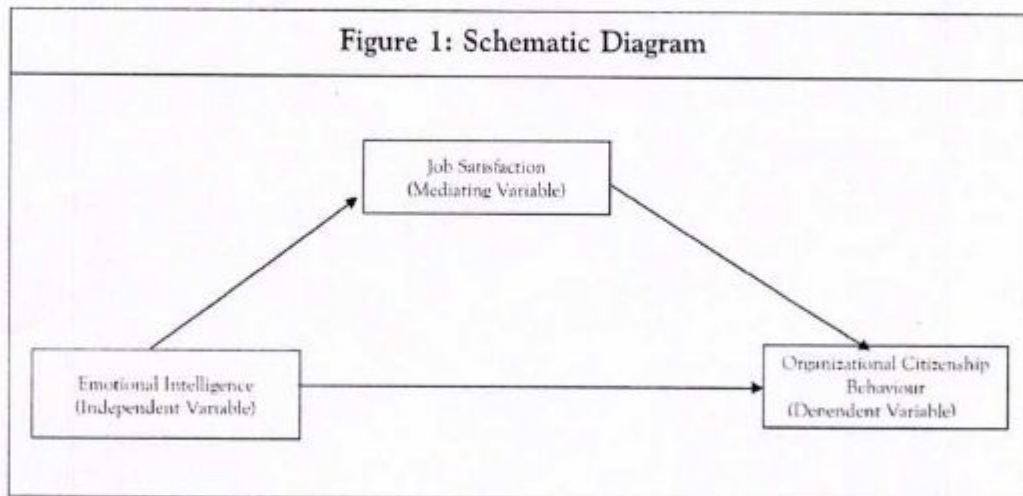
OCB of employees is one of the key factors, which influences the organization (Podsakoff, Whiting, Podsakoff and Blume, 2009). OCB is considered as a dependent variable in the several studies of OB (Azmi, Desai and Jayakrishnan, 2016). To enhance the efficiency and effectiveness of an organization, organization has always been seeking for several ways and means (Ng, Ke and Raymond, 2014). Key contributor to the organizational productivity and effectiveness is OCB. Schultz and Schultz (2010) argued that employees have higher satisfaction when they depict OCB, which helps it to organizational success. Organ (1988) and Organ *et al.* (2006) pointed out that OCB contributes positively not only to organizational success but also to individual success. OCB has a significant effect on individual job performance (Habeeb, 2019a).

OCB can be developed among the employees through positive and supportive organizational environment and attitude. Furthermore, for any organization to be successful, it is required that employees should exhibit citizenship behavior. Employees should be helpful and careful about the workplace to create positive environment. (Day and Carroll, 2004). Organizational soldiers (employees) show behavior, which is voluntary, go beyond role description and not recognized in the formal reward system are considered as exhibiting OCB behavior, which will help in enhancing the performance (Salajeghe and Farahmand, 2014). This indicates that employees should exert their duties beyond the formal scope to improve effectiveness of organization. Owing to the importance of volunteer behavior in the organizations' success, scholars paid more attention to OCB (Podsakoff, Podsakoff, MacKenzie, Maynes, and Spoelma, 2014). Kapil and Rastogi (2018) proposed that citizenship behavior of employees can be self-rewarding and create positive behavior. Bolino and Turnely (2003) in their empirical study indicates that employees' citizenship behavior is an extra mile behavior and difficult for organizational competitor to imitate this asset. Formal HRM system and informal system can foster the citizenship behavior. Job satisfaction, organizational justice, organizational commitment, personality characteristics, psychological characteristics, task characteristics, organizational characteristics, emotional intelligence, and leadership behavior are commonly studied as antecedents of OCB. (Kittikunchotiwt, 2017; Ramadhan, Saudi and Yenni, 2018; de Geus, Ingrams, Tummers and Pandey, 2020; Gan and Yusof, 2018; Grego-Planer, 2019; and Ingrams, 2020).



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An emotionally intelligent employee, who is satisfied, will boost employees' discretionary behavior in the organizational context. Moreover, it is believed that a dissatisfied employee will accumulate negative attitude and poor emotional condition, eventually lead to decreased helpful nature of employees. The personality trait will boost positive behavior of an employee if he/she has positive attitude towards the organization. Therefore, these reviews help to build following hypothesis:

*H<sub>1</sub>: Job Satisfaction can mediate the relationship of emotional intelligence and organizational citizenship behavior.*

## METHOD

### SAMPLE

A Descriptive research design has been adopted to carry out this research. Purposeful sampling (maximum variation) method was used to ensure maximum variation in sampling. Through this various IT organizations at India level were approached. The said sample consisted of IT professional (employees, manager, senior manager, team leader etc.). In all, 851 employees were contacted from various firms through email and social media; but only 635 valid questionnaires were recovered. The response rate is 74.68%. The participants worked in various departments of the organization and had varied knowledge and experiences as employees, managers, senior managers, and team leaders.

As per the analysis of demographic information: 50.4% participants are Female and 49.6% are Male; 52.5 % participants are Post Graduate and 47.5% completed their College Degree; 67.5 % participants age is in between 20 to 30 years, 23.9% participants age is in between 30-40 years, 7.2% participants age is in between 40-50 and 1.5 % participants age is above 50.



that a teacher, who is aware of his own emotions, has been capable in recognizing colleagues' emotions and responds positively. Increased individual emotional capabilities will lead to promotion of extra role behavior in the organization. Employees who are emotionally well resourced have ability to understand other's feelings and offer help to upset associates at the workplace (Chughtai, Shah, Maeenuddin, Hafeez, Ahmad and Hussain, 2020). Jain (2012) concluded that EI contributes to the OCB performance, but it could be weaker when impression management motives come into picture. Along with this, the study indicated that only EI competency cannot provide positive outcome, it also depends on individual or organizational traits. Emotional intelligence enables the employee to recognize feelings of co-worker, helps employee to control the emotions (Carmeli and Josman, 2006). Miao, Humphrey and Qian (2017) pointed that emotionally savvy is likely to be social and helpful; can recognize others' need and has ability to help others. Relationship of EI and OCB is stronger in labor intense industry. Cohen and Abedallah (2013) suggested that emotionally intelligent employees have great understanding of their own and other emotions, which would be helpful to them in building good relationship and offering help to their colleagues. Employees who have higher EI can recognize emotionally disturbing situations at workplace and lend helping hand. Employees with high level of EI may avoid complaining about work conditions and empathetic towards the organization. As EI offers alert about others' feelings, it helps and manages employee to interact within work groups. Shah, Chughtai, Karimullah, Hafeez, Ahmad and Hussain (2020) suggested that, if a person can regulate, control, and manage emotions, then he/she can overcome his/her negative personality characteristic like psychopathy that followed positive outcome, which is OCB. Employee's traits can boost them to participate in OCB or to refrain from Counterproductive Work Behavior (CWB) (Yu-Jie, Kui-Yun, Kai, and Yao-Zhong, 2021).

This leads to following hypothesis:

*H<sub>3</sub>: Employees' emotional intelligence affect employees' organizational citizenship behavior.*

#### **Job Satisfaction Mediates the Relationship between EI and OCB**

Researchers found that job satisfaction play a role of mediator in different relationship such as between organizational justice dimensions and employee behavior outcomes such as OCB, deviance behavior and intension to leave (Mashi, 2018); Perception of Organizational Justice and Intend to Leave work (Bayarçelik and Findikli, 2016); and between Employee Engagement and Organizational Performance (Khalaf, Hmoud and Obeidat, 2019). In analysing OCB, researchers also found the job satisfaction in the mediating role (Akbar and Shahzad, 2017; Bataineh, Alfalah, Falah and Idris, 2017; Yu, Wang and Youhuang, 2018). Bighami, Soltani, Panah and Abdi (2013) emphasized job satisfaction partially mediates the relation of psychological intelligence and OCB. Sendjaya, Pekerti, Cooper and Zhu (2019) suggested job satisfaction as a mediator in predicting the good behavior of employees.

Theoretical Model is presented in Figure 1.





frequently discretionary behavior at workplace. Employees who have higher degree of education are more engrossed in citizenship behavior. The good soldier behaviors are coupled with the self-efficacy, management position, locus of control and tenure in the organization. Employees of Public organization have more extra-role behavior in the workplace than those of in the private (Pavalache, 2014). Mohammad, Quoquab, and Alias (2011) indicates that employees, who believe that their organizations are taking into consideration their career growth, respect etc. and are happy about pay, rewards etc., demonstrate more positive behavior, which will be advantageous to the organization. When employees have positive and satisfied feeling about their organisation, employees are more obliged towards the organization rather than specific individual. Prasetio, Yuniarsih and Ahman (2017) commented that happy employees have more commitment. Such employees show extra role behavior towards the organization like helping voluntarily the co-workers, positively representing the organization, actively seeking the solutions for problems, and carrying out extra work without getting paid etc. Na-Nan, Kanthong, Joungrakul and Smith (2020) indicated that companies need to build positive work attitude JS among the employees as good sense of duty, which will help to manifest OCB among the employees. The other research scholars found similar results such as Bateman and Organ (1983); Chhabra and Mohanty (2014); Jeremy and Flotman (2016); Mehboob and Bhutto (2012); Mohamed (2016); Pitaloka and Sofia (2014); Ramadhan, Saudi and Yenni, (2018); Saepung, Sukirno and Siengtha (2011) that existence of significant positive relation between job satisfaction and OCB.

*H<sub>2</sub>: Employee's OCB depends on JS.*

#### ***Relationship between the Emotional Intelligence (EI) and Organizational Citizenship Behavior (OCB)***

Employees' emotional intelligence may also predict employees' organizational citizenship behavior. Chin, Anantharaman and Tong (2011) indicated that high emotionally intelligent middle managers would be more wilful for welfare activities towards co-workers. Executives, who use their feelings in problem solving, help them in being Altruistic. The executives, who can convey their emotions, would be unhappy towards policy adherence. Emotionally intelligent executives are courteous and involved in political affairs of organization. All the dimensions of emotional intelligence are positively related with sportsmanship except executives, who actively participate in happenings of organization. Riaz, Naeem, Khanzada and Butt (2018) argued that employees, who understand and manage self and other emotions, will perform better in the job, practice more in social networking and social activities at work arena, probably intent to quit and easily attract the colleagues. In a hotel context, Hanzacc and Mirvaisi (2013) confirmed that psychological capital is more important in enhancing voluntary behavior. In precise, control and use of emotion have greater influence than self-emotion awareness on OCB. EI has significant impact on the EP (Employee Performance). Somaychadabifirozjaee, Abbaspour and Azizishomami (2014) suggested



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2. Self-regulation of emotions (Regulation of Emotion [ROE]): Capability of people to handle their own feelings and recover from psychological distress.
3. Empathy (Other's Emotional Appraisal [OEA]): Ability to understand other's feelings and perspective.
4. Use of Emotion (UOE): Competency of people to use emotions for personal and other's development. Emotions can be used for handling conflict, to persuade and to lead.

Organizational performance can be improved by investing in employees EI and psychological capital (Gong, Chen and Wang, 2019). EI attribute of organizational leader (CEO) is essential to empower the employees and conceive creative culture in the workplace (Udod, Hammond-Collins and Jenkins, 2020).

## FRAMING HYPOTHESES

### INTERRELATION AMONG EI, JS AND OCB

#### *Relationship between EI and JS*

Afolabi, Awosola and Omole (2010) indicated that employee's EI and gender are jointly influencing the satisfaction for the profession, which requires high social interaction such as policing. Cekmecelioglu, Gonsel, and Ulutas (2012) claimed that employees, who have emotional recognition i.e., skill to identify their own emotions, are expected to have better levels of intrinsic job satisfaction like pleasure by doing work, developing a skill etc. While extrinsic satisfaction such as promotions, rewards etc are not influenced by EI. Extremera, Mérida-López, Sánchez-Álvarez and Quintana-Orts (2018) emphasized that use of EI interventions to increase employee's positive mood is specifically useful in enhancing the job satisfaction. Wolfe and Kim (2013) claimed that intrapersonal emotional intelligence, stress management and positive outlook play crucial role in work satisfaction of managerial position employees. Joshi, Kaur and Jain (2016) concluded that emotional intelligence of subordinate strengthens the relationship between supervisor's leadership ability and subordinates job satisfaction. Soto-Rubio, Giménez-Espert and Prado-Gascó (2020) pointed that during crisis and complex situation emotional intelligence predicts the satisfaction, burnout, and health. Violation of psychological contract can limit the employee satisfaction, but the effect could be mitigated by the employee's personal resource such as emotional self-control (De Clercq, Haq and Azeem, 2020).

Based on the extensive research about the interrelationship of Emotional Intelligence and Job satisfaction, the following hypothesis is put forth.

*H<sub>1</sub>: EI of employee will affect job satisfaction.*

#### *Relationship between JS and OCB*

Several literatures supported that employee satisfaction have positive influence on OCB. It is claimed that employees, who are more satisfied with their work, show



Habeeb (2019b) has developed an instrument to assess the OCB in Hindi – English environment specifically for BFSI companies.

### JOB SATISFACTION

Job satisfaction indicate an individual's primary affective reactions towards various facets of job and work experiences (Igbaria and Guimaraes, 1993). Job satisfaction is an employee's own feeling about his/her job. It can be influenced by many factors. In understanding various organizational outcomes, job satisfaction is heavily acclaimed variable of various attitudinal factors of an organizational behavior (Krishnan, Omar, and Ismail, 2010).

Kreitner and Kinicki (1998) have referred job satisfaction as an employee's attitude towards various roles of job. Herzberg, Mausner and Snyderman (1959) have assumed that working environment as key determinant that affects employees' job satisfaction. There are several instruments available for measurement of job satisfaction. The instrument, which is commonly used for measurement of satisfaction is Job Descriptive Index (JDI) built by Smith, Kendall, and Hulin (1969). The facets utilized in JDI are job characteristics, pay policy, promotion policy, co-workers, and supervision.

**Job Characteristics:** The extent to which individuals find the job to be interesting, challenging and which also provides autonomy, responsibility, and opportunity of development.

**Pay:** The degree to which employees feel that financial and other benefits he/she gets is equitable and fair as compared to others.

**Promotion Opportunities:** The chances for career development and perceived job security in the organization.

**Co-workers:** The degree to which colleagues are supportive and have mutual respect and trust among them.

**Supervision:** The competency of the supervisor to provide assistance, feedback, help and encouragement.

### EMOTIONAL INTELLIGENCE

Nowadays, Emotional Intelligence (EI) has been a widespread focus in the academic and research field. Many researchers have argued that EI as a strong predictor of job performance (O'Boyle, Kendall and Hulin, 2011; Pekaar, van der Linden, Bakker, and Born, 2017) and leadership ability of employee (Rosete and Ciarrochi, 2005; Singh, 2007). Goleman (1995, 1998); Salovey and Mayer (1990), defined EI as "an ability to recognize one's emotions and regulate them accordingly". As per Mayer and Salovey (1997) EI involves four specific skills, which are self-emotion appraisal, self-regulation of emotions, empathy and use of emotions.

1. Self-emotion Appraisal (SEA): An individual's ability to understand his/her own feelings.





EMOTIONAL INTELLIGENCE AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR:  
THE MEDIATING ROLE OF JOB SATISFACTION

Nowadays, market environment is complex and knowledge intense; organizations are expecting that employees should go beyond the formal role and responsibility. It is a well-known fact that Organizational Citizenship is extremely beneficial to organizations to improve their performance and have competitive advantage over the competitors. This is very important for any business, which wants to create competency, organizational effectiveness, and sustainability of business. There have been sufficient research studies showing relationship between OCB and employee satisfaction except in Indian IT sector. IT sector is less explored in the OCB research. Indian IT sector has a distinctive position in Indian Economy and researchers want to study IT workforce's extra role behavior while working in most disruptive technological evolution. Researchers wish to study the role of IT employees' workforce in organizational citizenship behavior. Hence researchers decided to explore more in Indian IT Industry. Consequently, current research wants to explore whether the emotional intelligence trait will lead or not to positive behavior of employees especially citizenship behavior. The aim of current study is to explore the relationship between EI-OCB and mediating role of job satisfaction.

#### ORGANIZATIONAL CITIZENSHIP BEHAVIOR

Organ (1988) and Graham (1986) highlighted that OCB comprises of five components: altruism, conscientiousness, courtesy, sportsmanship, and civic virtue.

Altruism is defined as an intention to help or assist voluntarily the colleagues or another individual, with no expectation of reward in compensation. It can be helping others in work related task, for example: assisting a colleague, who has heavy workload.

Conscientiousness is defined as goes beyond the minimum expectations of organization, such as, being regular at office, extra-long workday, not availing extra breaks, obeying rules and regulations etc. Conscientious employee is more responsible, and he requires less supervision (Podsakoff and MacKenzie, 1997).

Courtesy is defined as behavior, which is discretionary in nature that helps to thwart the work-related problems and facilitates productive work environment. It is a trait of an individual, who engages in avoiding interpersonal conflicts and problems in the organization. (Organ, 1997; Podsakoff and MacKenzie, 1997).

Sportsmanship is defined as an action that tolerates temporary inconvenience and impositions without complaining. It can be considered as willingness of the employees' tolerance towards organization without grievances and bearing the obvious irritations. (Organ, 1990; Organ and Ryan, 1995).

Civic virtue is defined as willingness of the employees to participate in organizational political life such as attending meetings, discussing work issues during personal time, actively engaging in policy and governance (Organ and Ryan, 1995). These employees really have concern about the positive image and status of the organization (Redman and Snape, 2005).





## MEASURES

### EMOTIONAL INTELLIGENCE (EI)

To measure emotional intelligence, 16 items Wong and Law Emotional Intelligence Scale (WLEIS) were used. This scale comprises of four dimensions: (a) Self Emotional Appraisal; (b) Empathy, i.e., Other's Emotion Appraisal; (c) Regulation of Emotion; and (d) Use of Emotion. Instrument reliability for the sample study is 0.873 for the construct emotional intelligence.

### JOB SATISFACTION (JS)

Smith, Kendall and Hulin (1969) have developed Job Descriptive Index (JDI) to measure construct Job Satisfaction. Job Descriptive Index consists of five major facets: Work Characteristics, Pay, Promotion Policy, Co-workers, and Supervision. The Cronbach's Alpha for Job Satisfaction for the present study was 0.744.

### ORGANIZATIONAL CITIZENSHIP BEHAVIOR (OCB)

The most popular scale developed by Podsakoff and Mackenzie (1989) to measure OCB was used. The items in this scale were based on the five-dimensional definition of Organ (1988) which were classified as: Conscientiousness; Courtesy; Altruism; Civic Virtue; and Sportsmanship. The reliability coefficient for the present study for OCB was found to be 0.873.

All the items of the constructs are measured on 5-point Likert scale (Strongly Disagree to Strongly Agree).

In this study, data analysis was done using SPSS16.0 and AMOS 23.0. The statistical analysis of the study included the following: (i) Descriptive Statistics and Correlation analysis; (ii) Reliability analysis and CFA were used to check reliability and validity of the questionnaire; and (iii) Bootstrapping was used to verify the interdependency of EI, job satisfaction, and OCB.

### CONSTRUCT VALIDITY

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test and Barlett's test of sphericity (Field, 2009) was performed to check the appropriateness. The KMO measure for the referred three constructs is presented in Table 1.

Construct	KMO Measure	Sig.
Emotional Intelligence (EI)	0.815	0.000
Job Satisfaction (JS)	0.697	0.000
Organizational Citizenship Behavior (OCB)	0.786	0.000



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Table 2: Factor / Cross loadings, CR (Composite Reliability) and AVE (Average Variance Extracted) Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Construct	Dimension	Item	Loadings	CR	AVE
Organizational Citizenship Behavior	Altruism	OCBA1	0.91	0.924	0.670
		OCBA2	0.712		
		OCBA3	0.887		
		OCBA4	0.75		
		OCBA5	0.858		
		OCBA6	0.776		
	Civic Virtue	OCBCV1	0.596	0.793	0.567
		OCBCV2	0.861		
		OCBCV3	0.778		
	Courtesy	OCBC1	0.83	0.874	0.636
		OCBC2	0.676		
		OCBC3	0.869		
		OCBC4	0.803		
	Conscientiousness	OCBCO1	0.796	0.891	0.732
		OCBCO2	0.892		
		OCBCO3	0.876		
	Sportsmanship	OCBSP1	0.839	0.797	0.570
		OCBSP1	0.79		
OCBSP2		0.619			
Emotional Intelligence	Self-Appraisal (SA)	EISA1	0.891	0.932	0.776
		EISA2	0.868		
		EISA3	0.91		
		EISA4	0.854		
	Other Emotion Appraisal (OE)	EIOE1	0.866	0.926	0.759
		EIOE2	0.891		
		EIOE3	0.869		
		EIOE4	0.86		
	Use of Emotion (UE)	EIUE1	0.723	0.81	0.517
		EIUE2	0.739		
		EIUE3	0.692		
		EIUE4	0.723		
	Regulation of Emotion (RE)	EIRE1	0.769	0.853	0.595



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Table 2 (Cont.)

Construct	Dimension	Item	Loadings	CR	AVE	
Job Satisfaction		EIRE2	0.824			
		EIRE3	0.834			
		EIRE4	0.644			
	Job Characteristics		JSJC1	0.701	0.776	0.539
			JSJC2	0.826		
			JSJC3	0.665		
	Pay		JSP1	0.734	0.852	0.592
			JSP2	0.814		
			JSP3	0.721		
			JSP4	0.803		
	Promotion Policy		JSP1	0.852	0.882	0.652
			JSP2	0.815		
			JSP3	0.726		
			JSP4	0.831		
	Co-workers		JSCO1	0.783	0.879	0.709
			JSCO2	0.9		
			JSCO3	0.839		
	Supervision		JSS1	0.613	0.841	0.644
JSS2			0.894			
JSS3			0.870			

The KMO values of all three constructs were more than 0.50 and significant at the 1% level of significance proceed further for construct validity test and discriminant validity by using confirmatory factor analysis on the data.

A Confirmatory Factor Analysis (CFA) was done to verify the Convergent Validity (CV) of the items measuring each variable. To extract the factors, Principal Component Analysis (PCA) was used for factor analysis and the rotation method was based on varimax. The factors, which had a factor loading more than 0.5 were selected, as it would be better for further statistical analysis. In accordance with Chin (2010), the threshold limit for AVEs and the CRs are at 0.5 and 0.7, respectively. From the above Table 2, the lowest CR is 0.77 for job characteristics and AVE = 0.517 for use of emotion. Therefore, value of CR is above the limit, it indicates the convergent validity (Chin, 2010).

Fornell-Larcker criterion (Hair, Hult, Ringle and Sarstedt, 2013) was used to check the Discriminant validity. Table 3 gives the view of discriminant validity. Diagonal elements of the above table are the square root of AVEs and off diagonals are representing inter construct correlations. As AVEs square root were larger than the



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**Table 3: Correlation and Discriminant Validity**

Construct	A Altruism	Civic Virtue	Courtesy	Conscientiousness	Sportsmanship	EISA	EIOE	EIUE	EIRE	JSJC	JSP	JSPJ	JSCO	JSS
Altruism	0.818													
Civic Virtue	0.258**	0.753												
Courtesy	0.460**	0.193**	0.798											
Conscientiousness	0.363**	0.168**	0.215**	0.856										
Sportsmanship	0.221**	0.240**	0.236**	0.368**	0.755									
EISA	0.729**	0.269**	0.310**	0.364**	0.205**	0.881								
EIOE	0.310**	0.534**	0.340**	0.218**	0.273**	0.367**	0.872							
EIUE	0.331**	0.359**	0.277**	0.196**	0.134*	0.476**	0.309**	0.719						
EIRE	0.230**	0.246**	0.193**	0.153**	0.181**	0.386**	0.463**	0.274**	0.771					
JSJC	0.533**	0.298**	0.226**	0.370**	0.359**	0.494**	0.325**	0.313**	0.238**	0.734				
JSP	0.315**	0.289**	0.477**	0.161**	0.337**	0.401**	0.250**	0.315**	0.550**	0.389**	0.769			
JSPJ	0.235**	0.222**	0.194**	0.247**	0.269**	0.281**	0.283**	0.247**	0.128*	0.367**	0.143**	0.807		
JSCO	0.299**	0.484**	0.366**	0.176**	0.252**	0.252**	0.158**	0.321**	0.120*	0.312**	0.198**	0.130*	0.842	
JSS	0.173**	0.337**	0.388**	0.155**	0.404**	0.377**	0.359**	0.409**	0.422**	0.477**	0.298**	0.229*	0.289**	0.802

correlations (Chin, 2010), suggesting that the model fulfils discriminant validity criteria.

**CORRELATION ANALYSIS**

Table 4 illustrates the bivariate correlation among all three constructs: OCB, EI, and JS. According to the Table 4, the correlation coefficient (r) between OCB and emotional intelligence (EI) is  $r = 0.580$ ;  $p < 0.01$ , it indicates a positive relationship between OCB and EI. It shows that emotionally intelligent employee would show more discretionary behavior at workplace. Also note that the correlation coefficient (r) between OCB and job satisfaction is  $r = 0.486$ ;  $p < 0.01$ , it shows a positive correlation. It can, therefore, be suggested that when employees are happy and satisfied, they will be more helpful to team members and involved in the volunteer work. The inter-relationship has been measured between





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**Table 4: Correlation Table**

		OCB	EI	JS
OCB	Pearson Correlation	1	0.580**	0.486**
	Sig. (2-tailed)		0.000	0.000
	N	335	335	335
EI	Pearson Correlation	0.580**	1	0.337**
	Sig. (2-tailed)	0.000		0.000
	N	335	335	335
JS	Pearson Correlation	0.486**	0.337**	1
	Sig. (2-tailed)	0.000	0.000	
	N	335	335	335

Note: \*\*Correlation is significant at the 0.01 level (2-tailed).

emotional intelligence and job satisfaction. The correlation coefficient ( $r$ ) between emotional intelligence and job satisfaction is  $r = 0.337$ ;  $p < 0.01$ , it displays a moderate positive relationship between two independent variables. Thus, it indicates that the more an employee exhibits emotional intelligence characteristic, the more will have the job satisfaction and vice versa.

**Table 5: Model Fit Indices**

Model Fit Index	Threshold Value	Test Result	Result
	< chi-square	1815	Fit
Probability	Less than 0.05	0.000	Fit
CMIN / DF	Less than 5.0	1.188	Fit
Goodness of Fit (GFI)	Greater than 0.9	0.985	Fit
Adjusted Goodness of Fit Index (AGFI)	Greater than 0.9	0.967	Fit
Tucker Lewis Index (TLI)	Greater than 0.95	0.99	Fit
Comparative Fit Index (CFI)	Greater than 0.95	0.997	Fit
Root Mean Square Error Approximation (RMSEA)	Less than 0.05	0.025	Fit

**MODEL FIT INDICES**

Several model fit indices were measured to test the structural validity of measurement model such as Chi-square, Goodness of Fit, adjusted goodness of fit, Tucker Lewis index, comparative fit index and root mean square error approximation. The results of model fit indices are depicted in the following Table 5. The fit indices for model show the values within the range of threshold figures including.

$X^2/DF = 1.328$ ,  $GFI = 0.985$ ,  $AGFI = 0.967$ ,  $TLI = 0.99$ ,  $CFI = 0.997$ , and  $RMSEA = 0.025$ .

Figure 2: Standardized Regression Weights in the Model

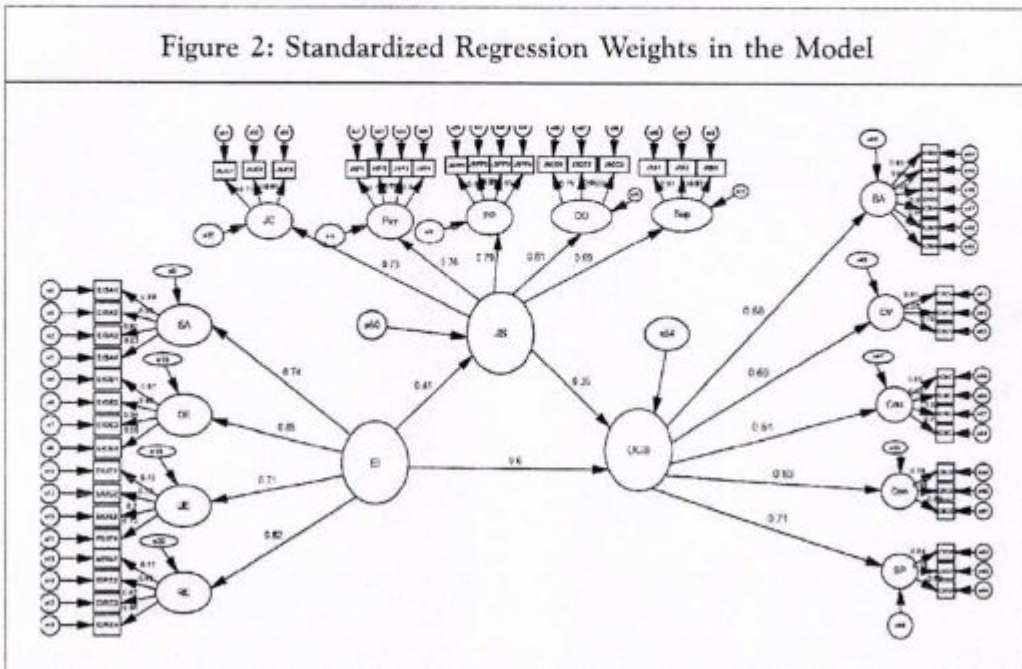


Table 6: Results of Bootstrapping for Direct Effect of JS on EI-OCB Relationship

Paths	Standardized Coefficient	SE	Z	Confidence Interval (Lower Bound-Upper bound)	p
EI-JS	0.407	0.064 (0.07)	6.08 (5.81)	0.16-0.51	**
JS-OCB	0.359	0.066 (0.09)	5.76 (3.98)	0.15-0.51	**
EI-OCB (Direct)	0.596	0.083 (0.07)	8.66 (8.51)	0.46-0.79	**

Table 7: Result of Indirect Effect of EI -JS-OCB

Paths	Standardized Coefficient	SE	Confidence Interval (Lower Bound-Upper bound)	p
EI-JS-OCB (Indirect)	0.146	(0.04)	0.11-0.37	**

The final model of the study is shown in the Figure 2. The results of standardised coefficient  $\beta = 0.407$  and  $p < 0.01$  indicated that EI positively and significantly affects employees' job satisfaction. It indicates that, hypothesis 1 is empirically supported. Additionally,  $\beta = 0.359$  and  $p < 0.01$ , revealed that employees' job satisfaction positively



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and significantly affects OCB (Refer Table 6). It indicates that, hypothesis 2 is empirically supported. Table 6 revealed that standard coefficient EI on OCB is 0.596 which has direct effect.

Further the indirect effect of EI on OCB was assessed. The mediation effect of job satisfaction was evaluated in Amos Structural Equation Model (SEM) using the bootstrapping procedure with maximum likelihood estimation. The findings (Table 7) indicate that employee job satisfaction serves mediating role between EI and OCB (indirect effect = 0.146,  $p < 0.05$ ; CI = 0.95 = 0.11, 0.37). It indicates that, hypothesis 4 is supported. As both direct and indirect effect from EI to OCB are significant, it indicates that partial mediation exists. Total effect from EI to OCB is 0.742 (Hayes, 2009)

## DISCUSSION

The study intended to know volunteer behavior of employees at the workplace with a role of positive attitude of employees based on emotional assets. This is empirically tested for the IT employees. The conceptual model designed based on the previous literature was validated. The present study provides evidence of the first hypothesis that there is significant relationship exists between EI and work satisfaction; it supports that EI can boost the work satisfaction of the employees. The findings of the research were consistent with the previous empirical studies (Cekmecelioglu, Gonsel and Ulutas, 2012; Sener, Demirel and Sarlak, 2009; Shukla, Adhikari and Ray, 2016). This research claims that emotional capital of employees would certainly have effect on their perception about workplace.

The findings reveal that emotional intelligence has a positive effect on OCB behavior of IT employees. It indicates that psychological capital will reveal the extra role behavior, which is OCB. The findings of the study validate prior studies that show link between EI and OCB (Antony, 2013; Chehrazi, Shakib and Azad, 2014; Chin, Anantharaman and Tong, 2011; and Gan and Yusof, 2018). It shows that employees, who can understand and manage their emotions, depict the discretionary behavior in the organisation.

Result provides empirical evidence in support of third hypothesis about the existence of significant positive effect of the employee satisfaction on OCB. This indicates that satisfied employees would be more engaged in volunteer behavior. It means that employees with higher satisfaction are likely to exhibit OCB. Similar findings were observed in prior studies (Fitrio, Apriansyah, Utami and Yaspita, 2019; Murphy, ., Athanasou and King, 2002; Schappe, 1998).

In the present research, the mediating effect of satisfaction is examined by employing bootstrap method. This research expounded indirect effect of emotional intelligence on OCB through the mediating role of job satisfaction. Further, it reveals that employee





satisfaction partially mediate the relationship of EI and OCB, which is in support of the earlier research of Bighami, Soltani, Panah and Abdi (2013).

### THEORETICAL IMPLICATIONS

The present research encounters the role of job satisfaction as a mediator in EI-OCB relationship. This study demonstrates that organization should enhance OCB of employees by influencing their job satisfaction. Quality of work, job satisfaction and helping behavior of employees can be boosted up by emotional capabilities.

The current study enriched literature of OB and psychology significantly. The study proposed the model of EI-OCB relationship in Indian IT sector context. Most of the studies focused on the either relationship of either EI-OCB or JS-OCB, here the researcher tried to develop interdependency among all three constructs. Likewise, researcher has developed the model of EI-JS-OCB and validated with the statistical analysis. While developing model, researcher validated and used various western scales (measures) in Indian context. The study is consistent with previous research (Chehrazi, Shakib and Azad, 2014; Gan and Yusof, 2018) and confirmed the relationship of emotional intelligence with the OCB. The emotional intelligence is positively affecting citizenship behavior.

According to the results, personality trait EI is significant predictor of satisfaction of employees and their organizational citizenship behavior in Indian IT sector (Chehrazi, Shakib and Azad, 2014; Sener, Demirel and Sarlak, 2009; and Shukla, Adhikari and Ray, 2016). Satisfaction of employees partially mediates the relationship of EI and OCB.

### PRACTICAL IMPLICATIONS

The present study verified the impact of emotional intelligence on OCB through job satisfaction. It is recommended that the organizations should employ emotionally intelligent employees and increase employees' satisfaction with their jobs and thus increase their organizational citizenship behavior. Such emotionally intelligent and satisfied employees are likely to increase their OCB, which in turn positively affects the individual performance and organizational performance.

The significant interdependency of emotional intelligence, job satisfaction and organizational citizenship behavior provide evidence for association between psychological constructs and employee behavior. Significance of EI indicates that psychological tests to be integrated as a part of recruitment and selection procedures for onboarding emotionally intelligent employees. Recruitment of emotionally intelligent employees would help organizations to reduce absenteeism, stress, and turnover (Carmeli, 2003). Organizations could develop emotional intelligence among the employees by offering behavioral training.



## LIMITATION AND FURTHER RESEARCH

The purpose of the present research was to investigate the mediating effect of job satisfaction in the relation between emotional intelligence and OCB. There are some constraints in this research. A limitation is inclusion of only one attitudinal construct as a mediator. It is suggested that further research would be carried out by taking more than one altitudinal construct like commitment, well-being, perceived support or trust etc. Moreover, this research is cross-sectional design; future research would be carried out in longitudinal form, as job satisfaction of employees may vary over time. Besides, researcher has collected the data from IT sector and from a single country, India. Hence generalizability of results might be the problem. The self-reported data was collected for this study via a single source. Further research can be carried out by taking multiple responses.

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## A BUSINESS RESEARCH: SIGNIFICANCE OF STATISTICAL POWER, LEVEL OF SIGNIFICANCE IN HYPOTHESIS TESTING

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### ABSTRACT

*The purpose of writing this research paper is to describe how well management research use the statistical power with regard to studies specifically in testing of hypothesis. Interpreting statistical inferences mandates that researchers specify acceptable levels of statistical error. The most common approach is to specify the level of Type I error, generally represented as  $\alpha$ . Formally defined, a Type I error is the probability of rejecting the null hypothesis when it is actually true. On average, the attention paid by researchers to the two types of statistical inference errors (Type I and Type II) is by far not equal. The belief is that the consequences of a false positive (Type I error) claim are more serious than those of a false negative (Type II error) claim. As a result, Type I errors are usually focused on more frequently and guarded against more stringently by researchers.*

**Keywords:** hypothesis testing; null hypothesis; statistical power; power analysis

### Introduction

Statistical Power surveys have been performed in areas such as management (e.g., Ferguson & Ketchen, 1999; management information systems (e.g., Baroudi & Orlikowski, 1989), education (e.g., Brewer, 1972), Cohen's (1962).

In general, the common finding is that deficient statistical power spread research in these diverse areas of study. Such findings could be observed to the fact that power issues and power analyses tend to receive inadequate attention by researchers. Cohen (1992) addressed this issue by stating, "It is not at all clear why researchers continue to ignore power analysis. Equal frustrations were noted by Sedlmeier and Gigerenzer (1989), who suggested that concerns about power in research are almost nonexistent. Nickerson (2000) suggested that such inattention might be attributable to statistical power not frequently being understood and, as a result, not often employed in research. Additional evidence was offered by Mone et al. (1996), who noted that the impact of power assessment surveys has been minimal and that calls for greater statistical power levels and usage have gone unheeded. In their study, Mone et al. surveyed the authors of a sample of studies contained in top-tier journals and found that almost two thirds of the respondents never used power analysis. Furthermore, the respondents

stated that there is little call for greater usage of power analysis by journal editors or reviewers. Echoing these aforementioned concerns, authors of power assessment articles argue that insufficient statistical power may leave researchers unable to detect or reject false null hypotheses. In other words, researchers may actually fail to notice meaningful differences or effects as a result of low power. Cohen (1977) noted that such an occurrence is highly unfavorable to behavioral scientists because it is then reasonable to suggest that there is not an equitable chance of rejecting the null hypothesis, and, in general, behavioral scientists "typically hope to 'reject' [the null] hypothesis and thus 'prove' that the phenomena in question is in fact present". Cohen and other authors of statistical power assessments basically conclude that a failure to reject a null hypothesis leaves readers wondering whether it is due to insufficient statistical power or truly due to the absence of the phenomenon.

Additional concerns about designing studies with low power are noted by Howard, Maxwell, and Fleming (2000) who suggested that such actions "tend to lead to a body of literature in which results appear to contradict one another" Researchers usually wish to demonstrate that the phenomenon in question is present (i.e., reject the null hypothesis in favor of the alternative hypothesis). However, there are instances in which researchers do



have a priori, theoretically justified reasons to hypothesize formal, statistical null relationships (Cohen, 1990; Cortina & Dunlap, 1997; Cortina & Folger, 1998; Greenwald, 1975, 1993). Support for positing and testing null relationships between variables of interest is offered by Greenwald (1993), who noted that "scientific advance is often most powerfully achieved by rejecting theories. A major strategy for doing this is to demonstrate that relationships predicted by a theory are not obtained, and this would often require acceptance of a null hypothesis". It was believed that theoretically based arguments that lead researchers to forecast null relationships between their research variables of interest are justified.

If power levels are not sufficiently high, then attainment conclusions of "no effect" may not be realistic and potentially lead to conflicting and/or invalid findings in the literature. Only if power levels are high can one come close to inferring that the null hypothesis is true when there is a failure of a test to establish statistical significance (Nickerson, 2000). Thus, power is particularly important for those testing null hypotheses because lack of power may in fact lead researchers to incorrectly affirm null hypotheses.

#### Statistical Power, Level of Significance and the Null Hypothesis

There are three main components that determine the level of statistical power of an inference test: the significance level ( $\alpha$ ), the sample size, and the effect size. The relationship between power and its three determinants is such that if one of the four elements (i.e., power, significance level, sample size, or effect size) is unknown, it can be calculated using the known values of the other three elements. Hence, researchers are often able to a priori determine statistical power levels of their tests. Researchers investigating a phenomenon typically hypothesize that a relationship between the investigated variables exists. Classical statistical inference tests posit a null hypothesis ( $H_0$ : the phenomenon under investigation is absent, or there is no—or at best a trivial—difference between the parameters being tested), which researchers contrast against the

alternative hypothesis ( $H_a$ : the phenomenon is present, or there is a difference in the parameters being tested). Because researchers typically hope to reject the null hypothesis, they normally report the probabilities associated with the likelihood that such a conclusion is erroneous (i.e.,  $\alpha$ ). However, when such tests are not significant or when one expects the null hypothesis to be upheld, it is critical to discuss the likelihood of rejecting the null hypothesis in favor of the alternative hypothesis if the alternative hypothesis is in fact true. Such a probability is better known as statistical power. Frequently, power is represented as  $1 - \beta$ , where  $\beta$  is the probability of failing to reject the null hypothesis when it is actually false. Such an error is commonly referred to as a Type II error.

#### Significance Level

Interpreting statistical inferences mandates that researchers state acceptable levels of statistical error. The most common approach is to specify the level of Type I error, generally represented as  $\alpha$ . Formally defined, a Type I error is the probability of rejecting the null hypothesis when it is actually true. On average, the attention paid by researchers to the two types of statistical inference errors (Type I and Type II) is by far not equal. The belief is that the consequences of a false positive (Type I error) claim are more serious than those of a false negative (Type II error) claim. As a result, Type I errors are usually focused on more frequently and guarded against more stringently by researchers (Baroudi & Orlikowski, 1989; Brewer, 1972; Chase & Chase, 1976; Cohen, 1977; Cowles & Davis, 1982; Greenwald, 1993; ) It was suggested that researchers set their level of  $\beta$  to correspond to the traditional level of  $\alpha$  when testing a non-null (i.e., alternative) hypothesis, which typically is set at the .05 level. Thus, when null hypotheses serve as the research hypotheses of interest, the researcher should opt for a  $\beta$  level of .05, which corresponds to a .95 power level; otherwise, statistical insignificance of the tests has no real significance. Because power is  $1 - \beta$ , then at a power level of .80,  $\beta = .20$ , which means that there is a .20 probability of sustaining a false null. We argue that this represents a power level too low and a



probability of Type II error too high to confidently affirm the null hypothesis. Such arguments are supported by Rossi (1990) who suggested, If power was high, then failure to reject the null can, within limits, be considered as an affirmation of the null hypothesis, because the probability of a Type II error must be low. Thus, in the same way that a statistically significant test result permits the rejection of the null hypothesis with only a small probability of error (alpha, the Type I error rate), high power permits the rejection of the alternative hypothesis with a relatively small probability of error (beta, the Type II error rate). (p. 646) We fully understand that some advocate setting  $\beta$  levels according to each situation and the overall cost of the error, but we firmly advocate a minimal power level of .95 ( $\beta = .05$ ), if possible, for researchers to have confidence in their results and to guard against building a literature of contradictory results. This is particularly important for those testing null hypotheses.

### Sample Size

As the number of observations in the sample increases, the reliability (i.e., precision) of the sample value approximating the population value also increases (Cohen, 1977). As a result of this greater reliability, a researcher has a higher probability of rejecting a false null hypothesis. Thus, as the sample size increases, so does the power of the study. Ideally, researchers should specify  $\alpha$ , effect size, and the desired level of power and then determine the sample size needed in the study so that more valid conclusions can be drawn from the results of testing null hypotheses.

### Effect Size

The effect size represents the magnitude or strength of the relationship between the variables in the population (Cohen, 1977). As previously argued, researchers can fail to reject the null hypothesis when the true relationship between two events of interest is determined to be trivial or inconsequential. In other words, affirmation of null hypotheses does not occur when the true value of a statistic equals exactly zero, but rather the relationship between variables of interest is so small as not to be usefully distinct from zero. Cohen (1977) and

Sedlmeier and Gigerenzer (1989) argued that determination of a trivial effect is made when power ( $1 - \beta$ ) is set at a high value and the sample size used is large enough so that the risk of Type II error ( $\beta$ ) is relatively small and similar to that of the risk of Type I error, which is commonly set at the .05 level.

When conducting a power analysis as part of testing the null hypothesis, it is important to determine when an effect is large enough to be considered nontrivial. Lane, Cannella, and Lubatkin (1998) notes that, conceptually, a trivial effect implies a small effect size, as defined by the conventional values set forth by Cohen (1977, 1992). Cohen (1977, 1990) demonstrated that if a researcher considers an effect size of  $r = .10$  (a small effect size for a correlation according to Cohen) as negligible and wishes to test the null hypothesis ( $\alpha = .05$ , power = .95, and  $\beta = .05$ ), then a sample size of 1,308 is required. It is obvious that the use of small effect sizes places great demands on the sample sizes of studies. From this example, it appears that it takes an impractically large sample size to fail to reject the null hypothesis; however, "the procedure makes clear what it takes to say or imply from a failure to reject the null hypothesis that there is no nontrivial effect" (Cohen, 1990, p. 1309). So, with a small value for the effect size ( $i$ ) and power set at a high value (so that  $\beta$  is relatively small), nonsignificance of results allows the researcher to properly conclude that the population effect size is no more than  $i$  (i.e., negligible), a conclusion significant at the specified level of  $\beta$ . Thus, drawing on the logic with which we reject the null hypothesis with risk equal to  $\alpha$ , Cohen (1977) stated, The null hypothesis can be accepted in preference to that which holds that the effect size equals  $i$  with risk equal to  $\beta$ . Since  $i$  is negligible, the conclusion that the population effect size is not as large as  $i$  is equivalent to concluding that there is "no" (nontrivial) effect. (p. 16) For this power assessment, we felt that drawing on general approximations of small effect sizes for the statistical tests covered by Cohen (1977, 1992) was appropriate.



## Recommendations for Testing Null Hypotheses

Recommendation 1: Researchers should report power for every standard statistical test. This allows the researcher to understand the risks associated with non significant findings.

Recommendation 2: Researchers should establish a  $\beta$  level of .05 or lower to confidently conclude that a unimportant effect exists between variables of interest (Cohen, 1977; Sedlmeier & Gigerenzer, 1989; Rossi, 1990). Thus, the risk of a Type II error will at least parallel to generally accepted levels for Type I errors.

Recommendation 3: Researchers try to include confidence intervals in their findings to provide further detail that the hypothesized null effect is not trivial due to sampling error (Cortina & Folger, 1998; Nickerson, 2000).

Recommendation 4: Add in in each experiment and analysis an additional independent variable that is recognized as having a relationship with the dependent variable (Cortina & Folger, 1998). Next, evaluate the relationship in each experiment/analysis to exemplify that the independent variable of interest has a zero or trivially nonzero relationship with the dependent variable while the additional independent variable has a significant nonzero rapport with the dependent variable.

## Conclusion

Researchers do not want to conduct an study of low statistical power" (Rossi, 1990,). Also, Researcher wanted to determine whether researchers made power considerations when concluding support for a null hypothesis based on nonsignificant findings. Because presenting statistical null hypotheses in research is generally frowned upon by a majority of scholars, any time researchers present null hypotheses, they must do their highest to demonstrate that sufficient statistical power is present to assertively affirm or disaffirm the hypothesis. In addition, it is important to note that relegating the null hypothesis to a secondary status is unwarranted (Atkinson, Furlong, & Wampold, 1982; Cortina & Folger, 1998; Frick, 1995; Greenwald, 1993). As such, we, and others, believe that it is acceptable for a null hypothesis (i.e., a hypothesis of trivial effect or difference) to be offered on its own, if theoretically justified. In other words, "there is no suggestion that a null hypothesis must be used as a comparison value" (Cortina & Folger, 1998, p. 335; Greenwald, 1993). Probability of failing to reject false null hypotheses is greater than what is advocated in the power literature as it pertains to testing formal null hypotheses. It is hoped that the recommendations offered for future management research can prove to be of assistance for others testing null hypotheses.

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## TITLE: CONSUMERS ATTITUDE TOWARDS OVER-THE-COUNTER MEDICINES DURING COVID-19 PANDEMIC IN INDIA

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### ABSTRACT

Coronavirus disease 2019 (COVID-19) is caused by Coronavirus 2 (SARS-CoV-2) has spread worldwide in the last year. Rapidly increase in COVID-19 and fear of mortality made the people more cautious and protective about their health. As there is no complete cure found in Modern Western Medicine (MWM) for the disease made people rely on all types of Over-the-counter (OTC) medicines which also include routine allopathic, traditional Ayurveda, and Homeopathic OTC medicines. So the study of purchase and use of all these types of OTC medicines for self-care and treatment by the individual becomes necessary. Here the theory of planned behavior is used to understand the behavior and attitude of participants which is well defined in psychology. This paper will focus on how different individual is buying and storing a different kind of OTC medicines for their current and future use. This study will be helping to understand the attitude of consumers towards OTC medicines.

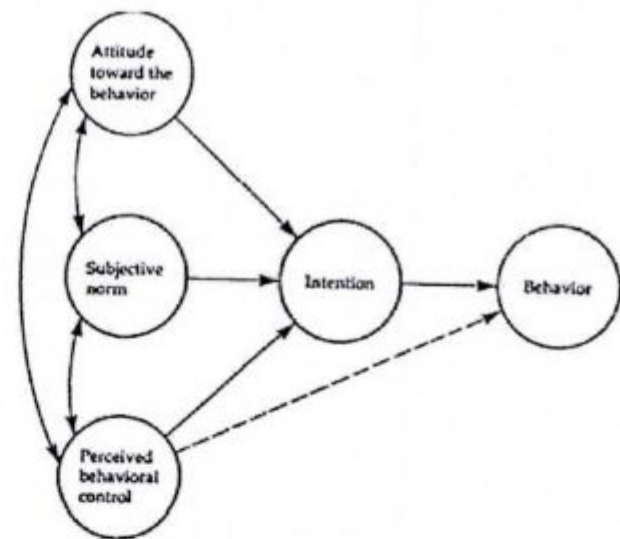
**Keywords:** Coronavirus disease 2019 (COVID-19), Coronavirus 2 (SARS-CoV-2), Modern Western Medicine (MWM), Over-the-counter (OTC), Allopath, Ayurveda, Homeopathy.

### Introduction

For the COVID-19 disease there is no medication or immunization for it as of now because it is new and the patients are being given drugs that were affirmed for treating other viral contaminations. India has likewise been utilizing hydroxychloroquine (HCQ), an antimalarial drug, for treating COVID patients. The dread of getting COVID-19 is making individuals doubly mindful about their wellbeing and shield it. While some people have relied on traditional home remedies such as kadha and other detox beverages to stay healthy, others have turned to self-medication. From Vitamin C to Vitamin D to multivitamins, there has been a significant surge in people stocking up on "immunity-boosting drugs."

OTC drug like paracetamol is also used in the treatment of COVID for very mild symptoms. (Leal et al., 2021) As a result, many customers have started stocking up on over-the-counter cold and flu pills, cough suppressants, lozenges, and pain relievers in case they start to develop COVID-19 symptoms. (Clement et al., 2021)

Figure 1: Source: (AJZEN, 1991)



The theory of planned behavior is well defined in psychology, is a linkage between belief and planned behavior. Theory, as shown in Figure:1, explains that there are three components or elements namely subjective norm, attitude, and perceived behavioral control, which together form the intention of an individual's behavior. The theory of planned behavior was introduced in the article "From intentions to actions: A theory of planned behavior" by Icek Ajzen (1985) this theory was enhanced from the theory of reasoned action, which was introduced by Martin



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Fishbein with Icek Ajzen in 1980 (Bosnjak et al., 2020)

### Review of Literature

(Tillu, Chaturvedi, Chopra, & Patwardhan, 2020)The author says that in his research paper "Public Health Approach of Ayurveda and Yoga for COVID-19 Prophylaxis," prevention is better than cure." Which is a basic principle in medicine. Individuals are overemphasized by the impulses of social distancing also, actual boundary techniques. They are probably going to discover comfort and backing in a portion of the profoundly established conventional practices that may shield them from the contamination and its related crippling conditions. (Silveira, et al., 2020)The article says that various ayurvedic medicines play a good role in respiratory tract infection diseases and which is clinically proven, study also says that medicines like *Hedera helix*, and *Sambucus nigra* *Althaea Officinalis*, *Commiphora molmol*, *Glycyrrhiza glabra*, have security edges better than those of reference drugs and enough degrees of proof to justify their potential clinical use as adjuvants in the treatment of early/mild instances of COVID-19. Ayurvedic medicines are not "magic bullet" to cure the flu and COVID-19 but can evade the infection disease yet may lighten indications and conceivably improve the general prosperity of patients. In a more extensive setting, this examination additionally offers a novel methodology for evaluating the dangers and advantages of utilizing natural medications. Since the PrOACT-URL methodology is utilized here unexpectedly with a bunch of homegrown meds, we need to feature the openings for a thorough and proof-based methodology that will have a decent evaluation of such prescriptions.

(Malik, Tahir, Jabbar, & Hussain, 2020) The author says in his research paper "Self-medication during COVID-19 pandemic: challenges and opportunities" that, Self-medication is an essential area in health care especially in COVID-19 all over the world, but it should be controlled and well managed by authorities, healthcare professionals, and practitioners.

People are stocking the OTC medicines like vitamins, self-care, and safety gear medicines in addition to their food and cleaning items while shopping from grocery stores. This study is carried out in April 2020. Before COVID-19, half of the purchasers demonstrated having OTC medicine available to be taken consistently by themselves or on the other hand somebody in their family, what's more, 29% refer to keeping it available for infrequent use. Accordingly of the pandemic, generally, 1-in-5 have loaded up on OTC medicine and the equivalent sum will keep on doing as such after the pandemic. 44% consumer says that they have purchased cold flu tablet that is a bit higher than that of the percentage in the previous year.

(Makowska, Boguszewski, & nska, 2020)According to the study conducted by the author in lockdown, people with a high lockdown index were having more fear about their health, job, and finance. So they purchase more OTC medicines and consume them without the proper knowledge of it, study also states that these types of people were observed with poor mental well-being, more religion, and having kids under 18 years.

(Weeks, 2020)In Peru, OTC medicines were used for self-medication during COVID-19 without the complete knowledge of its use and scientific evidence.

(Pawar & Gewari, 2021) Authors focus in their paper "A STUDY OF FACTORS RESPONSIBLE FOR CHOICE OF FMCG PRODUCTS (DENTAL CARE PRODUCTS)" "majorly on factors which are affecting the choice of dental care products. TV advertisements increase the knowledge about the product. Consumer follows the brand loyalty. Parents also affect the buying decision of the consumer.

### Aims of the Study

The study aimed to find out the impact of COVID-19 on the purchase behavior of the consumer and changes in the attitude of the consumer because of the COVID-19. In this pandemic situation, everyone is under the threat and pressure about their wellbeing and health. The study reviles the changes in OTC medicine purchase behavior during and after the pandemic. The theory of planned behavior



also says that attitude, perceived behavior, subjective norm, and past behavior explain future intention.

### Objectives of the Study

To analyze the consumer's knowledge about OTC medicines.

To analyze the impact of demographic factors on the attitude of the consumer's towards the use of different OTC medicines in the COVID-19 pandemic.

### Hypothesis

H1: There is an association between knowledge of the use of OTC medicine and knowledge about prevention from COVID-19 infection.

H2: There is an association usage of OTC medicine because of trustworthiness and different OTC medicines used for the treatment of COVID-19 infection.

### Methodology and Analysis

The study was carried out between Jan and April 2021. The questionnaire sends to the people from Pune city through e-mail to collect the responses. Adolescents above 18 years are eligible to inclusion in the study. 180 respondents responded by filling the questionnaire.

Online questionnaires send to gather information from the respondents. Data were collected from 5th Jan 2021 to 20th Jan 2021 period. A quota sample is used, it is balanced by geographic area, gender, and age. Questions were based on the experiences of respondents during the lockdown period, their behavior about the OTC medicines has been noted through it. Table No.1 shows the demographic spread of data.

**Table 1 represents the demographic profile of respondents.**

Gender	Age	Marital Status
Male	48%	up to 20 years
Female	52%	up to 30 years
		up to 40 years
		up to 50 years
		51 and above
		3%
		27%
		33%
		24%
		13%
		Married
		Unmarried
		72%
		28%

**Table 2. Descriptive Statistics**

	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic
I am aware about the severity of COVID-19 viral infection.	4.90	.301	-2.689	5.290
I am more concern about my health during COVID-19	4.78	.413	-1.387	-.077
I update my knowledge about, how to prevent myself from infection of COVID-19 with the help of OTC medicines.	4.52	.672	-2.402	10.218
I keep the knowledge of usage of OTC medicines.	4.47	.808	-2.592	8.865
I have used some OTC medicines for immunity boosting and for prevention from infection of COVID-19	4.38	.488	.484	-1.786
In COVID Pandemic I have purchased some OTC medicines for future use.	4.33	.473	.713	-1.508
I will use OTC medicines in future because of its trustworthiness.	4.33	.473	.713	-1.508
I am going to use allopathic medicines to cure minor ailments in this COVID-19 pandemic.	4.10	.702	-2.493	10.696
I am going to use homeopathic medicines to cure minor ailments in this COVID-19 pandemic.	3.95	.993	-1.975	3.991
I am going to use ayurvedic medicines to cure minor ailments in this COVID-19 pandemic.	4.27	.631	-1.900	10.047
Age	3.17	1.070	.160	-.793
Valid N (listwise)	180			



Table No. 2 shows that the mean for all questions, the highest mean observed is 4.90 and the lowest mean observed is 3.95. The highest deviation from the mean is observed as 0.993 and the lowest deviation is 0.301. Observations are taken on the five scales Likert scale. Standard deviation is not high so we can say that observations are not scattered and are closer to the mean.

Pearson correlation is calculated to check the strength and direction of the linear relationship between the different variables. We can find out the size of the correlation coefficient mostly lies from 0.20 to 0.70 so we can say that there is a good correlation between various variables.

**Table No. 3: Correlations**

	Age	I am aware about the severity of COVID-19 viral infection.	I am more concern about my health during COVID-19
Age	1		
I am aware about the severity of COVID-19 viral infection.	-.260**	1	
I am more concern about my health during COVID-19	-.145**	.229**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From Table. 3 we find the correlation between awareness about the COVID-19 and concern about the health during this pandemic, value for correlation coefficient for the same is calculated as 0.229\*\*. This shows that there is

a positive correlation between awareness about the COVID-19 and concern about health with consideration of age as an independent and demographic variable.

**Table No. 4: Correlations**

	Age	I update my knowledge about, how to prevent myself from infection of COVID-19 with the help of OTC medicines.	I keep the knowledge of usage of OTC medicines.
Age	1		
I update my knowledge about, how to prevent myself from infection of COVID-19 with the help of OTC medicines.	-.237**	1	
I keep the knowledge of usage of OTC medicines.	-.265**	.479**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From Table No. 4 we can find a correlation between knowledge of usage of OTC medicines and updating of knowledge about prevention from infection of COVID-19 with

the help of OTC medicines, and the value for the coefficient of correlation is 0.479\*\*, hence H1 is proved.



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Table No. 5: Correlations

	Age	I will use OTC medicines in future because of its trustworthiness.	I am going to use allopathic medicines to cure minor ailments in this COVID-19 pandemic.	I am going to use homeopathic medicines to cure minor ailments in this COVID-19 pandemic.	I am going to use ayurvedic medicines to cure minor ailments in this COVID-19 pandemic.
Age	1				
I will use OTC medicines in future because of its trustworthiness.	-.177*	1			
I am going to use allopathic medicines to cure minor ailments in this COVID-19 pandemic.	-.178*	.455**	1		
I am going to use homeopathic medicines to cure minor ailments in this COVID-19 pandemic.	.087	.143	.200**	1	
I am going to use ayurvedic medicines to cure minor ailments in this COVID-19 pandemic.	-.017	.656**	.129	.021	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

From above Table No: 5 we can say that respondents are having trust in the OTC medicines and they are willing to buy allopathic and ayurvedic medicines to cure the minor ailment in this COVID-19 pandemic. The value of Correlation coefficients calculated for the same is .455\*\* and .656\*\*. This also shows that people are having more trust in ayurvedic medicines, hence H2 is proved.

### Conclusion

Every individual cares for his or her wellbeing in this COVID-19. Individuals upgrade their knowledge about the new

disease-like symptoms, a basic medication used, and preventive measures. People also knowing OTC medicines and their usage, they also having faith in them and they are using various allopathic, ayurvedic, and homeopathic medicines to cure their basic ailments. Here study reveals that people had more trust in allopathic and ayurvedic OTC medicines for their treatment of minor COVID-19 like symptoms. People also update their knowledge of OTC and its usage in this new pandemic scenario.

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## A STUDY OF FACTORS RESPONSIBLE FOR CHOICE OF FMCG PRODUCTS (DENTAL CARE PRODUCTS)

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### ABSTRACT

*This research study aims to analyse factors that affect the consumption pattern of dental care products. The existence of various brands of the products and the close competition among them has left the consumer's choice in a dilemma. The present research has been carried out with respondents in and around Pune with an objective to explore and understand the orientation of a consumer towards a particular brand, analyse the impact of pricing in the selection of a particular brand of toothpaste, different factors that affect his perception for a particular brand, in the Indian context, with reference to the Dental Care Products.*

**Keywords:** FMCG, Dental Care Products, Toothpaste, Consumer, Brand Preference.

### Introduction

The Fast-Moving Consumer Goods (FMCG) or Consumer Packaged Goods (CPG) sector satisfies the elemental and day-to-day household needs other than grocery, ranging from packaged foodstuff, dairy products, cooking oil, bread, etc.

FMCG refers to those retail goods that are generally replaced or fully used up over a short period of days, weeks, or months, and within one year. FMCG have a short shelf life, either because of high consumer demand or because the product deteriorates rapidly.

India's FMCG sector is the fourth largest sector in the economy and creates employment for more than three million people in downstream activities. Its principal constituents are Household Care, Personal Care and Food & Beverages. The total FMCG market is more than Rs. 85,000 Crores. It is currently growing at a double-digit growth rate and is expected to maintain a high growth rate. The Rs 85,000-crore Indian FMCG industry is expected to register a healthy growth despite the economic downturn.

Despite inflationary pressures, sale of FMCG products is not adversely affected due to price hikes because demand for these products can never shrink and there is also a scope for FMCG companies to gain through product diversification and introducing new variants of the existing products. For instance, Dabur has a

wide range of varying products, Dabur Amla & Vatika hair oil, Dabur Honey, Gulabari, Glucose-D, Dabur, Sharbat-e-Azam, Chyawanprash, Hajmola, Dabur Red Toothpaste, Honitus and so on, that keeps it distinguished from others. Hindustan Unilever is among the best known for its promotional strategies for Kissan, beverages, Lipton, Bru, Brooke Bond Taj Mahal and assorted Knorr soup etc.

Such strategies are very essential for the FMCG companies to excel in performance and establish themselves in the market. Many have succeeded in doing this and many are looking forward yet to achieve a mark in this sector. The FMCG sector has been fourth largest industry in India and Indian FMCG companies have already attained an admirable position in the global market but are yet to hit the bull's eye.

### Consumer purchase decision

As buyers of goods and services, consumers purchase items that need, and in the process of doing that they make informed purchase decisions on whether to buy or not to buy. The consumer buying process or simply the consumer purchase decision consists of six distinct stages that make up the whole process.

**The consumer buying process steps includes.**

1. Problem/need recognition
2. Information search

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3. Evaluation of alternatives
4. Purchase decision
5. Purchase
6. Post purchase evaluation

### Indian Oral Care Industry

The development of toothpaste began as long ago as 300/500BC in China and India. Toothpowder or dentifrice was first available in Britain in the late eighteenth century. It came in a ceramic pot and was available either as a powder or paste. The rich applied it with brushes and the poor with their fingers. Modern toothpastes were developed in the 1800s. A dentist called Peabody was the first to add soap to toothpaste in 1824. Chalk was first added to toothpaste by John Harris in the 1850s. In 1873, toothpaste was first mass-produced into nice smelling toothpaste in a jar. In 1892, Dr. Washington Sheffield of Connecticut was the first to put toothpaste into a collapsible tube. The 1960's saw the introduction of fluoride into toothpaste. This development was followed in the 1980's with the addition of soluble calcium fluoride to fluoride toothpastes. It is therefore within the last thirty years that toothpastes contain the two ingredients - calcium and fluoride. India's toothpaste tradition is based on its strong background of Ayurvedic medicine. Special twigs were used for brushing and each twig was naturally filled with sweet nectar. The oral care market in India is valued at Rs 3,976 crore and is expected to reach Rs 4,373 crore in 2012. The market can be segmented into mouthwashes, toothpastes, toothbrushes, and tooth powders.

### Review of Literature

Consumer attitude towards marketing activities is important from both a theoretical and marginal standpoint (Gaski and Etzel, 1986). Consumers make product choices based on a combination of product attributes that would meet their needs on dimensions of values, cost and prior satisfaction (Kotler, 1997). The advent of an organized consumerism movement in the United States during 1970s led tremendous interest among researchers in studying the attitude of consumers towards business (Gaski and Etzel, 1986). As consumer perceptions significantly affect their

behavioural responses to marketing activities, consumers attitudes towards marketing have been found to be linked to several key macroeconomic variables and have been used in economic forecasts (Chopin & Darrat, 2000). Barksdale and Dardan (1972) pioneered the research to consumer attitudes towards marketing in the U.S and replicated their study for a number of years in the 1970's. They measured consumer's attitudes towards the 4 Marketing Mix variables as well as consumerism government regulation and consumer responsibility. Overall, they found that consumers had a rather negative attitude towards marketing practices (Chan & Cui, 2004).

In this regard, Snyder (1974) has referred that there are 2 types of self-motivator's i.e., high and low who show different types of behaviour to meet the requirement of a particular situation (Becherer & Richard, 1978; Snyder & Williams, 1982). Moreover, individuals with external locus of control believe their outcome is controlled by luck, fate, or more powerful others (Rotter, 1966). Consequently, their behaviour seems to vary almost randomly across situations. But individuals with an internal locus of control, however, believe that they are masters of their own destinies and are more likely to behave in accordance with their attitude (Sherman 1973).

Sanbonmatsu, Kardes, & Gibson (1991), have manipulated information processing goals and the evaluative implications of the unique attributes of two products. Tversky (1977) has identified unique attributes as those which are included in the description of one product but omitted from the description of the other product. The research conducted in this regard showed that the direction-of-comparisons effect is eliminated when consumers form attitude-based preferences.

### Research Methodology Research Problem

This research study aims to analyse factors that affect the consumption pattern of dental care products. The existence of various brands of the products and the close competition among them has left the consumer's choice in a dilemma.



**Objectives**

The present research has been carried out with respondents in and around Pune with an objective to –

1. Explore and understand the orientation of a consumer towards a particular brand.
2. Analyze the impact of pricing in the selection of a particular brand of toothpaste.
3. Different factors that affect his perception for a particular brand, in the Indian context, with reference to the Dental Care Products.

**Research Design**

**Research type**

Descriptive research as we are describing the current market situation as it exists.

**Population**

All those who are using oral care products in Pune City.

**Sample size:** 320

**Sampling method:** Convenience sampling method.

**Sources and methods of data collection**

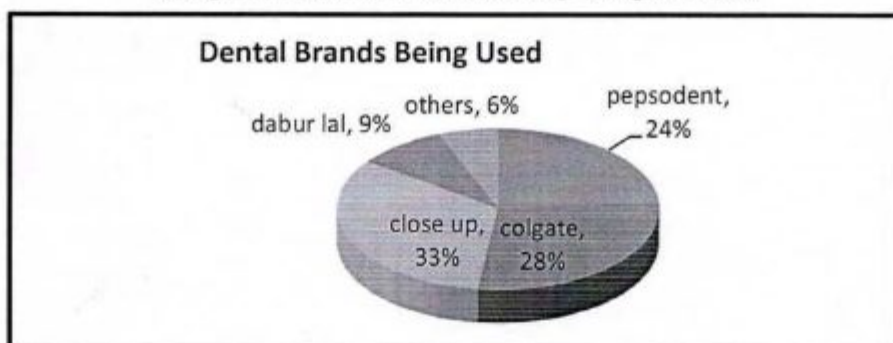
Primary and Secondary Data

**Primary Data:** The primary data collected during our study was the information collected by survey using Questionnaire.

**Secondary Data:** Internet websites like Google, Wikipedia, etc to get general information related to the study.

**Data Analysis and Interpretation**

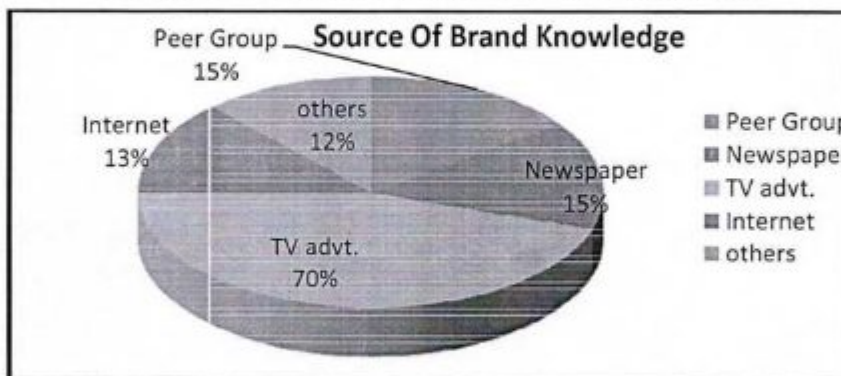
**Graph 1: Brand Preference by Respondents**



On analysing the customer orientation of a particular brand of different brands available in the market, it has been found that the most preferred brand is Close-up (33% of the total

population prefers this brand), followed by Colgate (28%), Pepsodent (24%), Dabur Lal (9%) and Others (6%).

**Graph 2: Various Sources of Brand Information**



In terms of source of knowledge of the brand, it has been found 70% of the total sample obtains information about the brands from TV

advertisements, 15% from groups of friends, 15% from newspapers, 13% from the internet and 12% from other sources. It is found that



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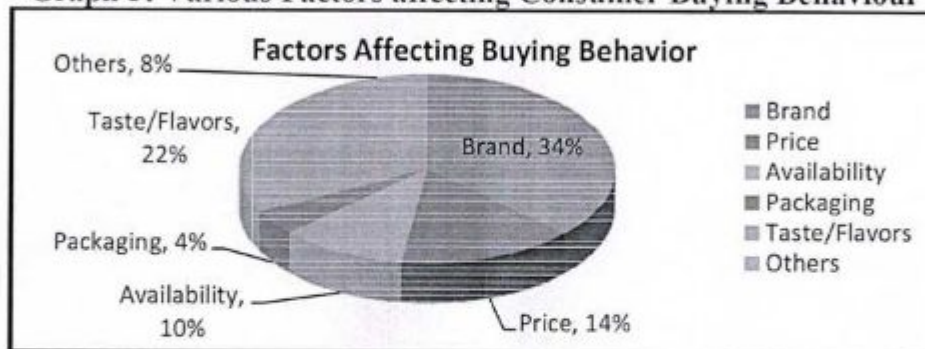
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the impact of the TV advertisements is the most, as it reaches easily to the consumers. By means of the effective advertisement about the

brand, sellers try to create maximum awareness about the product.

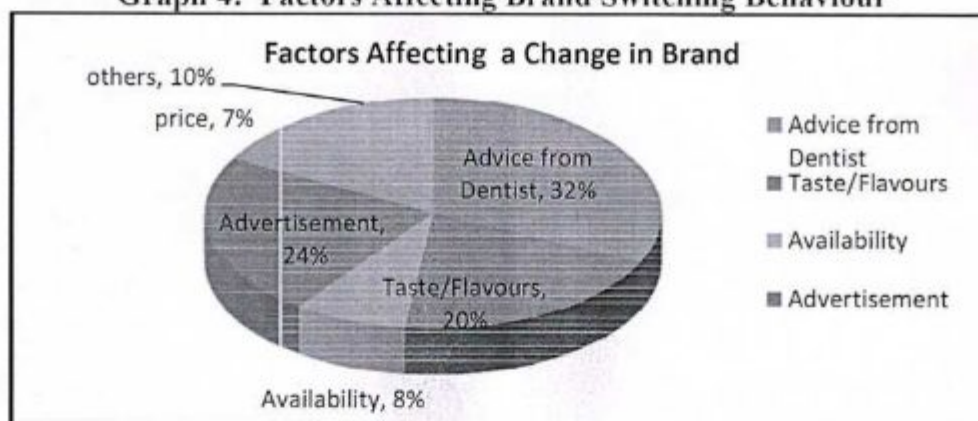
**Graph 3: Various Factors affecting Consumer Buying Behaviour**



On analysing the factors affecting the buying behaviour of dental care products we came to know that the Brand itself is a major factor influencing buying behaviour (34%) followed by taste/flavours (22%), price of the product (14%), then availability (10%), packaging

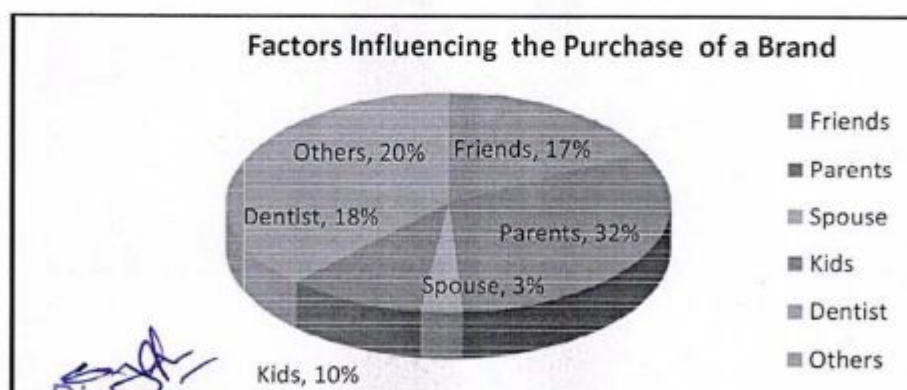
(4%), and others (8%). This clearly indicates that the Brand image and price creates a powerful impact on buying behaviour of consumers. Hence, creating and maintaining the Brand and proper pricing strategy plays a crucial role.

**Graph 4: Factors Affecting Brand Switching Behaviour**



On analysing the reason for switching to another brand, it was calculated that 32% of the sample switched due to advice by dentist, 24% due to advertisements, 20% taste/flavours, 8% due to availability, 7% due to price and 10% due to other reasons.

**Graph 5: Factors Influencing Buying of Brand.**



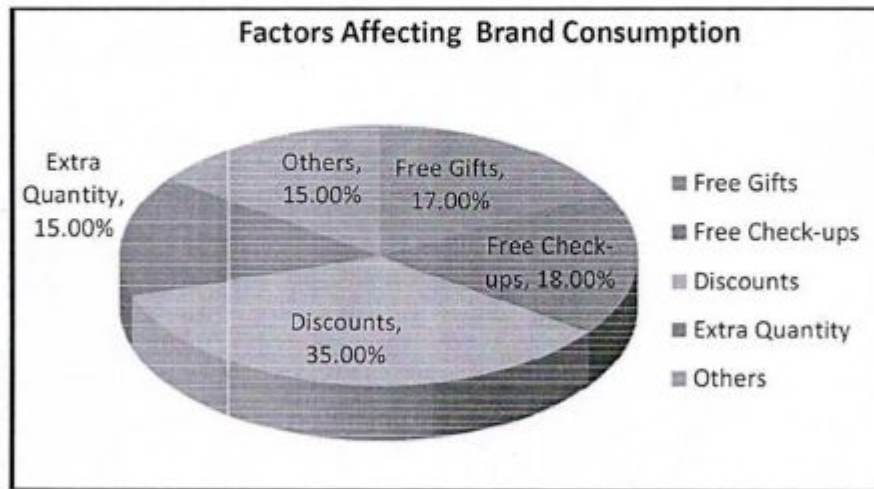
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In order to evaluate the factors responsible for purchasing a particular brand it was found that maximum respondents were influenced by

parents (32%), followed by dentists (18%), friends (17%), kids (10%), spouse (3%), and others (20%).

**Graph 6: Factors Affecting Consumption of Brand**



In terms of analysing the reason affecting brand consumption pattern, it was found that maximum people prefer a brand due to discounts (35%), free checkups (18%), followed by free gifts (17%), extra quantity (15%) and others (15%).

**Association between various attributes**

The Tables below shows the association between the use of brands and age.

Using SPSS we have formulated the values of Chi Square Test and Contingency coefficient.

**Table 1: Distribution of Respondents according to Age and Brand used**

		Age * Brand Cross tabulation					Total
		Brand					
		Colgate	Close up	Pepsodent	Dabur La	Other	
age	below 20	12	10	13	5	3	43
	21-30	40	46	35	11	8	140
	31-40	29	42	14	8	5	98
	40 above	7	9	16	4	3	39
Total		88	107	78	28	19	320

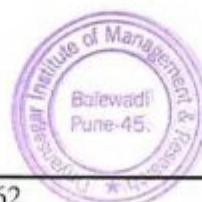
**Table 2: Results of Chi Square Test**

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.948 <sup>a</sup>	12	.152
Likelihood Ratio	17.088	12	.146
N of Valid Cases	320		

The Chi square value is 0.152 which is greater than 0.05. This shows that there is no association between age and the brand used.

Association between the purchase frequency and the brushing pattern of the consumers.

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**Table 3: Distribution of Respondents according to Purchase frequency and Brushing Frequency.**

		Brushing Frequency				Total
		once	twice	thrice	4	
Purchase frequency	monthly	105	158	1	1	265
	quarterly	25	26	0	0	51
	yearly	0	4	0	0	4
Total		130	188	1	1	320

There is a positive relation between the brushing pattern and the purchasing frequency of the consumers since  $r=0.120$ .

### Findings

Out of all the brands available in the market, it is seen that Close-up is the most preferred brand. Majority of the consumers (70%) buy a particular brand of toothpaste based on the TV advertisement. The TV advertisement is the best source of knowledge for the brand.

Brand is a major determinant that makes a consumer buy a particular product. Brand name carries the maximum weightage in selection of a product.

43% of the consumers have shifted to another brand. And when asked for the reason for this change, it was seen that they have done this because of the advice from the dentist. This shows that consumers have become health conscious.

Parents are the ones who influence the purchase decision of a brand. They are the ones who take the decision which brand to get. It is generally followed in most of the households.

Discounts attract the consumers to buy a particular dental care product. The more the discounts offered, the more is the number of consumers.

### Limitations

Although Social Science problems are continuous and have a past and a future, the research ends up getting wholly immersed in the current situations.

In this type of research, data collection takes a lot of time and when it was taken up for analysis, some data was proved to be useless. This method is likely to be the slowest of all.

As we are using, questionnaire as a source of data collection, only educated and co-operating respondents were useful.

Our study only identifies a relevant variable which restricts the research to aim for testing hypothesis.

It was difficult to know whether willing respondents were truly representative or not.

### Suggestions

1. It was found that maximum brand knowledge was through TV advertisements, so for popularising the brand company should make simple and understandable advertisements to connect to more population. Popular celebrities can be used as Brand Ambassadors to attract maximum consumers.
2. Government intervention is required by organizing oral health care awareness camps among the masses. Maximum number of consumers change their brands because of the dentist's advice so routine checkups should be organised regularly.
3. Using social networking sites and newspapers as a tool to target the consumers in order to provide dental care service, Snap deals
4. Association of the company as a sponsor with leading Beauty Contests or Award functions.
5. Flavours and Packaging can be altered according to the age groups especially for kids.

### Conclusion

In case of FMCG products, the marketer must take due care on making his brand popular among the consumers. A few of the following things need to be kept in mind:

1. Deciding on a brand is not an easy task. There are various factors that a consumer considers before making his choice for the selection of the dental care product.
2. TV advertisements are the best source for brand knowledge. The basic aim of a TV advertisement should be to make the consumer aware of the basic characteristics of the product. The advertisement should be a guide to the consumer. The attributes of the product should match the consumer needs.



3. Once the consumer selects a particular brand, he believes in sticking to the same brand. He follows Brand Loyalty. A few factors, mainly Price might influence him to purchase another brand, but still the popularity of the brand counts more than anything else.
4. Parents are the main factor on whom the brand purchase decision is based. They are the ones that directly influence the purchase decision of the consumer.

The purchase of a product is a very important decision taken by the consumer. He evaluates the brand image, compares the price between alternatives, takes into consideration his friends' opinions and then arrives at the decision. The main aim of the FMCG products should be to give value for money to the consumers. This would increase the number of customers for a particular brand. The consumer plus the marketer both would be satisfied.

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## A STUDY OF IMPACT OF ORGANIZATIONAL CLIMATE ON COMMITMENT OF INDIAN IT SECTOR EMPLOYEES

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### ABSTRACT

*The literature related to organizational psychology and organization behaviour indicate that organizational climate and commitment are significant contributing factors towards the organizational Success. This paper proposes the purpose of the study as to investigate the effect of organizational climate on IT industry employee's organizational commitment. The research is cross-sectional, and a sample 236 IT employees survey was administered through the questionnaire. Regression analysis is used to check the impact. Results indicate that affective commitment significantly affected by all nine dimensions of organizational climate, while continuance commitment impacted by seven dimensions except career development and communication. Moreover, normative commitment highly correlated with all dimensions other than the communication. Overall organization climate has significant impact on commitment of employees.*

*Keywords: Organizational Climate, Organizational Commitment, Affective Commitment, Normative Commitment, Normative Commitment, Regression Model.*

### INTRODUCTION

To enhance the productivity and performance of organization, managers should understand the employee attitude and their behaviours. Organizational commitment of employee portrays the attachment towards their organization. Now, the firms are keen to create comfortable, learning, and suitable working environment to enhance employee performance and job satisfaction, decrease their turnover and absenteeism, as well as to improve involvement and attachment towards the organization.

Organization climate is the employee's perception towards the organizations' decision-making process, structure, compensation, development opportunity and rule setting environment. The factors within organization which may have impact on employee and staff. These factors constitute the climate of the firm. This environment has an impact on performance, operation, and culture of the organization. Organizations rely on effective and efficient human assets for their growth. The organization must provide an optimistic, encouraging atmosphere which could enhance commitment and attachment of employee towards the organization. Behaviour and performance of employee is the outcome of their personal traits along with the workplace environment.

Simply, organizational climate is the sum up of employees perceived work environment. Cooil et al. (2009) argued that there are variety of organizational climate constructs available in the previous literature in which there is lesser

amount of settlement about the constitutes of climate. Sparrow and Gatson (1996) focused that climate as shared perception of employee about the organizational functioning, procedures, and policies. The aspects included in this research as an organizational climate are Roles and Responsibility, Respect, career development, communication, decision making and Training & Development. According to Herscovitch and Meyer (2002) organizational commitment as the level to which employee recognize goals and objectives of organization as their own and willing to make effort to grow. Bateman and Strasser (1984) has described commitment multidimensional construct relating to employees' devotion, loyalty, readiness to employ effort, have the desire to be part of organization and congruence of organizational goals and values.

### LITERATURE REVIEW

Organizational climate have nine key dimensions: Organization Structure which indicates the level of formalities adopted by the organization and the extent of rules and regulations to be followed by the employee; Responsibility is the accountable feeling of the employee about the delegated duties; Risk that shows extent the organization emphasize attitude of risk advocacy vs. risk averseness, Reward that refers to promotion and rewards to deserving employees, Warmth indicate whether the organization is lenient or strict and tense; Support means emphasizing mutual support among the colleagues;

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Conflict depict the extent to which a managers are open for different opinions instead of avoiding it; Standards are the importance of performance standards and lastly Identity which pertains feeling of employee to be a part of organization. (Litwin and Stringer, 1968).

Mercer and Bilson (1985) argued that a significant positive relationship exist between satisfaction, activities (organizational climate) and with the commitment.

El-Kassar, 2010 demonstrated that in a learning organization, the leadership dimension and individual characteristics improves due to the structural climate. Organizational climate can prompt creativity and productivity of employee. (Litwin and Stringer, 1968).

Ferris et al. (1998) validated that climate have positive implications on behaviour and attitude of employee. Apart from that it affects the individual and organizational performance.

Abeyrathna et al (2019) conclude that IT background of employee, IT infrastructure and IT knowledge management have the critical role in the inducing the employee's organizational commitment.

Rožman et al (2019) in their research used organizational climate components as leadership, employee relations, employee commitment, employee satisfaction and employee motivation and inferred that each component of organizational climate have positive significant impact on work engagement of employees.

Rameshkumar (2019) evident that employee engagement as strongest predictor for the commitment among the Indian seafarer officers. The study confirms that engagement is positively associated with normative and affective commitment but not significantly associated with continuance commitment.

Shankar Chelliah et al (2015) confirmed that job satisfaction, involvement and perceived organizational support of employees have higher level of commitment by affective and normative as compare to and continuance commitment.

Berberoglu (2018) suggested that climate as important factor to increase the commitment of employees and perceived organizational performance.

Simola 2011 confirmed that organization which gives good career opportunity, employee illustrate more affective commitment. Normative commitment and social responsibility as organizational characteristic are positively associated. (Simola, 2011).

In the study by Sishuwa (2020) investigated major factors influencing employee retention, found that retention was

influenced by job satisfaction, organizational commitment, and workplace structure.

Fu (2020) reported that ethical behaviour and caring climate have high significant positive impact on organizational commitment as well as all three dimensions of commitment. Independence climate had no impact on overall commitment.

Bojdrenou et al (2019) in their research identified that lot of study has been done in the western context on the organizational commitment rather than other part of the world. They concluded that instead of broadly categorizing the antecedents of organizational commitment into individual and organizational factor one need to focus on the external factor or environmental dynamics. The study impact of demographic factor and organizational commitment, it showed that Age, education, tenure, and job position have separate significant contribution on employee's organizational commitment. Tenure (i.e., number of years in the organization) have the highest influence on the commitment.

Through extensive review, researcher get the insight that effect of climate on job satisfaction, productivity, performance and commitment but fails to identify effect of different dimensions of climate on three types of commitment with respect to IT sector employees of India. This paper aims to investigate the relationship between the organizational climate and the employee's commitment and to examine the extent of the relationship between each of the dimensions of the climate and the three types of commitment.

#### OBJECTIVES OF THE STUDY

- To study perception of employees towards organisational climate.
- To identify difference in the level of commitment with respect to factors like age, gender, experience of respondents.
- To study relation between organisational climate & commitment of employees towards job.

#### HYPOTHESIS OF THE STUDY

There is a significant positive relationship between organizational climate and various aspects of employee commitment.

There is significant impact of different components of organizational climate on employee commitment.

  
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Conceptual Model

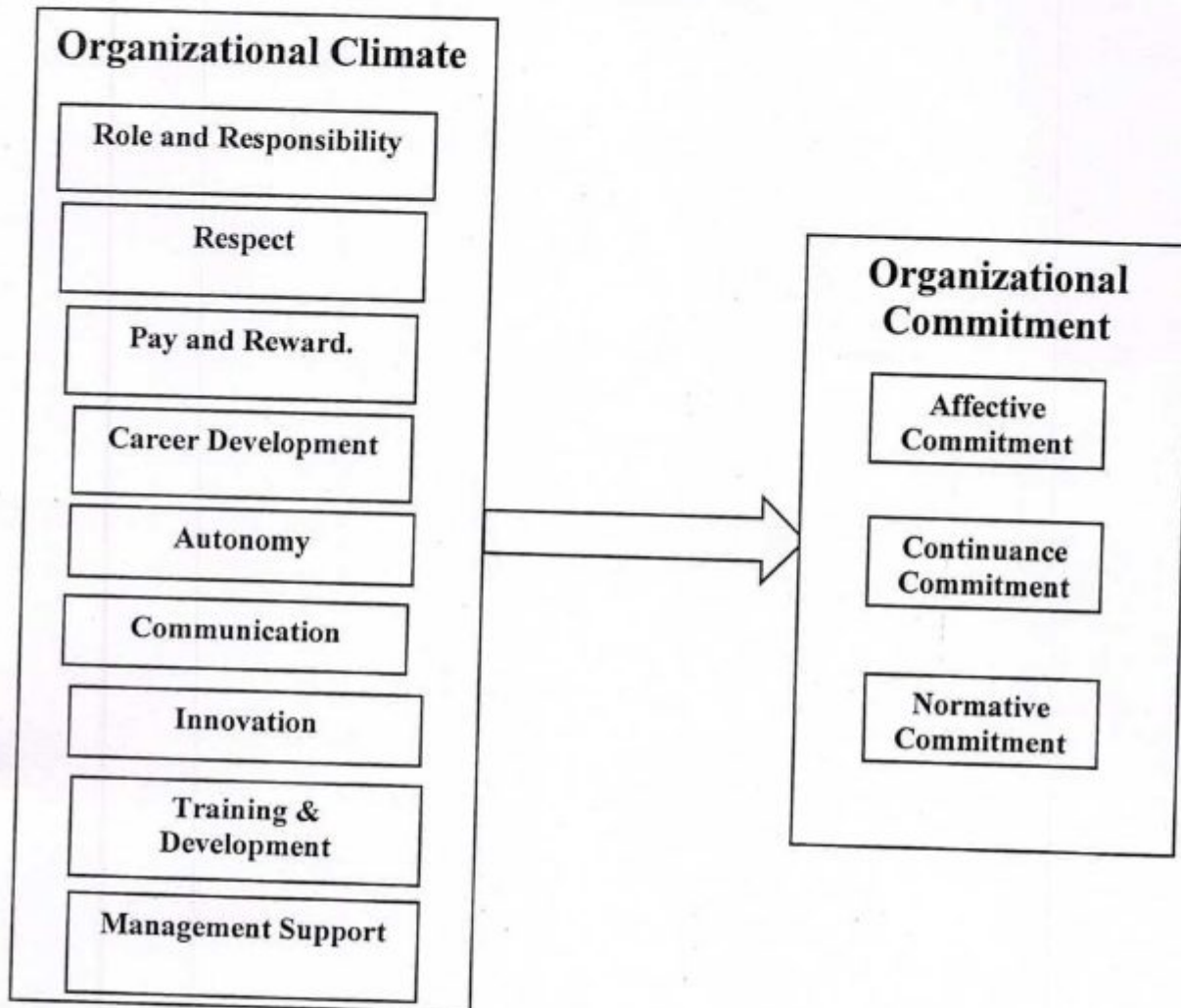


Figure 1: Impact of Organizational Climate on Employee

RESEARCH METHODOLOGY

The present study is descriptive in nature. Employees working in IT firms in Pune have been selected as respondents for the sample. Total 368 questionnaires were distributed among the IT employees, out of which 236 employees returned the filled questionnaire. Convenience sampling method is adopted for selecting the respondents. The questionnaire has three parts. The first part contains the demographic information of respondent. Second part contains organizational climate, and third part is about employee commitment which is designed based on the literature review, and previous studies (Alhaider, 2006; Melhem, 2006). The measure of Organizational Climate

includes 27 items and 9 dimensions, namely Role and responsibility, respect, pay and reward, career development, autonomy, communication, innovation, training & development, and management support. To measure employee commitment, Meyer, and Allen's (1991) three-component model of organizational commitment has been used. Three components of organizational commitment are Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC). This questionnaire has 9 items with three dimensions of organizational commitment. The statements were formed on five-point Likert scale Strongly Disagree to Strongly Agree.



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## RESULTS AND DISCUSSION

### 1. Reliability Analysis

**Table 1: Reliability Indices of Organizational Climate and Commitment.**

Scale	Number of Items	Cronbach's Alpha
Role and Responsibility	03	.893
Respect	03	.902
Pay and Reward	03	.771
Career Development	03	.724
Autonomy	03	.914
Communication	03	.815
Innovation	03	.768
Training and Development	03	.765
Management Support	03	.843
Overall Organizational Climate	27	.812
Affective Commitment	03	.839
Continuance Commitment	03	.832
Normative Commitment	03	.896
Overall Commitment	09	.902
Overall		.854

Cronbach's Alpha coefficients for the organizational climate dimensions are in a range of 0.765 to 0.902; for organizational commitment on 3 dimensions ranges from

0.832 to 0.896. The Cronbach's Alpha coefficient of overall Organizational climate was 0.812 and for organizational commitment 0.902. All the Cronbach Alpha indices indicate that data has satisfactory reliability.

### 2. Descriptive Statistics

**Table 2: Descriptive Statistics of dimensions of organizational climate. (Perception of Organization Climate)**

Dimension	N	Mean	Std. Deviation
Roles and Responsibility	236	3.7500	.55420
Respect	236	4.1389	.54263
Pay and Reward	236	4.0000	.89443
Career Development	236	3.9722	.81015
Autonomy	236	4.0278	.90982
Communication	236	3.7222	.84890
Innovation	236	4.2778	.88192
Training and Development	236	4.0278	.90982
Management Support	236	3.8889	1.14087
Overall Organizational Climate		3.9704	.62730

Source: Primary Data

From the above table of descriptive statistics showed that overall organizational climate mean extended (3.9704). This indicates that IT employees are perceived to be happy with organizational environment. Among the

organizational climate dimension, innovation practices scored the highest mean (4.2778). The second highest dimension of organizational climate was respect, with a mean of (4.1389).

**Table 3: Descriptive Statistics of the dimensions of organizational commitment**

Dimension	N	Mean	Std. Deviation
Affective Commitment	236	3.8333	.96362
Continuance Commitment	236	3.7500	.95991
Normative Commitment	236	4.0139	.67067
Overall Organizational Commitment	236	3.8657	.80457

Source: Primary Data



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Above table depicts that organizational commitment among the IT employees are in between 3.75 to 4.01. The mean of overall commitment was 3.8657. This indicates that employees have a good commitment for their organization.

**3. Age, Gender and Experience wise Organizational Commitment**

**Table 4: Descriptive statistics of Gender wise organizational commitment**

With respect to Gender Organizational Commitment				
Gender	N	Mean	Std. Deviation	Std. Error
Male	132	4.1021	.98119	
Female	102	3.5657	.97683	.09812
Total	236	3.8657	.98008	.08376
				.06380

**Table 5: ANOVA**

OC	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.603	1	1.603	1.673	.197
Within Groups	224.126	234	.958		
Total	225.729	235			

Source: Primary Data

From table 4 and 5, it indicates that level of organizational commitment won't change with respect to gender. Male and Female employee shows almost same level of organizational commitment.

**Table 6: Cross tabulation of Age and Organizational Commitment**

		Age * Organizational Commitment Crosstabulation					
		1	2	3	4	5	Total
Age	below 30	16	8	38	59	04	125
	30 to 40 years	4	9	20	20	13	66
	40 to 50 years	0	7	02	6	12	27
	above 50	0	0	3	12	3	18
Total		20	24	65	97	32	236

**Table 7: Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	80.874 <sup>a</sup>	9	.000
Likelihood Ratio	84.691	9	.000
Linear-by-Linear Association	.397	1	.529
N of Valid Cases	236		

Source: Primary Data

In the sample, about 53% respondents are of age below 30 years, 27% are of age between 30 to 40 years. Applying chi-square test independence for age and employee

commitment indicates that there is significant association with both. It shows that with age level of commitment increases.



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Table 8: Correlation Test to check correlation between Experience and Organizational Commitment

		Correlation	
		Current Org. Exp.	Organizational Commitment
Current Org. Exp.	Pearson Correlation	1	.246**
	Sig. (2-tailed)		.000
	N	236	136
Organizational Commitment	Pearson Correlation	.246**	1
	Sig. (2-tailed)	.000	
	N	236	236

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Above results shows that there is significant correlation between current organization experience and commitment. It indicates that as the employee serve the level of commitment increases.

### 3. Correlation Analysis

Table 9 correlation between dimensions of organizational climate and commitment

Dimensions of Organizational Climate	Organizational Commitment		
	Affective Commitment	Continuance Commitment	Normative Commitment
Roles and Responsibility	.659*	.857**	.777**
Respect	.546**	.413*	.402*
Pay and Reward	.455**	.420*	.415*
Career Development	.369*	.283	.373*
Autonomy	.625**	.541**	.482**
Communication	.452**	.116	.175
Innovation	.581**	.483*	.411*
Training and Development	.561**	.488**	.388*
Management Support	.857**	.468*	.727**

\* Significant at 0.05 level (2-tailed) \*\*Significant at 0.01 level (2-tailed)

Source: Primary Data

The results of Table 4 indicate that continuance commitment has no correlations with career development and communication. Apart from this, normative commitment has no correlation with communication

component of the organizational climate. All other dimensions of organizational climate have significant correlation with three components of commitment.



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**Table 10: Correlation between organizational climate and organizational commitment**

		Correlation	
		Organizational Climate	Organizational Commitment
Organizational Climate	Pearson Correlation	1	.782**
	Sig. (2-tailed)		.000
	N	236	136
Organizational Commitment	Pearson Correlation	.782**	1
	Sig. (2-tailed)	.000	
	N	236	236

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From above table it shows that there is significant correlation between organizational climate and commitment at 1% level of significance.

**4. Regression Analysis**

**Table 11 Model Summary**

Model	R	R Square	Adjusted R Square	Sig. F Change
1	.782a	.611	.603	.000

a. Predictors: (Constant), Roles, Respect, pay, career development, autonomy, communication, innovation, training, management support

**Table 12 ANOVA<sup>b</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.658	8	2.707	73.174	.000a
	Residual	.999	27	.037		
	Total	22.657	35			

a. Predictors: (Constant), Constant), Roles, Respect, pay, career development, autonomy, communication, innovation, training, management support  
 b. Dependent Variable: Commitment

**Table 13 Simple Regression Model**

Model		Standardized Coefficients	Sig.
1	(Constant)	.490	.006
	Roles and responsibility	.220	.036
	Respect	.327	.002
	Pay	.232	.002
	Career development	.257	.000
	Autonomy	.014	.117
	Communication	.129	.029
	Innovation	.026	.763
	Training and Development	.501	.000
	Management Support	.346	.003

a. Dependent Variable: Commitment

The statistical results of the multiple regression model, as shown in Table 4, indicate that coefficient of determination (R square) was calculated as 0.611, which means that dimensions of organizational climate explain 61.1% of the

variation that occurs in organizational commitment. It indicates that there is significant effect of organizational climate on commitment. Roles and responsibility, Respect, Pay, Career development, communication, Training and



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development and Management support significantly affect the organizational commitment.

### CONCLUSIONS AND RECOMMENDATION

The present study examined the impact of organizational climate on employee commitment of Indian IT companies. Organizational climate was assessed with the help of nine dimensions. The results indicated that the Indian IT companies' climate is good and suitable as all its dimensions mean score were above the average.

The results support the hypotheses of the study. The findings indicate that the chosen independent and dependent variables have significant relationships. It was found that organizational climate had a positive effect on organizational commitment. 61.1% of the variation that occur in the commitment is explained by perceived organizational climate. As for other independent variables, age and tenure of employee have impact on level of commitment.

Organization should give attention on their environment. Organizational climate is an important attribute in contributing to the commitment of employees, which will enhance their loyalty and belonging.

### LIMITATIONS AND FUTURE RESEARCH

As findings of the current study are based on self-report data that might create a bias in the study. This research referred particularly IT industry in India, so it is not possible to do the generalization of results to other industry.

This study concentrated only organizational climate as antecedent of employee commitment, future research may include other independent construct viz organizational support, organizational justice, employee engagement etc. As for the future study, longitudinal study would be suggested so employee commitment can be examined with the time and development stages employee.

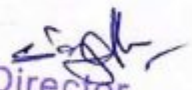
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## A STUDY ON INVESTMENT PATTERN OF YOUNGSTERS (AGE GROUP 21-30)

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### ABSTRACT

*Savings form an important part of the economy of any nation. With the savings invested in various options available to people, the money acts as driver for growth of the country. There are lot of investment choices and one must select the most appropriate. The person dealing with planning must know all the investment choices and how these can be chosen for the purpose of attaining overall objectives. The purpose of this study is to determine the awareness of the young generation (age group 21-30) towards various investment avenues available, the various investment avenues preferred by youngsters for savings investing and factors that are generally considered by them while making investment. The study also aims at determining whether the current generation has shifted from conventional investment avenues towards the emerging investment avenues. Investor's perception will provide a way to accurately measure what the investors think about the various investment avenues. For this we conducted survey in the areas of Nasik, Pune and 300 respondents conveniently selected were analyzed to know their perception regarding the various avenues of investment, their objectives, and their preferences. The respondents belong to the age group 21 to 30*

### INTRODUCTION

The dictionary meaning of investment is to commit money to earn a financial return or to make use of the money for future benefits.

The Indian financial scene presents a plethora of avenues to the investors. Though certainly not the best or deepest of markets in the world, it has reasonable options for an ordinary man to invest his savings. The money people earn is partly spent and the rest saved for meeting future expenses. Instead of keeping the savings idle they may like to use savings to get returns on it in the future. This is called Investment. The sooner one starts investing the better. By investing early, you allow your investments to grow for longer duration, whereby the concept of compounding increases your income, by accumulating the principal and the dividend earned on it year after year. Investing early allows shaping the future and building equity, paying later chains us to fixing the missed opportunities of the past.

Developing countries like India face the enormous task of finding sufficient capital in their development efforts. With high capital output ratio, India needs very high rates of investments to make leap forward in its efforts of attaining high levels of growth. Since beginning of planning, the emphasis was on investment as the primary instruments of economic growth and increase in national income.

The investment avenues available are Mutual funds, Bonds, Commodity market, Stock market, Government securities, Insurance policies, Corporate debentures, Company fixed deposit, Post office savings, Real estate, Bullion, Forex Market, Fixed deposits etc. The emerging investment avenues include virtual real estate, hedge funds, private equity investments, etc.

Based on their objectives, purpose and expectations, the youngsters (21-30) choose the best available alternative to invest.

This analysis on individual investor behavior is an attempt to know the profile of the investor and know the characteristics of the investor to know their preferences with respect to their investment. The study also tries to unravel the influence of demographic factors like age, occupation on investment of the investor.

### LITERATURE REVIEW

Behavioral finance is new emerging science that studies the irrational behavior of the people. The study entitled "Investment Pattern of People" written by Avinash Kumar Singh (2006) has been undertaken with the objective, to analyze the investment pattern of people in Bangalore and Bhubaneswar. Analysis of the study was undertaken with the help of the survey conducted. After analysis and interpretation of data it is concluded that in Bangalore, investors are more aware about various investment avenues & the risks associated with them. All the age groups give more importance to invest in equity & except people those who are above 50, give importance to insurance, fixed deposits, and tax-saving benefits. Generally, those investors who invested in equity, personally follow the stock market frequently i.e., on a daily basis. But those who are invested in mutual funds watch the stock market weekly or fortnightly. But in Bhubaneswar, investors are more conservative in nature and prefer to invest in those avenues where risk is lower like bank deposits, small savings, post office savings, etc.

Gaurav Kabra, et al (2010) in their study gain knowledge about key factors that influence investment behavior and ways these factors impact investment risk tolerance and decision-making process among men and women and among different age groups. They concluded that the modern investor is a mature and adequately groomed person despite the phenomenal



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## CHALLENGES TO HR PROFESSIONALS DUE TO COVID - 19 PANDEMIC

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### ABSTRACT

*HR professionals have to accept the challenges which are arises Due to covid 19 pandemic. They have to develop strategies that organizations use to make them stay competitive and survive in their business niche. The objective of the study is to provide an Understanding of the challenges of HR Professionals facing Due to Covid 19 pandemic. This study tries to closely examine the views of HR professionals post Covid 19 pandemic related to the human capital challenges, challenges of HR professionals during Covid 19 and Perception of the HR Professionals with respect to Remote work policy. It also contributes to the development of effective interventions for dealing with Challenges during Covid 19. For this research, questionnaire is provided among 50 HR Professionals and the researcher have received 36 valid responses. Using the data from the survey, this project investigates the Perception of HR Professionals related to the remote work policy. The finding of this research indicates that topmost Challenge of HR professionals during Covid 19 pandemic is employee well-being and health. During Post pandemic Human Capital Challenge is building future leader. Managing remote work policy is the most difficult problem posed in front of HR professional. It is targeted that the study will help HR professionals address such questions as well as to will provide guideline for choosing the appropriate management approach especially during and post pandemic period of the Covid 19.*

**Key words:** Covid 19, Human capital challenges, Remote work Policy



  
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## 1. INTRODUCTION

Covid- 19 pandemic situation affected health, economy, and market very gravely. Due to Covid- 19 Pandemic, organizations are facing lot of uncertainty. The organizations have to make lot of adjustments at their workplace. At the same time, employees are struggling about the feeling of uncertainty, their own wellbeing. The HR professionals who are considered to be a change agent has a crucial role as they are well connected with employees and management. Due to 'New Norms' of working like social distance, safety precautions, hygiene protocols, quarantine and isolation of employee etc., HR has to revise the previously formulated policies. With regards to workforce, HR professional encounters namely Engaging employees, keeping their morale, restoring their productivity etc.

HR professional shown agility, creativity and flexibility during this situation. As norm of workforce was remote working, almost overnight HR department converted the brick and mortar offices into virtual workplaces. The nature and spread of this virus indicating that this work setting will remain as a norm for at least a year. This will affect HR practices like Recruiting, Selection, Onboarding and Training and Development.

The organizational challenges after the covid 19 has a major impact on organizations themselves, HR professionals, and obviously on their Human capital. The working policies of the organization will get change. HR should be prepared to deal with the consequences. Remote work policy is one form of challenge in which an organization allows the employee to work from everywhere except from the working place. In addition, post covid 19 Human capital and HR Professionals has to face mental health challenge, employee engagement, retaining employee.

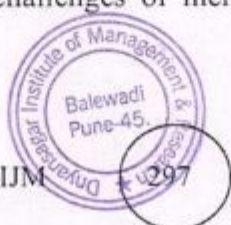
## 2. OBJECTIVE OF THIS STUDY

- To study the perception of HR professional w.r.t. Organization's Human Capital Challenges in Post Covid 19 scenario.
- To analyse the challenges faced by HR professional during the pandemic
- To study the perception about Remote Work Policy in future from the view of HR

## 3. REVIEW OF LITERATURE

According to Shuana Zafar Nasir (2017) HR has to handle many challenges in the context of 21<sup>st</sup> Century like; change management, conflict management, managing diversity of workforce, managing 5R's (Resourcing, Recruiting, Retraining, Retaining, and Restructuring), workforce diversity, globalization, striking work life balance, succession planning etc. It is the responsibility of HR to gain competitive advantage by increasing organizational efficiency and effectiveness for a long-term survival in highly uncertain and complex marketplace.

Parag Markhede and Seema Joshi (2007) in their research study on challenges of Human Resource Management in borderless world identified the major challenges as rework the vision and mission of the company, information & knowledge age, attracting and retaining talent, empowering employees, managing global workforce, enhancing the supplementary services, managing workplace diversity, challenges of mergers & acquisitions and managing cross cultural communication.





Sudhir Das and Sarika Chaurasia (2020) identified career growth & opportunities, salary & rewards, job design, quality of work-life (QWL) and employee welfare are important HR challenges in Indian Commercial Banks.

Srivastava and Agarwal (2012) asserted that the great challenge of HRM is to attract, retain employees, managing cross cultural diversified, technological and information challenges. These HR challenges can be overcome through cross cultural, technological, and informational training.

Mahadevan and Mohamed (2014) in the study for Malaysian telecom major aim is to identify the impact of HR practices (Training, Compensation, and employee participation) on employee performance. It was found that there was a significant relationship and impact of training and compensation plans on employee performance whereas employee participation had less impact on employee performance.

In research article HRM challenges in transition to project management (project based organization) reviewed HRM trend changes in transition to project based organizations. The problems of HRM are workload for the project workers, increasing requirements for individual workers, human resource development, career path possibilities, motivation possibilities.

In Nepalese organizations with HRM has not still developed like developed countries. HR decisions are taken centrally and the responsibility of implementation of decision are with line managers and HR department. departments, twenty eight percent have a HR director who has a place in the Board of Directors or equivalent.

#### 4. RESEARCH METHODOLOGY

The steps in which the research was carried out was by collecting both the primary and the secondary data. The present study is descriptive in nature, as it seeks to discover ideas and insight to bring out new relationship. Research design is flexible enough to provide opportunity for considering different aspects of problem under study. It helps in bringing into focus some inherent weakness in enterprise regarding which in depth study can be conducted by management. We use a convenience sample which is a type of non-probability sampling method where the sample is taken from a group of people easy to contact or to reach. The Data collection work was carried out with the help of questionnaire providing to HR professionals for that we distributed questionnaire of the research among 50 HR professionals from that we collected 36 responses.

#### 5. DATA ANALYSIS AND INTERPRETATION

##### 5.1 Material and Methods

The respondents of this study were HR professionals. The Snowball Sampling method was adopted to contact HR professionals. Initially 50 HR professionals completed questionnaires and returned. But 14 questionnaires were discarded from the analysis as it was incomplete.

Of the 36 participants, 20 (55.6%) were female and 16 (44.4%) were male. The average experience in years as a HR professional is 4.9 years. More than 40% of the respondents works in service sector followed by other and manufacturing sector. About 66% respondents are unmarried.

The questionnaire consists of 23 items which are divided into four parts. First part is general demographic information. In the second part 10 items are of the perception of HR professional as Human Capital Challenges post Covid (e.g. employee engagement, developing leaders etc.) . The third part consists of 7 items which deals with the HR professional challenges during pandemic (e.g. Mental Health and well being, Managing Remote Work etc) and last part consist of 6 items are regarding the views of remote work policy (e.g. policy will become permanent,



## Challenges to HR Professionals Due to Covid -19 Pandemic

more stressed etc.) . Items were rated on 5-point scale : 5 Strongly Agree, 4: Agree, 3: Neutral, 2: Disagree, 1: Strongly Disagree)

**Table 1** Reliability Statistics

Cronbach's Alpha	N of Items
.970	23

As value of Cronbach alpha is 0.970 which is greater than 0.9 indicates that data is excellently reliable.

**Table 2** Perception of HR professionals regarding future Human Capital Challenges during post Covid

	Mean	Std. Deviation
Maintaining high levels of employee engagement	4.1389	1.12511
Developing the next generation of organizational leaders	4.2722	1.25325
Maintaining competitive compensation offerings	3.7500	1.15573
Retaining our highest-performing employees	3.8333	1.20712
Retaining employees overall	3.8056	1.14191
Finding employees with increasingly specialized skills	3.6389	1.26836
Managing change in strategies or market volatility	4.0556	1.19390
Managing the loss of key workers and their skill sets during the lockdown period	3.7500	1.33898
Finding the right employees in the right markets around the world	3.7222	1.18590
Adopting new technology within the organization	3.8333	1.42428

From above analysis it indicates that highest challenge in front of HR professional is developing the next generation of organizational leaders, Other top human capital challenges identified were maintaining high levels of employee engagement ( average 4.13), Managing change in strategies ( average 4.05 ) and adopting new technology within the organization ( average 3.83).

**Table 3** Crosstab Sector Vs Human Capital Challenges

Count		Average HCC					Total
		1	2	3	4	5	
Sector	Manufacturing	0	0	0	4	1	5
	Other	2	4	0	5	4	15
	Service	0	0	2	8	6	16
Total		2	4	2	17	11	36

**Table 4** Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.543 <sup>a</sup>	8	.029
Likelihood Ratio	11.697	8	.025
N of Valid Cases	36		



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The above table indicates that sector wise Human Capital Challenges are differing. As p-value is  $0.029 < 0.05$ , it indicates that sector wise Human Capital Challenges are different.

**Table 5** Descriptive Statistics HR professional challenges during Covid- 19

	Mean	Std. Deviation
Mental Health and well being	4.2278	1.31987
Managing Remote Work	4.0000	1.26491
Lack of Agility (critical to respond fast and move quickly)	3.6111	1.39955
Employee Communication	3.8889	1.21368
Uncertainty	3.7500	1.31747
Implementation of Preventive Measures	3.7778	1.19788
Review Current Welfare Practices	3.82	1.14087

From above table it indicates that greatest challenge in front of HR professional is Mental health and well-being of employees (average 4.22). Followed by managing remote work (average 4) and employee communication (average 3.88) respectively.

**Table 6** Perception about Remote Work Policy

	Mean	Std. Deviation
This policy will become permanent	3.1278	1.42400
Managing remote work will be most challenging task for HR professional	4.1500	1.27335
Employees are more stressed	3.5722	1.20679
Employee productivity has been increased	3.0611	1.07312
More stretch working hours	3.8056	1.48938
Cost saving model for businesses	3.8611	1.22247

From above table indicates that HR professional feels that Managing remote work policy is the challenging task for them (Average 4.15). HR professionals perceived that remote work policy would be cost saving model for businesses (average 3.86) and more stretched working hours (average 3.81). HR professionals are neutral about the employee productivity has been increased due to RWP and this policy will be permanent (average 3.12).

**Table 7** Crosstab Marital Status Vs Remote Work Policy

Count		Average RWP				Total
		2	3	4	5	
Marital Status	Married	1	2	8	4	12
	Unmarried	7	4	9	4	24
Total		8	6	17	8	36

**Table 8** Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.562 <sup>a</sup>	3	.005
Likelihood Ratio	.595	3	.097
N of Valid Cases	36		

From the above data it indicates that perception of remote work policy changes with marital status.

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## 6. CONCLUSION

This study was undertaken with the basic objective to identify major Human Capital challenges that would be raised in post Covid 19 Scenario along with HR professional challenges. Business leaders can agree with the fact that success of organizations depends on attracting, retaining, engaging, and managing human talent. Developing the next generation of organizational leaders took the top spot among the human capital challenges. Organizations often struggle with identifying potential leaders to select for further development. The misidentification of future leaders of business organization results from confusing high management performance with high leadership potential. The next reported Human Capital challenge is that maintaining high levels of employee engagement.

The sudden outbreak of Covid 19 created an impact on every life of the world. The sudden shift brings a toll on employee well being and health. HR professional challenge during this pandemic is maintaining employee well being and health. Stress, anxiety, and other mental issues of employees were the challenges for the organizations but due to pandemic these issues are now in the front seat. Before pandemic only IT sector was leading in remote work policy but due to Covid-19 almost all sectors are rushing to build remote work strategies. This led to many unexplored problems in front of HR professionals. Deprived of right communication channel, it becomes difficult to manage remote work policy effectively.

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## ASTUDY ON AWARENESS OF NATURAL FARMING VEGETABLES AND FRUITS AMONG CONSUMER'S IN PUNE CITY

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### ABSTRACT

**Research Aims:** To know the awareness about natural vegetables and fruits among Consumers in Pune city.

**Design/methodology/approach:** Descriptive research design, Survey method, Questionnaire.

**Research Findings:** Majority of respondents are (24.7% + 20.9% = 45.6%) are aware that natural grown vegetables and fruits have no chemical residue & hence safe to eat. 45% of respondents were not aware of places where natural vegetables and fruits are sold in Pune city and 23% were having a little bit idea of its availability.

**Theoretical Contribution/Originality:** Awareness of natural farming vegetables and fruits among consumers in Pune city. SPNF would help to reduce water, air and environment pollution

**Managerial Implication in the South East Asian context:** Consumers would understand about natural farming vegetables and fruits and its benefit for health as it is residue free and poison free.

**Research limitation:** The limitations are the survey was conducted in Pune city and only natural vegetables and fruits awareness was checked.

**KEY WORDS:** Natural fruits and vegetables, ZBNF, SPNF, Pillars of ZBNF, Health, disease.

### INTRODUCTION

"Without Health wisdom cannot be noticed, art cannot be manifested, strength cannot be displayed, wealth becomes immaterial and intelligence cannot be implanted".

Above quote explains importance of health which comes foremost in our lives. Today the issue of human health regarding general health of humans is alarming situation. Century ago the diseases which were not present are visible now a days due to change in our daily lifestyle, stress due to life style has worked as a fuel for the fire that is burning our body with disease, which were not present before century ago. The fruits and vegetables we eat to survive has become a slow poison.

After Green Revolution India become self-reliant in terms of food. Farmers are intending towards the modern agricultural process such as -modified version of seeds and natural farming. Farmers exercised heavily fertilizers, pesticides chemicals, which spoiled the soil. Now Farmers do not want to use these agricultural methods which erode the soil and environmental degradation in portable water, air pollution causing health. The Threaten of human health due to access use of human diseases and livestock disease.

Padmashri Dr. Subhash Palekar understood the drawback of chemical farming where yield was decreasing year on year. Farmers were facing financial crisis and he worked to find out solution to chemical farming. After a research for 10 years, he came with technique of Zero Budget Natural Farming. ZBNF produce a poison free food as the farmer does not use any

chemical fertilizer and chemical pesticides while growing his crop. In ZBNF or SPNF the farmer prepares fertilizers and pesticides at home, without using any chemicals.

Agriculture sector in India is facing the problem of the farmer's suicide in recent years. The figures of year 2018 showed that average of more than 10 suicides per day in India (Grüere, G. & Sengupta, D. 2011). The reasons are the increasing cost of production in agriculture, cost of fertilizers, pesticides and maintenance of tractor charges which is used for ploughing, sowing etc. due to high diesel and oil prices. Instead of these selling prices of goods produced by farmers have not increased considerably and hence there is a much more mismatch in expenditure done on the crop and revenue earned by farmer.

### LITERATURE REVIEW

Rushi, B and Akshay, B (2017) discuss in their research work that implementing conventional chemical farming methods is just like cancer to our soil and health. Conventional method makes the soil barren ultimately makes the farmer under debt due to unproductiveness of farming. The problem can be resolved only through Zero Budget Natural Farming (ZBNF) technique. Dr. Subhash Palekar propounded methods which gave a recommendation of natural farming; the paper also discussed four pillars like Jivamrita, Bijamrita, Adharaana and Whapasa. The paper also describes importance of crop rotation, green manures and biological nitrogen fixation.

Zareen Pervez Bharuchaa, Soli, S. S. (2020) explore in their paper about Zero Budget Natural Farming (ZBNF) technique.



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## Influence of Human Resource Development in Knowledge Management Implementation in selected enterprises in IT Sector

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**Abstract:** The proposed research paper outlines the relationship of significant variables such as the involvement of Human Resource Development (HRD) along-with the implementation approach for successful application of Knowledge Management (KM) in enterprises in IT sector. A literature study was carried out to identify the problem statement that provided a theoretical base for the study undertaken; wherein the central point rested on the contribution of HR personnel perspective in the implementation of KM in an enterprise. Both qualitative and quantitative methods have been considered for this study. Primary and secondary sources considered as modes adopted for collecting data. An attempt is made to explore the dimensions of the multifaceted role played by HR personnel and its relevance in today's fast-paced technological advancements taking place especially in context to the IT sector.

As a final proposition the researchers intend to quote that Enterprise Knowledge Management (EKM) should be considered as one of the vital business methodologies; wherein HR personnel play a significant role to handle professional, systematic and well planned EKM application.

**Keywords:** Enterprise Knowledge Management (EKM), Human Resource Management (HRD), Human Resource Management (HRM); Information Technology (IT) Sector

### Introduction

Knowledge base competency can be one of the most significant aspects among others in the success of any Business. Knowledge Management can be understood as a process of creating, capturing, storing, sharing & applying Knowledge. Knowledge based systems and its association with Human Resource Development (HRD) has taken the role of the HR Managers at a higher stand and given HR function a multidisciplinary facet. Gartner defines Enterprise Knowledge Management as "a centrally guided KM program that supports multiple business objectives. Enterprise KM is certainly a multi-disciplinary area driven with a strong support from advanced information technology. It is the group knowledge that gets generated from the pool of knowledge in a business and the environment in which it resides. The HR department plays a vital role in ensuring the smooth running of an enterprise. Most importantly by tracking and analyzing the promptness and work patterns of the workforce which help the knowledge workers to perform and also to acquire knowledge. As the dynamic situations arising in the world today

direct impetus to undergo changes, may it be current pandemic situation or technological advancements; an enterprise needs to withstand the transformations.

**Review of Literature:** Existing Knowledge Management Systems, Models and Frameworks, in general and few specific to IT Industry were reviewed. Various books and also research article and papers were very useful to understand the area of enterprise knowledge management as well as its association with both the IT sector and the Human Resource area. The literature study provided a conceptual base for recognizing the problem statements wherein the main point rested on the study of application of Enterprise Knowledge Management in HRD in the selected IT companies in and around Pune City. It was time consuming yet interesting to meet various levels of Human Resource Personnel working in various enterprises in and around Pune City, which is one of the IT Hub in Maharashtra State of India. The role played by different stakeholders was studied in order to study their involvement and contribution towards the application of Enterprise Knowledge Management with emphasis in HRD. These also include the study of the factors influencing the application of EKM. Application of EKM is critical at the same time it becomes very much essential; with HR personnel playing a vital role became an imperative facet for the research study.

### Research Scope and Objective(s)

One of the important elements of this study is about application of EKM in the area of Human Resource Development; wherein HRD as a discipline spans in various functions in the organization such as recruitment and selection, Training and Development, Payroll and appraisals, etc. The scope of the research is to understand the existing Knowledge Management Systems that facilitate the business processes in organization and examine the challenges faced by the HRD during implementation of KMS. The geographical scope is limited to the IT companies in and around Pune city in India. Some of the objectives of the study chosen for this research paper are as follows;

1. To study the impact of application of EKM in HRD in IT companies.
2. To assess the attitude and role of HR in application of EKM in IT company

### Research Framework and Design

Qualitative and Quantitative Methods have been followed for this study. The modes adopted for collecting data in order to achieve the research objectives are primary and secondary sources. Hypothesis Statement limited to the scope of this paper:  
H1: "Application of Enterprise KM in HRD majorly leads to successful management of business challenges".

H0: Application of EKM has no impact on managing the business challenges.

Primary Data is collected by administering Structured Questionnaire and conducting In-Depth Interviews with the HR personnel, Knowledge Officers and other knowledge workers from the selected Companies in IT Sector in and around Pune. Scheduled Interviews and discussions were



also carried out with the employees working in few of these enterprises initially. Secondary Data collected by the researcher by visiting several Libraries. Study of published sources includes books, monographs, journals, research papers and research articles, conference proceedings, press clippings, company documents, project reports, published thesis and dissertations. Information on the internet and websites having data related to the research topic has been referred along-with the published data.

Research Framework at a glance	
Population Profile	IT Companies in and around Pune
Sample Strata Profile	Indian&Indian MNCs And Foreign MNCs
Sample size of respondents for Survey	56 No. (28 of each type)
Sample for Personal Interview/Discussion	12 no.
Profile of respondents	Selected Both Senior and Middle Managers
Sampling Techniques	Purposive Conventional Sampling Method and Stratified Disproportional Sampling

Table No: 1.1: Research Framework at a glance

The selection of the sample units was planned based on criteria such as:

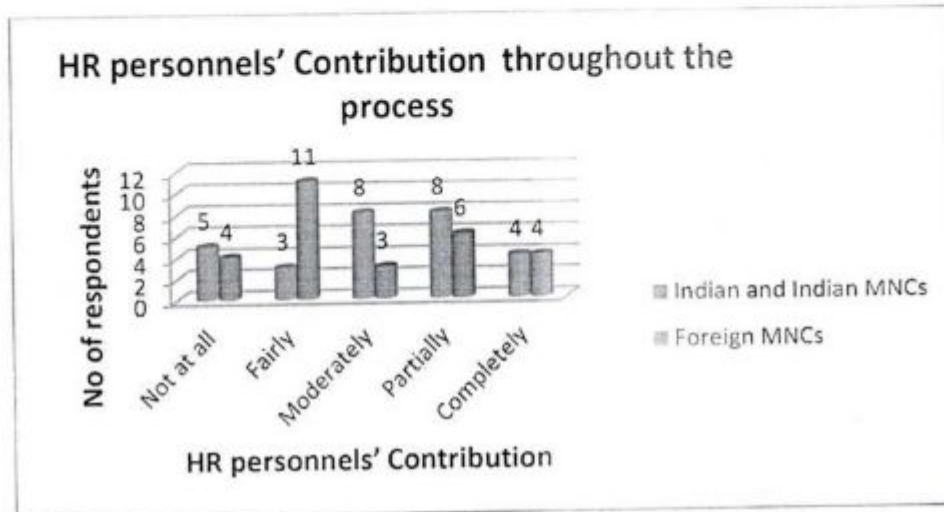
- i) The selected companies in IT sector located in and around Pune were considered.
- ii) The Enterprises having annual turnover of around five crores of INR and above, and capital investment of more than 50 lakh INR was chosen for the study.
- iii) These selected IT companies were having proper separate HR department.
- iv) Multinationals types- both Foreign and Indian Multinationals companies considered.

Survey Method is used for this research study. Interview and discussions were as well used as supportive techniques for exploring data.

### Data Analysis, interpretation and Findings

Multi-Stage Sampling Technique (Purposive Convenience Technique) was used to carry out the research work. The researcher has selected, more than 7 % of the sample; from the population of IT Companies in and around Pune as per specified criteria. Based on the 2 main lists obtained from MCCIA and fundoodata.com, 75 companies were chosen which fulfilled the criteria framed for the sample selection.(Table No: 1.1 given above). Moreover the IT companies which are operational in and around Pune were the chosen companies. Further based on the addresses of the companies whose base address or branch address fall in and around Pune were short listed, contact details of around 100 companies were selected and communicated. Based on the validity and completeness of Questionnaire responses, 56 respondents were considered. There were 28 responses drawn from each type of companies- Indian Multi-Nationals and Foreign Multinationals. Apart from this, 12 respondents were interacted with for Interviewing and discussion. This interview data collected has been used for data analysis and interpretation.

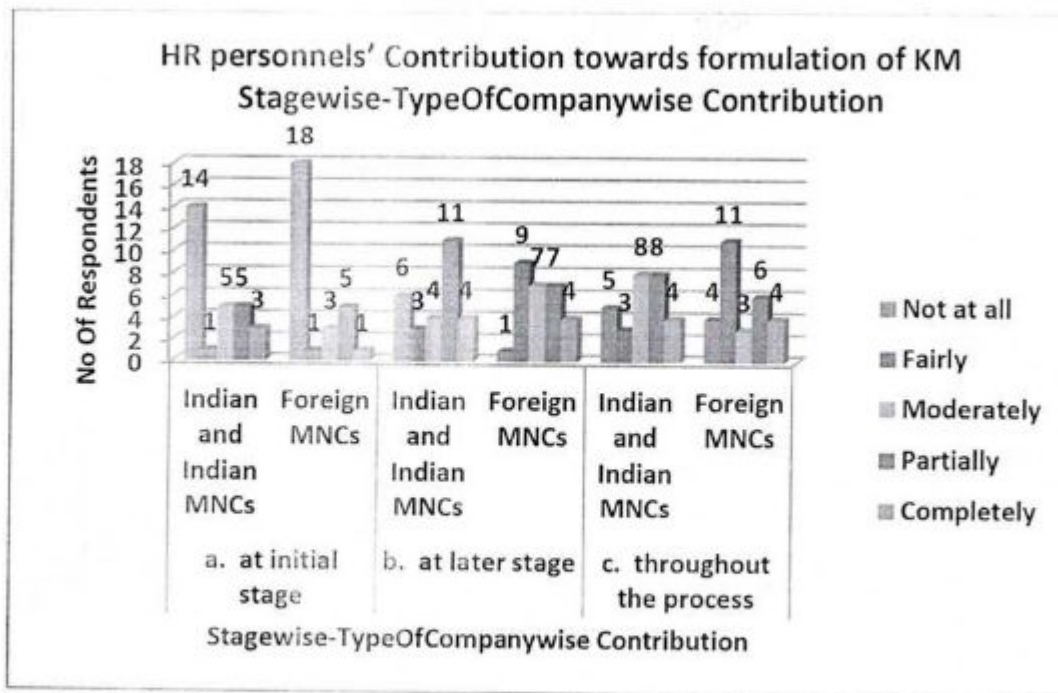
In the entire full length research work done as a part of the doctoral research study, the researcher has used multiple scales namely; Nominal scale, Ordinal scale ranking and Summated scale or Likert scale. The statistical testing tools like Percentage, T- Test, Ranking, Chi-square test, Mean and ANOVA have been utilized appropriately to test the data. The data is analyzed using various parameters like Knowledge sharing initiatives, KM Practices, colleagues' contribution and Employees initiative, scope and responsibilities of HR, Primary role of HR Department, Resource development and management, Association with KM, HR challenges, Distribution of respondents was done based on various criteria such as: Type of Organization, major Domain and annual turnover.



Graph No 1.1: HR personnel's' Contribution towards formulation of KM Initiative- throughout the process

As depicted in the Graph No 1.1 & 1.2 (given below) HR personnel's' Contribution towards formulation of KM Initiative can be viewed. It is observed that the involvement of both Indian & Indian MNCs and Foreign MNCs shows low percentage 28.57% and 21.42% respectively, in the *initial* stage; which indicates the need of more attention during the initiation of any new KM drive in the organization that would certainly increase the success rate and impact of KM implementation. Moreover it can be observed that the rate of involvement of the HR personnel in formulation and execution of KM Initiative is significant in Indian companies especially in the *later stage* with 53.57% as compared to that in Foreign MNCs 39.28%. The contribution level of Indian & Indian MNCs and Foreign MNCs with continuous involvement throughout the process was recorded as 42.85 % and 35.71 % which is just satisfactory and can be improved. It is revealed that there are factors related to HR personnel contribution towards all the stages of KM Initiation especially the initial Stage as it is observed very low in both the types of companies



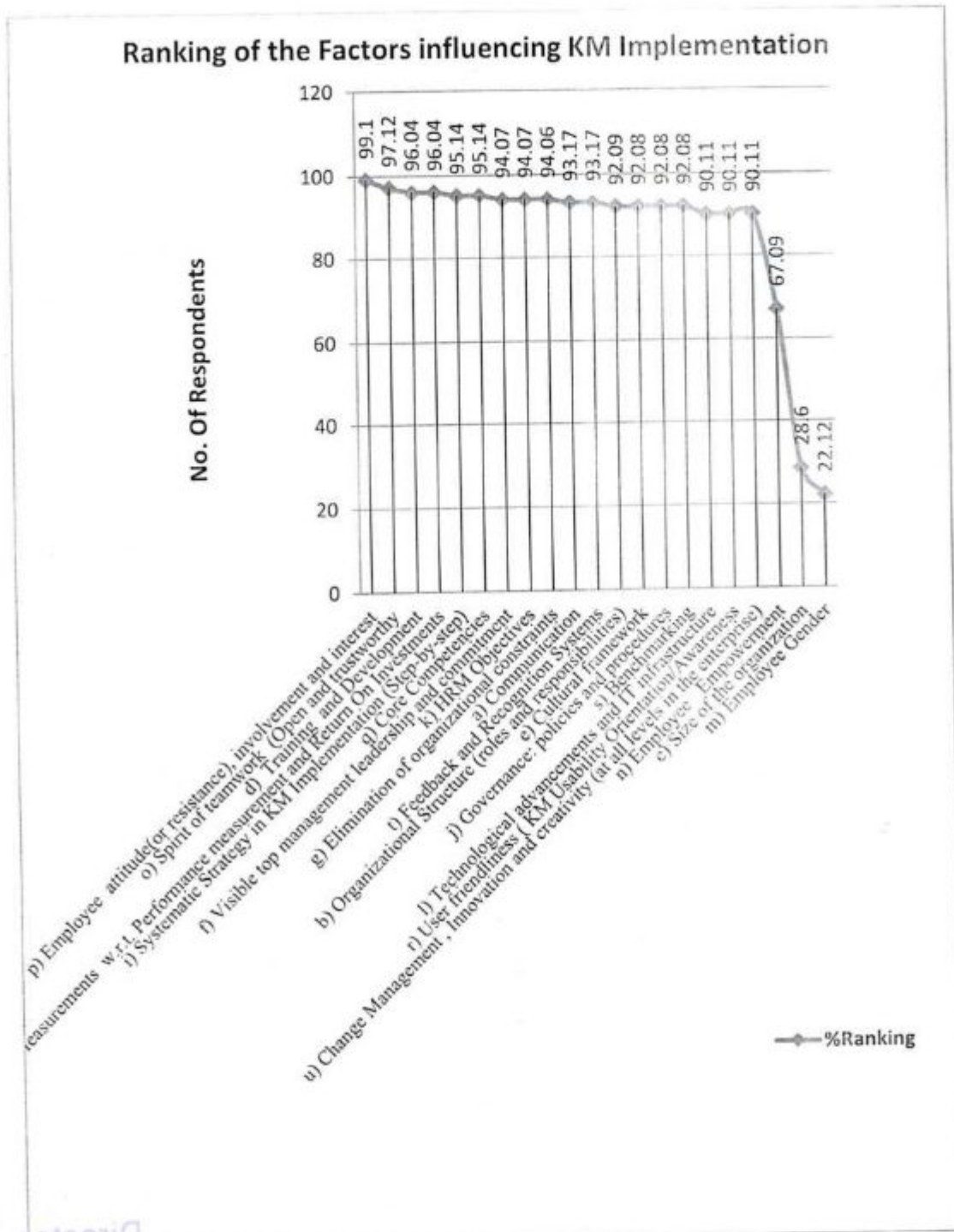


Graph No 1.2: HR personnels' Contribution towards formulation of KM: Stage wise-TypeOfCompany-wise

A very significant 99.10 % of the respondents have voted for "Employee attitude (or resistance), involvement and interest". "Spirit of teamwork" (Open and trustworthy) which is the next highest ranked with 97.12 % as depicted in Graph 1.3. It is observed that there are multiple challenges faced by HR personnel in both Indian&IndianMNCs and Foreign MNCs. A very significant 99.10 % of the respondents have voted for "Employee attitude (or resistance), involvement and interest". "Spirit of teamwork" (Open and trustworthy) which is the next highest ranked with 97.12 %. Major challenge faced by the HR department is Talent Management (95.12 %) followed by Leadership Development (94.6 %) and Change Management (90.10 %). It indicates that these are closely associated challenges with knowledge management area but as well indicates the awareness of the respondents about the area of EKM as satisfactory

  
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Graph 1.3: Identifying the factor(s) influencing the EKM implementation



  
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Graph No 1.4: Ranking of major Challenges faced by HR personnel in IT Industry

#### T-Test: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
@3.9	3	154.0000	29.86637	17.24336

#### One-Sample Test

Test Value = 0 , 95% Confidence Interval of the Difference						
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
@3.9	8.931	2	.012	154.00000	79.8078	228.1922

In context to the desired considerations and the available sample, in order to decide the level of involvement and contribution and with reference to the different stages of KM Implementation; the researcher has used "One Sample T- Test" to compare Means at 2 level of degree of freedom. In order of this observed 95 % of confidence interval of lower and upper difference (79 and 228) at 2-tailed significance.

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Challenges Identified	Not Imp	Some what Imp	Fairly Imp	Very Imp	Strongly Imp	Total respon.	Total Avg value	Rank
Change Management	0	0	15	72	165	252	17	1
Talent Management ; Employee Engagement	1	0	0	88	165	254	17	1
Organizational Development ; Corporate Re-organization	1	0	21	120	90	232	15	3
Leadership Development	0	0	9	112	125	246	16	2
Employee Retention	1	0	33	52	155	241	16	2
Compensation Management	1	0	45	128	40	214	14	4
Industrial Relations	2	0	63	104	35	204	14	4
Employee Welfare	2	0	42	136	30	210	14	4
Corporate Social responsibility	3	0	30	152	25	210	14	4

Table No.1.2: Distribution and ranking of major Challenges faced by HR personnel in IT Industry

### Statistical Tests: percentage values, Ranking, Karl-Pearson's Chi Square test

Application of EKM in HRD majorly leads to successful management of business challenges and the organizations make conscious effort towards the application of EKM in the organization while handling any strategic business problems or crucial business decisions. To validate this hypothesis 2 variables can be identified namely;

- 1) Variable 1 : Application of EKM
- 2) Variable 2: Successful management of business challenges

Karl-Pearson's Chi Square test helped to test the independence of the two variables.

H<sub>0</sub>: Variable 1 and Variable 2 have no association.

H<sub>1</sub>: There is some association between Variable 1 and Variable 2.

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Wherein the test result value obtained was 34.571a with  $df=1$ . The minimum expected cell frequency is 28.0. Which reveals that alternate hypothesis is accepted and null hypothesis is rejected at 1 D.F. at 5% level of significance.

To decide the factors influencing the application of KM considering the desired parameters, and available sample; the researcher has used "One sample T – Test" to compare Means at 20 level of degree of freedom. In order of this the observed 95 % confidence interval of the lower and upper difference (233 and 270) at 2- tailed significance. Therefore ranking was considered wherein "Employee attitude (or resistance), involvement and interest" scored the highest rank.

Based on the data and statistical tests the null hypothesis is rejected at significant level of freedom and Hypothesis "Application of EKM in HRD majorly leads to successful management of business challenges" the given hypothesis is accepted. The secondary data also support this hypothesis.

### Implication of the Study and Conclusion

The rationale behind the research study undertaken was to gain better understanding of EKM; as a strategic tool in support of enterprise transformation in the new competitive Era; especially in HRD in IT Sector. The IT industry is resource –oriented and intellectual-assets being the Human resource signify the mission of HRD; in context to the high turnover. Thus there evolves a challenge of sustaining the level of competence needed to manage this living –dynamic-data-repositories; which is the HR, to fulfil organization undertakings. This helps us infer that; there are challenges in application of EKM wherein HRD can contribute effectively to improve the EKM application.

It is imperative that the study undertaken has provided, wide focused insight into various factors influencing the application of EKM in IT companies. Employee's interest and team's spirit and Organization culture were the most vital aspects observed.

**Concluding Remarks:** In today's knowledge intensive, highly uncertain and dynamic business environment; role of HR is very much vital. It is closely associated with the employees and partners reflecting important influential role while implementation of Knowledge Management in enterprises in IT Sector. EKM was not tied into business processes and ways of working earlier, but this scenario is changing presently. With this transforming business scenarios; the multifaceted role played by HR personnel and its relevance in today's fast-paced technological advancements taking place especially in context to the IT sector; is very much critical and indispensable.

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## A pragmatic study to appreciate how HR Measures supports the Implementation of Enterprise Knowledge Management in IT Enterprises

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### Abstract

The current knowledge revolution that we are witnessing is having major influence on the way the work is being carried out and managed by the human resources in organisations across the globe. The proposed research paper focuses the HR Measures in particular, that supports the Enterprise Knowledge Management being implemented by overcoming the challenges faced by HRD. Further attempt is made to propose cross-case analysis of Indian Multinationals and foreign Multinationals on Indian soil where the EKM implementation is undertaken in IT sector. The paper adopts both quantitative and qualitative research methods based on the primary as well as secondary data collected during the study. In the paper it is as well put forth that in order to manage employees for competitive edge in the post-globalization era, human resource personnel must possess competencies with relevance of effective implementation of some innovative strategic HRM. For any business to become successful high-performing HRM practices and systematised EKM implementation enhances the overall purpose. As for the research implications, this paper may stimulate the process in the direction of elevating and aligning the role of HR with proficiency and innovative approach in HR practices and measures.

**Keywords:** Enterprise Knowledge Management (EKM), Human Resource Management (HRD), Human Resource Management (HRM) policies, Multinationals, HR Measures, IT (Information Technology) Sector

### Background

In the past couple of decades, numbers of experiments have been carried out in relatively prosperous organizations with an objective to yield strategic advantages of Knowledge Management (KM). Researchers have worked on possibilities of effective implementation of KM in organizations (Davenport and Prusak 1998, Davenport et al. 1998)<sup>[7]</sup>

Knowledge Management can be understood as a process of creating, capturing, storing, sharing & applying Knowledge. Knowledge embedded in human assets of any organization. Knowledge based systems and HRM practices in specific are seen contributing constructively towards the enterprise performance and gaining the competitive advantage. Newer and better paradigms of HRM are coming up with more innovative thought process building the strategic human assets which are expected to be agile. The traditional focus on managing people has been broadened to managing organizational capabilities, relationships, learning and knowledge. Banerjee<sup>[4]</sup> also believes that we must look beyond human capital to a more sustainable and holistic view of individuals; suggesting the term "sustainable human capital" that moves away from the traditional view of human capital.

The HR department ensures the smooth running of an enterprise. Most importantly by tracking and analyzing the promptness and work patterns of the workforce. Knowledge Management and Human Resource Management both are certainly having human touch being people-centric and making use of the knowledge. For successful businesses which demand high-performing HRM practices supporting the KM initiative, there are several challenges that are faced by the HRD for which HR Measures formulated addresses most of these challenges.

### I. Review of Literature in context to the study undertaken

Knowledge management enablers such as employee training, employee involvement, teamwork, employee empowerment, top management leadership and commitment, organizational constraints, information system infrastructure, performance measurement, egalitarian culture, benchmarking, and knowledge structures; that are critical to the success of a knowledge-based organization have been considered. Key Success Factors for Knowledge Management published in Master's Thesis by Kavindra Mathi, 2006<sup>[10]</sup> helped in getting a better understanding of how some factors are critical for the successful application of Knowledge Management (KM). Knowledge Management Systems, Models and Frameworks, in practice in selected IT organizations in and around Pune city were reviewed. The role played by different stakeholders was studied in order to study their involvement and contribution towards the application of Enterprise Knowledge Management with emphasis in HRD.

**Enterprise Knowledge Management (EKM)** as defined by Gartner is "a centrally guided KM program that supports multiple business objectives."

Enterprise Knowledge refers to business specific knowledge and not the generic knowledge which may be enterprise independent. Enterprise knowledge does have a specific pattern associated with that particular enterprise with which it is associated. EKM involves many facets of the information systems domain including technical (business processes, flow of information, etc.), organizational and social (policies, structures and work roles, etc.) and teleological (purposes and reasons) considerations. (Petricles and Vagelio, 1999)<sup>[15]</sup>

EKM for business unit, project or workgroup management; is all about building and maintaining a knowledge workspace that integrates the workplace environment, whether a central space or a remote and distributed virtual space; with business intelligence, competitive intelligence and human competencies. With uncertainties and risks in business ecosystem, it's a huge task to manage enterprise wide knowledge where employee turnover is observed highest. Thus IT firms may not find it realistic to rely on longtime employee knowledge to other in their routine practices. The changing business



environment especially in IT industry has made organizational knowledge a complex, critical factor of sustainable competitive advantage.

**Indian IT Sector linkage :** In 2005 India's share of global market for outsourced IT services stood 3.3 % which served nearly half of all Fortune 500 companies. Foreign MNCs arrived in India accounts about only quarter of its exports as compared with the actual Indian and Indian MNCs together. Multi-National firms use their Indian operations primarily as export platforms. Increasingly Multinationals are setting up shops in India to conduct sophisticated software development activities and as a captive source of R & D, utilizing India's pool of highly trained engineers.(BhatnagarSubhash;2006)<sup>[5]</sup>.

Indian IT's core competencies and strengths have attracted significant investment from major countries. The computer software and hardware sector in India attracted cumulative Foreign Direct Investment (FDI) inflow worth US\$ 44.91 billion between April 2000 and March 2020. ([www.ibef.org](http://www.ibef.org) ; January 07, 2019, Industry research)<sup>[16]</sup>. Government of India as well has taken steps to promote IT and ITeS sector in India ; may it be promotion of Start-up Hub , Digital India movement or enabling the efforts in Artificial Intelligence at National level by NITI Aayog , Indian IT arena has proven its capabilities in delivering both on-shore and off-shore services to global clients. We have been witnessing these movements are catalysing the growth on domestic revenues, while USA and Europe contribute more than 80% of the total IT-ITES export revenues.

**The Multinational linkage:** According to Business Dictionary, an enterprise, operating in several countries, but managed from one (home) county can be called as a Multinational corporation. The Indian multinationals seem to "represent a new breed of multinationals that build their competitive advantage in novel ways; multinational corporations that derive their advantage from service rather than technological innovations and manufacturing MNCs that straddle a low-cost and medium technology position"(Jonsson, 2008)<sup>[9]</sup>. Three levels of knowledge transfer can be identified, and each level expands the dimensions of the knowledge related characteristics of multinational enterprises. These levels are mentioned as: individual and group level, organization level and global level. At all these levels the in the MNC environment, the cultural and functional similarity or diversity does affect the knowledge processes and knowledge sharing.

**The HRD linkage:** Globalization has re-energized the vital environmental factors shaping the work of HRD professionals in local as well as global software companies. In such a scenario these organizations look to HR professionals for better innovative and enriching advice and support. As a consequence HRD face a number of traditional as well as new challenges. It would be imperative to consider that HRD should now focus more strongly on maintaining and developing knowledge workers smartly and manage knowledge innovatively. On strategic level it would as well indicate that the HRD should be more creative and agile for designing better organizational structure applicable to the organization.

In these contexts application of EKM is critical at the same time it becomes very much essential; with HR personnel playing a vital role became an imperative facet for the research study.

## II. Research Design

**Research Problem Description:** In IT sector today it has been observed that EKM as a methodology has been utilized mostly in the actual software engineering or process like CMM (Capability Maturity Model), etc. In context to the HRD in IT sector; relatively less research has been conducted in examining the existence and impact of the application of EKM.

It can be proposed that EKM provides a disciplined approach for HR personnel to manage the intellectual assets of the IT enterprise with relevant HR measures and reinforce the business process.

**Research Scope and Objectives:** The competitive business scenario, the constant ups and downs in the market, impacts the enterprises around the globe and directs to undergo massive changes. In whatever situations arise; enterprises cannot afford dips in productivity, which results from the manual unstructured and inefficient way to access the multiple repositories of information either stored or implicit. The researcher has considered Knowledge Management implementation as systematic effort to help the enterprise transform for new economy, wherein the backbone of HR policies, HR Measures and best practices assist to withstand the journey of transformation.

The scope of this research paper is to appreciate the existing Knowledge Management Systems that facilitate the business processes in organization and as well examine the challenges faced and most importantly the applicable HR measures that help to cope up with the challenges faced by any HRD.

The main objective of the research study undertaken was; to conduct a Comparative analysis of the Application of EKM in HRD in the selected companies in IT Sector in and around Pune (Maharashtra State-India). For the scope of this paper the objective is limited to: To study the impact of application of EKM in HRD in IT companies.

**III. Data Collection Methods:** Qualitative and Quantitative Methods have been followed for this study. The modes adopted for collecting data in order to achieve the research objectives are primary and secondary sources.

Multiple data collection tools were used namely;

- i) Structured Questionnaire, which was designed based on the objectives and the Hypotheses of the research study.
- ii) Planned Interview with the Mid-senior level employees especially HR personnel.
- iii) Discussion with the senior Managerial employee, employees especially from the HR Forum, KM kind of Forum, Talent Group, etc.

Secondary Data collected by the researcher by visiting several Libraries. Study of published sources includes books, monographs, journals, research papers and research articles, conference proceedings, press clippings, company documents, project reports, published thesis and Information on the internet and websites. Data collection including the pilot study was carried out from June 2009 till March 2012 for various respondents in the selected IT companies. Supportive publications referred throughout the study that still continues whenever the subject area is being in deliberation.



**IV. Data Analysis, interpretation and Findings**

**Data Sampling:** The selection of the sample units was planned based on criteria such as :

- i) The selected companies in IT sector located in and around Pune have been considered.
  - ii) The Enterprises having annual turnover of around five crores of INR and above, and capital investment of more than 50 lakh INR have been chosen
  - iii) These selected IT companies were having proper separate HR department.
- Survey Method is used for this research study. Interview and discussions were as well used as supportive techniques for exploring data.

**Sampling Design:**

**Stage 1: Multi-Stage Sampling Technique (Purposive Convenience Technique) :** Purposive Conventional Sampling Technique has been followed in the research survey. **Stage 2: Stratified Disproportional Sampling Technique** was applied based on the types of the companies-namely; A) Indian and Indian MNCs; and B) Foreign MNCs.

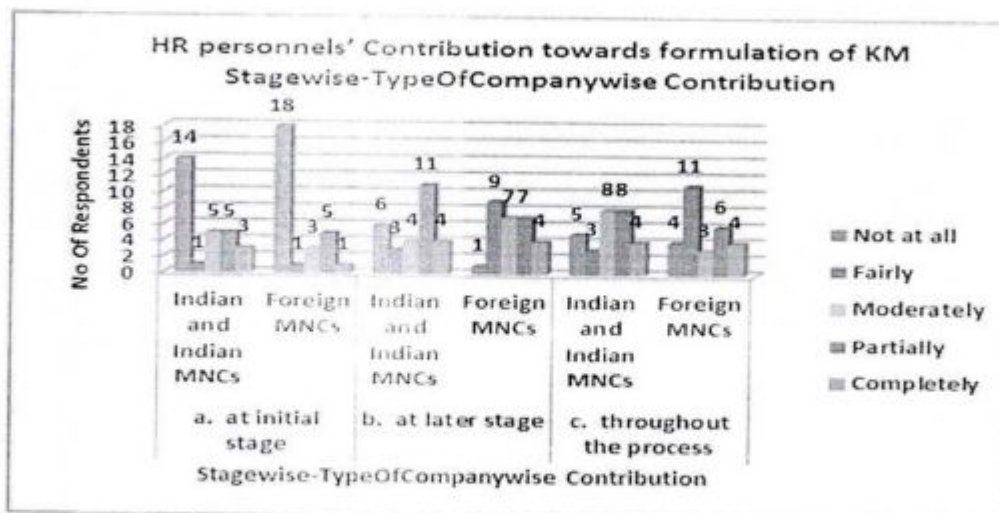
The researcher has selected, more than 7 % of the sample; from the population of IT Companies in and around Pune. Based on the 2 main lists obtained from MCCIA (Maharashtra Chamber of Commerce and Industrial Association) and fundoodata.com, 75 companies were chosen which fulfilled the criteria framed for the sample selection. The given table no.1.1 gives the total number of companies considered in Pune all together including both MNC and Non MNC.

Source Organization	No. of MNC Companies	No. of Indian Companies	Total Companies
MCCIA	98	932	1030
Fundoodata.com	108	1887	1995
NASSCOM(supportivelist)	90	901	991

Table No: 1.1: Total IT companies in Pune in the last decade taken for study

Based on the addresses of the companies whose base address or branch address fall in and around Pune were short listed, contact details of around 100 companies were selected and communicated. Validity and completeness of Questionnaire responses gave 56 respondents. There were 28 responses drawn from each type of companies. Apart from this, 12 respondents were interacted with for Interviewing and discussion. This interview data collected has been used for data analysis and interpretation. The data is analysed using parameters like Knowledge sharing initiatives, KM Practices, colleagues' contribution and Employees initiative, scope and responsibilities of HR, primary role of HR Department, Association with KM, HR challenges, Distribution of respondents was done based on various criteria such as: Type of Organization, major Domain and annual turnover. The major domains selected for the sample belong to Software Development in 64.62 % of Indian & Indian MNC and 75% of Foreign MNCs. Other domains namely Telecommunication, Testing, ERP/SAP forms a small number of the total sample in each type of company. In the context of the mentioned objectives, following hypothesis was framed;

- H<sup>1</sup>: "Application of EKM in HRD majorly leads to successful management of business challenges";
- H<sup>0</sup>: Application of EKM has no impact on managing the business challenges.



Graph No 1.2: HR personnels' Contribution towards formulation of KM: Stage-wise-TypeOfCompany-wise





T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
@3.9	3	154.0000	29.86637	17.24336

One-Sample Test

Test Value = 0 , 95% Confidence Interval of the Difference						
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
@3.9	8.931	2	.012	154.00000	79.8078	228.1922

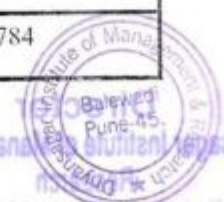
In context to the desired considerations and the available sample, in order to decide the level of involvement and contribution and with reference to the different stages of KM Implementation; the researcher has used "One Sample T- Test" to compare Means at 2 level of degree of freedom. In order of this observed 95 % of confidence interval of lower and upper difference (79 and 228) at 2-tailed significance

It is observed that the involvement of both Indian&IndianMNCs and Foreign MNCs shows low percentage 28.57% and 21.42% respectively, in theinitial stage; which indicates the need of more attention during the initiation of any new KM drive in the organization that would certainly increase the success rate and impact of KM implementation.

Moreover it can be observed that the rate of involvement of the HR personnel in formulation and execution of KM Initiative is significant in Indian companies especially in the later stage with 53.57% as compared to that in Foreign MNCs 39.28%. The contribution level of Indian&IndianMNCs and Foreign MNCs with continuous involvement throughout the process was recorded as 42.85 % and 35.71 % which is just satisfactory and can be improved.It is revealed that there are factors related to HR personnel contribution towards all the stages of KM Initiation especially the initial Stage as it is observed very low in both the types of companies.

T-TestOne-Sample Statistics

N	Mean	Std. Deviation	Std. Error Mean
9	223.8889	17.93352	5.97784

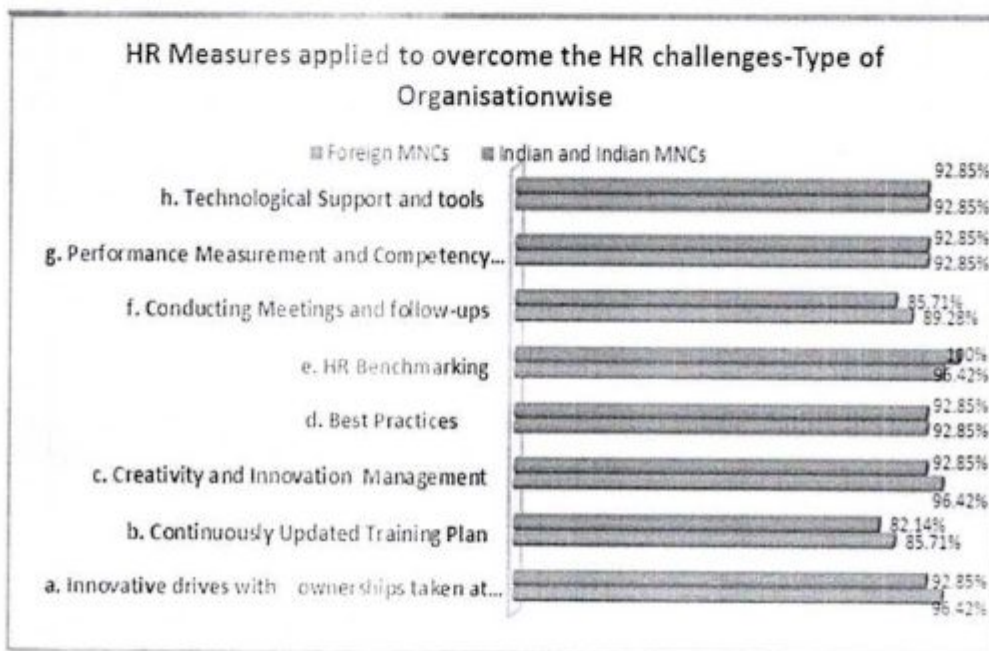




**One-Sample Test**

Test Value = 0			
T	Df	Sig. (2-tailed)	Mean Difference

It is observed that there are multiple challenges faced by HR personnel in both Indian&IndianMNCs and Foreign MNCs. From the obtained data it is seen that the major challenge faced by the HR department is Talent Management (95.12 %) followed by Leadership Development (94.6 %) and Change Management (90.10 %).To face and overcome these challenges the HRD would certainly need a strong support from the EKM that would not only manage its current development strategies but as well enhance them from future perspective.



Graph No.1.4 Comparative study of HR Measures applied to overcome the HR challenges

The least scored challenge observed was Industrial relations (58.9 %). Although the score is not too low so as to ignore; but it is relevant. The highest scored options such as Talent Management and Change Management not only indicates that these are closely associated challenges with knowledge management area but as well indicates the awareness of the respondents about the area of EKM as satisfactory.

**T-Test: One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
HRMeasures_to_overcome_HRchallenges	8	250.1250	5.69304	2.01279

One-Sample Test

HRMeasures_to_overcome_HRchallenges	Test Value = 0			
	t	df	Sig. (2-tailed)	Mean Difference
	124.268	7	.000	250.12500

One-Sample Test

HRMeasures_to_overcome_HRchallenges	Test Value = 0	
	95% Confidence Interval of the Difference	
	Lower	Upper
	245.3655	254.8845

To decide the significant HR Measure applied to overcome the given HR Challenges, based on the given parameters and the available sample; the researcher has used "One sample T – Test" to compare Means at 4 level of degree of freedom.

In order of this, the observed 95 % confidence interval of the lower and upper difference (245.36 and 254.88) at 2- tailed significance. Therefore ranking is considered for the observed parameters.

There exist strong KM systems in the organization actively working, and they have influenced the business systems and functions significantly with over and above 90 % in both Indian&IndianMNCs and Foreign MNCs, in all the given aspects of the achievements.

These have a very **positive impact** in achieving the objectives of the company and the individuals as well.

A very significant 99.10 % of the respondents have voted for "Employee attitude (or resistance), involvement and interest". "Spirit of teamwork" (Open and trustworthy) which is the next highest ranked with 97.12 %. Both these attribute reflect important EKM characteristics.

Major challenge faced by the HR department is Talent Management (95.12 %) followed by Leadership Development (94.6 %) and Change Management (90.10 %). Both these closely relate with EKM. HR Measures being implemented by HRD in order to face the HR Challenges, wherein HR Benchmarking is seen as the highest ranked HR Measure in the Foreign MNCs (100%) and that of Indian&IndianMNCs apart from HR Benchmarking (96.42%) other Measure are Innovative drives with ownerships taken at department level (96.42 %) and Creativity and Innovation Management (96.42 %).

There are several types of trainings organized in the companies, wherein it is observed that in Indian&IndianMNCs ( 85.71 %) of the respondents have opted for Regular Induction which is most significant of all, and in Foreign MNCs preference is given for the project-wise training (82.14%). It further indicated through ranking that the impact of training on the overall effectiveness and success rate of EKM Implementation in IT companies.

Apparent benefits perceived through application of EKM, revealed that from the given six benefits 100 % of the respondents opted for the Transparency of knowledge potential and gaps and Knowledge-based value creation processes;indicatingthe EKM worthiness and relevance.

EKM encourages the process of achieving the defined goals at organization level and individual level qualitatively with above 90 % in both the type of companies avery positive feedback being recorded.

From the given apparent benefits of application of EKM 100 % of the respondents opted for the Transparency of knowledge potential and gaps and Knowledge-based value creation processes; which clearly states the EKM worthiness and relevance.



There is significant positive percentage (82.1%) where there exists knowledge sharing agreement with some external organizations like Microsoft, Oracle, SAP etc. This strongly indicates that there are good number of enterprises where the knowledge-based products are utilized to defend with the dynamics of business

#### Statistical Tests: percentage values, Ranking, Karl-Pearson's Chi Square test

Application of EKM in HRD majorly leads to successful management of business challenges and the organizations make conscious effort towards the application of EKM in the organization while handling any strategic business problems or crucial business decisions. To validate this hypothesis 2 variables can be identified namely:

- 1) Variable 1 : Application of EKM
- 2) Variable 2: Successful management of business challenges

Karl-Pearson's Chi Square test helped to test the independence of the two variables.

$H_0$ : Variable 1 and Variable 2 have no association.

$H_1$ : There is some association between Variable 1 and Variable 2.

Wherein the test result value obtained was 34.571a with  $df=1$ . The minimum expected cell frequency is 28.0. Which reveals that alternate hypothesis is accepted and null hypothesis is rejected at 1 D.F. at 5% level of significance.

To decide the factors influencing the application of KM considering the desired parameters, and available sample; the researcher has used "One sample T - Test" to compare Means at 20 level of degree of freedom. In order of this the observed 95 % confidence interval of the lower and upper difference (233 and 270) at 2- tailed significance. Therefore ranking was considered wherein "Employee attitude (or resistance), involvement and interest" scored the highest rank.

Inference: Based on the data and statistical tests the null hypothesis is rejected at significant level of freedom and Hypothesis "Application of EKM in HRD majorly leads to successful management of business challenges" the given hypothesis is accepted. The secondary data also support this hypothesis.

#### V. Inferences of the Study and Conclusion

In the research work carried out it was revealed that there exist strong KM systems in the organization actively working. Moreover, they have influenced the business systems and functions significantly in both; Indian MNCs and Foreign MNCs. In all the given aspects of the accomplishments. Multiple Challenges are faced by these organisations by the HRD. The IT industry is resource-oriented and intellectual-assets being the Human resource signify the mission of HRD; in context to the high turnover. To overcome the business challenges the HR Measures needed to be followed, in close relationship with the application and awareness of EKM in the IT companies. HR personnel must possess competencies relevant for effective implementation of such innovative strategic HRM policies and innovative methodologies. In this context; it is recognized that;

- application of EKM needs to be carried out in a step-by-step mechanism
- Almost all the key business process in both the type of IT companies showed close association of EKM.
- The EKM is a Methodology identifies preserves and manages critical and voluminous company data, making it strategically useful in managing the dynamic business challenges.
- Newer and more innovative methodologies can strengthen the task of educating and enlightening the employees.

#### Concluding Remarks:

Knowledge has power not only for wealth creation, but is recognized as a key success element in gaining competitive advantage. Innovative idea generation and use of latest technologies need to be utilized for better EKM implementation for which relevant measures need to be a supportive base. For such a professional approach, well-planned EKM and its support structures play a vital and inevitable role for any enterprise whether small scale or large scale. With multi-skilled technosavy HR Managers and well-built knowledge-based system coupled with the knowledge audit process, success of companies in the IT sector would be certainly qualitatively intensified. The researcher has designed and contributed EKM Model and EKM Implementation Framework that can be evaluated and applied at Organization level, Department level and Individual level with little customization as applicable to the IT organization. Governance of EKM can become a major endowment for EKM with proper strategic control and Quality check under the authority of the enterprises. Role of HR is closely associated with the employees and partners reflecting positive impact of application of EKM in HRD. A successful implementation of EKM with applicable HR measures would overcome the challenges at workplace, but it would as well facilitate quick, effective decisions in support of enterprise business objectives.

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# FOSTERING ORGANIZATIONAL EXCELLENCE IN KM ENVIRONMENT: INNOVATIVE PERSPECTIVE FOR SUSTAINABLE GROWTH PATH

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## ABSTRACT

*In the world today dynamic Knowledge is the key ingredient for the success of any organization in the new economy. We are in an age where business is just not measured in terms of historical performances alone, but also in terms of how utilizes and manages the knowledge and the intellectual capital. Furthermore, it has been now agreed in the known universe that the human side of Knowledge Management (KM) is more difficult to manage than the technical side. It is definitely the knowledge workers who make knowledge based systems a success and radically leverage the companies' competitive edge.*

*The proposed research paper deliberates on issues concerned with soft side of KM environment and culture. The crux of effective knowledge based system implementation hinges upon two vital aspects – the people and the culture. Technology alone may not help to meet the challenges in the ever changing environment in an organization and environment cannot be bypassed for that matter. In the sense it focuses the manner in which the people and technology that the organization utilizes, in order to get a energetic leap for achieving organizational excellence. We have considered KM environment as being an approach as well as a discipline to improve the overall organizational performance. Certain issues like the technological implications, understanding of the KM essence by the people leading our group has been briefly*

  
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*discussed. In this context one can view these issues right from KM initiations till the implementation for the fostering its culture in any organization.*

**Key words:** Knowledge Management, Organization Excellence, Competitive Edge, KMS

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## 1. INTRODUCTION

The impact of Information Technology (IT) has revived, simply the mode of the traditional business environment, by enriching and leveraging the content and its context, with respect to the dynamic business environment. As economies move to the information age and post industrial era, information and knowledge become important, if not the most important resources, in organizations (Bell, 1976) Knowledge and its applications are regarded as the primary source of competitive advantage (Conner and Prahalad.1996). Knowledge has become the life blood of the organization, that constitutes the processing of internally generated information much concerned with the management and control of any business as well as externally sourced information contributing to vital function of an organization for example, the planning and strategic decision making for that matter. Thus, Knowledge is key ingredient for the success of any organization in the new economy, that too in the ever changing nature of the environment. We are now in the age, where business is just not measured in terms of the historical performance using the convention methodologies, but also in term of how the business make efficient use of the organizational asset not subverting the knowledge and the intellectual capital There are enormous resources utilized into business processes in the organization. Sharing of these resources considering them as wealth of organization and disseminating them towards the desired entity or in order to get effective outcome is very much essential. By amplifying the existing treasure of knowledge and strengthening the organization and its processes at all its levels with strong recent technological support will surely enable the rise of organizational excellence

## 2. THE KM ENVIRONMENT

The awareness and importance of the information and knowledge, followed by a constant search for ways to manage them and disseminate them led to the birth of the revolutionary concept of Knowledge Management in 1990s. Organizations have always utilized Knowledge and technology for its existence It was the opening point in1991 where actually the KM arena took off. At this instance the effort represented early attempt to provide a methodology to determine the value of knowledge to any business. The Systematic study of KM as a management and scientific discipline began in the year 1994, with the annual report of leading Swedish Financial Service firm, Skandia, who attempt to quantify the value of the company's intellectual capital. Knowledge gained includes attention when it was identified as a basis for and driver of our post industrial economy. It was well understood that KM is the next paradigm shift in computing following the next evolution of data processing (1945-1965) and Informational management (1966 1995). As of now the organizations have realized that focusing on knowledge area is not some trend or a fad but it is an actual business necessity. Yet according to a white paper on content engineering (KM, October 2003, page 4), many applications in the business have become the "Data Island's" in the sea of Web connectivity and not enough is done to extract the value that lies in them. Successful KM requires systems for the effective management of

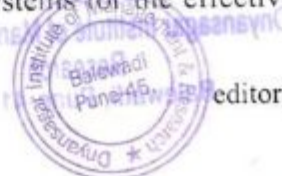
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knowledge repositories and to cultivate organizational learning. KM is fundamentally the management of the corporate knowledge and the intellectual assets that can enhance a range of organizational performance characteristics and add value by enabling in an enterprise to act more intelligently. "KM caters to the critical issues of organizational adaptation, survival and competence in face of increasingly discontinuous environmental changes. Essentially, it embodies organizational processing capacity of information technologies and the creative and innovative capability of human beings". (Dr Yogesh Malhotra, 1997, Founding Chairman and CKO of Brint Institute). KM concern with the exploitation and development of knowledge asset of an organization's objective, and here the authors means the knowledge to be managed include the explicit and tacit or implicit knowledge. KM enforces all, the processes associated with the identification, storing and creation of actionable information.

As defined by Oracle Magazine (1998), "KM promotes the integrated approach to identifying, capturing, retrieving, sharing and evaluating enterprises information assets. These information assets may include database, documents, policies, procedures as well as the uncaptured tacit expertise and experience stored in individual "heads". In this context organization face dilemma to elaborate the difference between information and knowledge and the transformation process leading to wisdom.

As describe by Koulopoulos –et-al-1990, Knowledge can be consider in two ways Tacit and Explicit. Where Explicit knowledge is packaged, easily codified, communicable, transferable, personal, context specific, different to formalize. Tacit knowledge is personal, context specific, different to communicate, more different to transfer .Knowledge has been categorized differently by different people in the literature. One such division can be highlighted as Tacit and Explicit.

*Explicit* knowledge can be articulate in formal language including grammatical statements, mathematical expression, manual and so forth ( Nonaka ans Takanchi 1995) Explicit is about why things work and its rational sense.

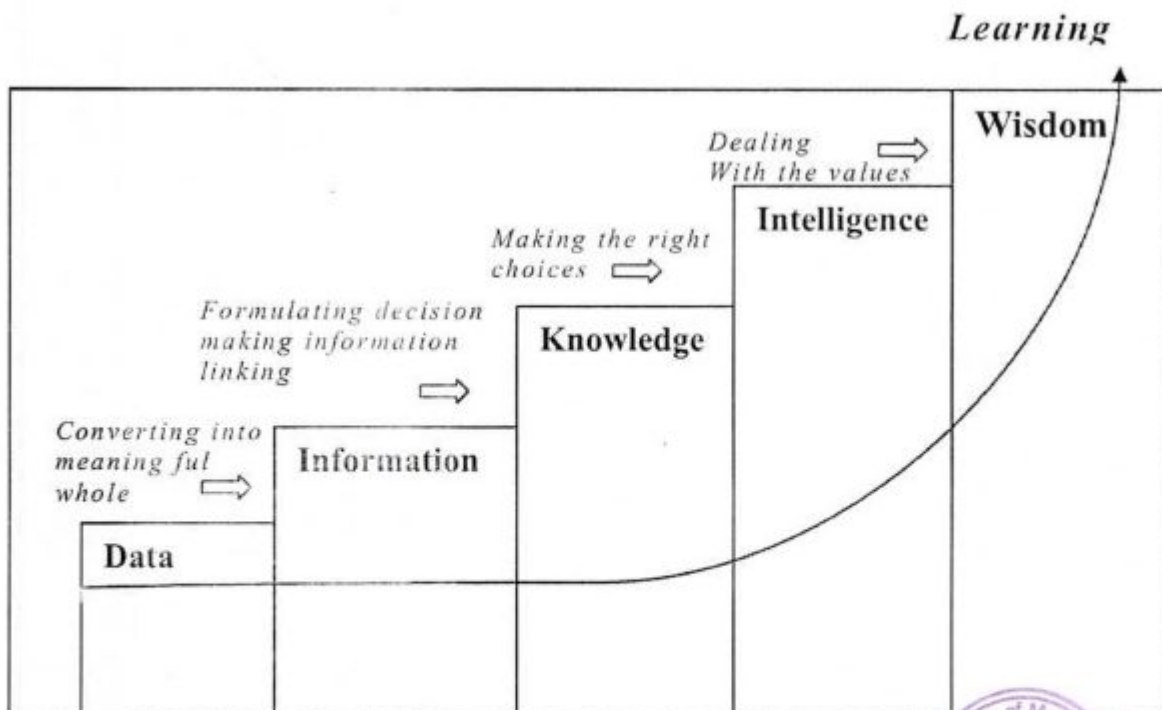


Figure 1 Evolution of knowledge leading to wisdom. (Source: Effective Executive, April 2003)

*Tacit* knowledge on the other hand is an entity that is difficult both to express and to define. The literature ( Nonaka and Takanchi 1995) defines tacit knowledge as attitudes , intuition uncodified routines etc . Tacit knowledge is about what things work. Thus for explicit knowledge it involves systematic approach to organize knowledge making it available and disseminating it. The trickier challenge is to manage tacit knowledge, pertaining directly to the knower of management. This challenge inherent with tacit knowledge is to figure out how to recognize, generates, share and manage it.

Knowledge is embedded in ever work processes and it exists in all core function of an organization as well as in its system and infrastructure. There is a transformation process explication that is to be known and understood. It is continuous process of conversion of tacit into explicit knowledge form for the constant generation of knowledge. Moreover this knowledge when focused as a process specific can be further refined and called as an additive and substituted knowledge.

As in the process of moving from existing knowledge base to a target knowledge base it may be necessary to transform and redistribute knowledge that is already within the organization or acquiring a new knowledge from the environment or invent totally a brand new knowledge. Such a new knowledge from the existing base of a project team and therefore is categories as either additive or substituted knowledge (Hall and Andriani , 2002) . The substitution of old knowledge with different new knowledge is describe by Nooteboom ,1996 , as a process of discontinuous learning , a process of learning to do better things opposed to learning to do things better.

### **3. ORGANISATION EXCELLENCE IN THE VOLATILE BUSINESS ENVIRONMENT**

Today the constant pressure to grow and fulfill the needs of the stakeholders in a continuous changing and uncertain environment presents a formidable challenge for every, to capitalize on every opportunity and to embrace continuous improvement and innovation at all the levels of the organization . In this context, the organizational knowledge is recognized globally as a significant source of competitive advantages. Due to information revolution , the possession of such information has ceased to provide the requisite competitive advantages as it used to in the not-so-far past.( Archana Shukla , R Shrinivasan , 2002) The emerging business environment is characterized by the following five forces :-

#### **3.1 Speed**

The pace in which organization picks up clues from the environment (both opportunities and threats), applies this knowledge capitalize on it and creates value out of this application of knowledge will determine its competitiveness.

#### **3.2 Smart Product and service Industry**

Customer revolution has made more demanding in terms of quality, cost as well as customization and services. To cater such demand organization should processes adequate knowledge of the domain of the product and the customer's demand pattern.

#### **3.3 Globalization**

Opening of new markets have paved the way for global sourcing of product. Core competence are identified and focused and the non-core are outsource at geographical different location. This has resulted in expanding the horizons of market across the domestic market and entered the transactional organization. In order to survive in such changed market scenario new standards and practices are adopted to complete effectively.



### 3.4 Shortening Product Life Cycle

As product and services become easier to imitate by competitor, its life cycle shortens significantly. Also due to reverse engineering better feature a better price ratio are built. Thus the market matures fast and customer learning to make a choice. Hence in such cases organization need to continuously innovate.

### 3.5 Network Intensity

Organization and customer are connected globally due to which voluminous information is accessible everywhere. Internet as an interface has facilitates the organization and their clients business in an effective manner. The information and communication technology supports strongly the organizations to generate varied pool of information and capture it from several sources spread across world wide.

Thus, in such fast changing knowledge intensive and dynamic environment, organization adopt newer effective strategies like practicing entrepreneurship, value driven leadership, currently emphasizing the core competitions, highly customer oriented as well as profuse alert toward the need of the associates. Earlier before liberalization of Indian economy and certain related charges, organization could afford to follow either of the strategies which is difficult today. With the rapidly changing environment organization do generate lot of experience and develop competences over a long period of time. They leverage on competencies by weaning them in their core processes there by institutionalizing and facilitating organization to achieve desire level of efficiency but external environment changes these processes and routine also are required to be redefined and re institutionalized. ( Leonard Barton , 1995).

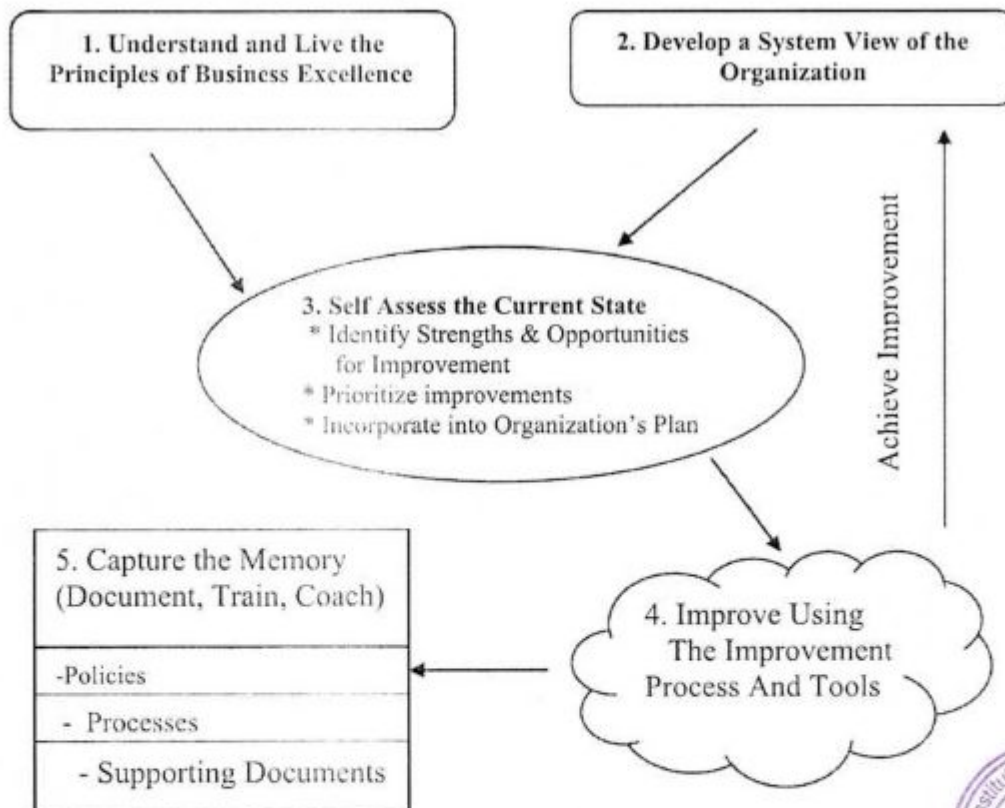


Figure 3 Drivers of Organizational Excellence Source: consulting @sai\_global.com

There are several drivers identified to achieve organizational excellence leading to sustainable business improvement. Creating organization wide commitment and acquisition of

continuous improvement tools and techniques is just one way to achieve the organization; excellence.

Achieving organizational excellence through such modules are effective to reap several benefits such as reflection in improved services, raised customer satisfaction, improved operational and organizational performance that will obviously boost employees moral. Thus in today's business world, the heartbeat of a firm depends on constant refurbishing systems to remain competitive Business environment is constantly evolving at an alarming speed. To be successful, business firm must redefine and questioned their current knowledge store in a corporative database, while creating a new practice to fit the business environment. As a reaction to the questionable benefits from certain practices like downsizing, business process re-engineering etc in 1980-90., KM surfaced as suitable steps in addressing the competition in a hard – to- predict environments. (Elias Awad and Hassan Ghaziri, 2004). Every process to gain the organizational excellence it is to be carried out at individual, group or organizational level.

- *Individual level* :- Persons understanding becomes the first foundation of original knowledge .
- *Group level*:- Sharing of individual knowledge with other people in group generates new knowledge
- *Organizational level*:- The group organization learning process are those by which the groups in the organization interact and acquire other resources required to put their knowledge into action and there by convert group knowledge into improved dimension of organizational excellence. At all the layer of organizational structure, above mention levels of the knowledge help in pursuing organizational goals as well as actionable plan to achieve them can be develop and coordinated efficiently (Subhankar Pandey and Anindia Rai, 2003).

#### 4. UNDERSTANDING TECHNOLOGICAL FACE OF KM ENVIRONMENT

Almost all the organization today has implemented newer and better IT system as well as they has developed a new information management practices. .But real world competitive advantage is far more likely to result from the compounding of many small gains and powerful KM based IT approach can be prove to fertile foundation in that direction.

Knowledge Management environment be supposed to be understood as a set of processes that seeks to change the organizational present pattern of knowledge processing to enhance both business process and its knowledge outcomes. This implies that KM doesn't directly manage knowledge outcome, but only impact process, which is through impact outcome. For example one change the rules affecting the knowledge production, the quality of knowledge claims may improve, or if a KM intervention supplies a new search technology based on semantic analysis of knowledge base, that may result in improvement in the quality of sales forecasting models. In this view all business process involved creation, dissemination, renewal and application of knowledge towards organizational sustenance. Most of the people has original tinkering ability of problem solving but routine activities make it somewhat difficult to concentrate on the creative phase of problem. This situation can be improved in IT environment because IT provide us knowledge base system retrieval system ,interactive function solution toward desire feasible solution , function to communicate towards the knowledge workers activity to the appropriate people at appropriate time with the help technology such as internet and intranet. So to leverage organizational excellence there is a need to drive the performances through creation of organization-wide commitment and the acquisition of continuous improvement



tools and technology that are to be utilized. KMS facilitates KM by ensuring the knowledge flow from the persons who know to the persons who need to know throughout the organization, while knowledge enhance and grows during the process. It is to be understood that KM is more of a methodology applied to the business practices that technology or product. It is multidisciplinary and thus draw on the aspect of science , interpersonal communication , organizational learning, cognitive science , motivation , training and publishing and also business process analysis .KM tools are technologies broadly defined which ensure and enable knowledge generation , codification and transfer . These tools could be information architecture tools, technical architecture tools, application architecture tools .

- *Information architecture tools*:- Includes a new language category and metaphors for identifying and accounting for skills and companies ,
- *Technical Architecture Tools*:- which is more social like that of internet as a tool.
- *Application architecture tools* . :- which is oriented towards problem solving and representation rather than output and transaction.

A decision is to be taken about setting up architecture by formulizing the implementing structures, crating subsystem to manage the knowledge cycle , augmenting the technology infra structure to facilitate the system and content management. A wide spectrum of KM tools is extensively available and used to cater the need of various business processes –

*Web-based IT tools*:- offer the powerful platform tools supporting all stages of KM implementation . It is an interactive medium providing reach communication between an user immaterial of the geographical location as well as equipment. The interaction may be in synchronous or asynchronous mode

*Traditional Database Tools*:-These tools capture knowledge into the data base and ensure that the content is up-to-date .The analysis of data from the database leads to new knowledge creation.

*Process Modeling ad Management Tools*:-These tools encodes considerable knowledge of every business process more over they assist in managing the processes as well as managing the knowledge generated within the process.

*Workflow Management Tools*:-These tools has grown out of traditional flow charting tools, moreover they also allowed the specification of the movement of documents in information processes. Workflow management tools are used to implement and manage business processes

*Enterprise resource management Tools*:- These tools are been develop to provide all the modeling capabilities of typical ERP System (Enterprise Resource Planning) Along with explicit representation of the organizational and environmental knowledge.

*Agent Tools*:- These tools rely on agencies , relatively autonomous program that can perform verity of task, These agents are provided with specifications and they search web or the databases to give the result.

*Search Engine Navigation tools and portals*:- the search engines provide automatic text search while others also readout uninformative hits . This search engine has become knowledge navigator. Users are provided support as they navigate through knowledge domain in order to locate knowledge.

*Collaboration tools*:- Unable individual work collectively on a specific problems, by pooling individual knowledge

*Virtual Reality*:- These tools provide environment for collaboration through interactive model building and analysis. It also provide active laboratory for investigating, representing, refining and sharing knowledge.





KM technology could be called as "Know-ware" such as Decision Suit , Win Cite , Knowledge Share , Introspect etc . IBM , Informix , Oracle have introduced variants on universal database. There could be ten strategies identified for successful KM implementation namely;

- Establishing a KM Methodology: KM Methodology follows seven steps
  - Problem identification
  - Prepare to face the change
  - Formation of knowledge management team.
  - Mapping out the knowledge (of the person who posses and one who desires)
  - Continuous feedback Mechanism
  - Define building blocks for KM system consisting of structure or frame work for knowledge repository, knowledge retrieval system etc
  - Appropriate integration of existing information system
- Designate a point person (CKO: Chief Knowledge Officers)
- Empower Knowledge Worker (KW)
- Management Customer Centric Knowledge
- Manage core competence
- Fosters collaboration and innovation
- Learning from the best practices
- Extend knowledge Sourcing
- Interconnect communities of expertise (Internal /External)
- Report the major value of knowledge asset

Executing these ten strategic steps could certainly enhance the effectiveness of KM approach. Technology prospective could be consider as the driver of knowledge Management initiation acting as strong support to the efforts of human traits and capabilities , coupled with organizational goals .

## 5. THE PEOPLE PERSPECTIVE

KM is captivating area wherein it involves concepts ranging from a culture that promotes discernable sharing of knowledge and seamless collaboration to technologies that capture knowledge and help people to work together. The people in the system could be obviously have to adhere to the policies, procedures and use tools to bring in a synergistic effect .Moreover the cultural impact is also is of concern as at the same point of time it is observed that the policies gradually dictates a culture. Mot of the people have the original thinking ability to problem solving but routine activities make it difficult to concentrate on the creative phase of problem solving. This situation can be boosted giving a IT support as IT provides a favorable platform for KM activities to communicate the right knowledge to the right person at right time. Here on should note that the basic goal of the technology is to serve organizational memory and create a working environment.

In a typical KM environment, manager focuses on operational excellence where they work as facilitators than as supervisors. Their focus is on future developing strategies and sharing vision with effective communication with knowledge workers. Since 1960s to 2000 the role of the KW has changed as organisation have also changing dramatically with the changing pace of the time machine as well in response of the dynamic nature of the environment of the organisation. A classical KW transforms business and personal experience into knowledge



through capturing, assessing, applying, sharing and disseminating it within the organisation. He uses IT in conducting the routines of the business and he does have a considerable impact on the efficiency and productivity of the job and the work processes (Elias Awad, 1996). A key personnel is the Chief Knowledge Officer (CKO) who should possess strong interpersonal and technical skill sets. He is also expected to be well versed with the business practices and the idea of information that is under processed and its transformation into wealth of knowledge.

An effective KM environments demand system managing repositories and to cultivate organizational learning. Corporate knowledge base and intellectual assets if managed efficiently enhances a range of organizational performance characteristics and add value by enabling in an enterprise to act as a central warehouse that stores organizational knowledge namely, corporate details, product/service details, industry/competitor details, customer history, business partners details, etc.

Organizational knowledge can as well be agreed as the ability of people and organisation to understand and act effectively at different levels of the organisation to achieve excellence and is worth-while to know the sources of the same. These are:

*Knowledge in processes*-knowledge embedded in procedure, and it filter out the tacit knowledge of the human expertise.

*Knowledge in People* - The intellectual capital constitutes nearly 90% of the organizational knowledge- which are the people and all the stakeholders'. For these performers a conducive environment is furnished as a platform. It takes us to the cultural and the behavioral aspect. Understanding what motivate them, and supports them in achieving their personal goal and thereby rewarding the deserved ones, are some of the keys to unlock the desired behavior pattern.

*Knowledge in relationship*:- Few eminent personalities worked together and get to know each others moves and start reflecting, The knowledge generated in such relationship can be trapped and provided for a forum within the entities in the organization. This could reap excellent benefit for growing need for collaboration with external entity in the environment.

*Customer Knowledge* :-Recording customer details, feedback may form a solid knowledge base or a knowledge repository storing customer history.

*Organizational Memory* - Knowledge flows within the organization and it may get recorded or just used up. Effective knowledge program and advance knowledge base system extract and capture knowledge from the daily routines like wise decision diaries and review conducted to serve the purpose.

Nussbaum (2001) argued that human condition marked not only by lack of knowledge, so that our species learns rather than noise. And thus it is actively involved in the production of our bounded individual and social knowledge filed, but also recognizes its dependence on the objects and people beyond its control. Culture for that matter is collective social response to the uncertainties of human existence organization also develop such distinct pattern of knowledge which we call as organizational culture. It is further required to be manipulated and managed so is the case with the emotional dimension. The result is the reach source of many or those in the organization, enabling them to utilize it efficiently.

## 6. CONCLUSION

KM and idea of the knowledge has created a considerable interest in even a naive reader. Knowledge is being embedded in several business processes and routine. The organizational excellence can be fostered by identifying the key assets of an organization and strengthening the knowledgebase, where in knowledgebase includes technological competencies as well as the stakeholders knowledge. The essence of an organization is its abilities to create, transfer,



assemble, integrate and exploit knowledge asset. Competitive advantage can be attributed through the enrichment and proper utilization and coupling organizational assets.

There are paradigm shift observed in the business environment, KM is being landed as a vital methodology to be applied to sustain the competitive age and continuous innovation. For achieving organizational excellence, in the hype dynamic environment successful implementation of knowledge base system is taking the energetic leap In this context technology alone is certainly not the only key issue but more important are the stack-holder as well as the KM environment itself. Innovation and creativity are vital aspect to provide the actions and ideas necessary to an environment that is so much dynamic volatile, uncertain. Knowledgebase organization can be predicted as a powerful one with a raised degree of organizational excellence; where in thee organizational itself behave as a intelligent and self controlling system that may integrate and process the information in order to determine the probable action. One can definitely think for an idealistic situation and reach newer heights as we moved through the 21<sup>st</sup> century. Knowledge base competence can be important unable of success into days hypo competitive world.

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# Relationship between Wholesale Price Index and Gross Sales of Income Mutual Funds in India

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## Relationship between Wholesale Price Index and Gross Sales of Income Mutual Funds in India

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### Abstract

*Wholesale Price Index(WPI) gives a fair idea about inflation rate in an economy. It also affects the real interest rate in the economy. Higher real interest rate promotes savings and consequently investments. Mutual Fund is gradually emerging as the preferred vehicle for investments in India. This study is an effort to explore the relationship between WPI and the gross sales of Income funds of India Mutual Funds. The study has covered the CPI and gross sales on Income funds for the period April 2012, because the base year was changed in 2011-12, to March 2019 as the classification of schemes changed in a big way thereafter.*

*JEL Classification: A31; C43; E44*

*Key words: Consumer Price Index, Mutual Funds, Income funds, Gross Sales*

### Introduction

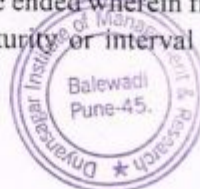
Inflation is consistent increase in general price level in any economy. Consumer Price Index(CPI) and Wholesale Price Index(WPI) are two indices commonly used for measuring inflation rate in the economy. However this study is restricted to explore the relationship between WPI and the gross sales of Income Mutual Funds in India. To make the WPI for different periods comparable, it is calculated against the values of base year. Inflation rate is calculated as the percentage change in WPI for a month over the same month in the previous year, and hence WPI actually represents year on year change(Y-o-Y). The base year is changed periodically to accommodate the changing basket of goods of consumption.

Positive inflation rate actually leads to erosion in the purchasing power of the consumers. And any decrease in purchasing power leads to lower real income, which is arrived at by reducing inflation rate from the nominal income. Lower real income means lower savings and consequently investible funds in the hands of the consumers.

Mutual funds are fast catching up as the preferred mode of investment in India because of various benefits like professional management, easy liquidity, lower costs, tax benefits. As on 29<sup>th</sup> February 2020 the total assets under management(AUM) of the Indian mutual funds was ₹27.23 lakh crore, from 8.88 crore folios and 1,917 schemes. Based on the instruments in which these schemes can invest into, the schemes are classified into 5 categories, viz., Income/Debt Oriented Schemes, Growth/Equity Oriented Schemes, Hybrid Schemes, Solution Oriented Schemes, and Other Schemes. These schemes can either be open-ended wherein purchases and redemptions can be made any time once it is reopened after the closure of new fund offer, or close ended wherein fresh purchases cannot be made other than the new fund offer period and redeemed only at maturity or interval funds wherein purchases and redemptions are allowed periodically.

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A part of the total savings in the Indian economy goes to mutual funds. Investors preference of schemes is impacted by various factors such as investors' goals, risk profile, longevity of investment. Mutual Funds(MFs) in India have historically been investing more in debt than in equity market as is evident from greater mobilisations under debt/income schemes. The debt assets of MFs mainly comprise government securities, corporate debt and money market. The debt portfolio of MF industry has witnessed a shift towards corporate debt instruments, which include floating rate bonds (FRBs), non-convertible debentures (NCDs) and PSU bonds. MFs' investments in money market instruments include treasury bills, commercial paper (CP), certificates of deposit (CDs), CBLO, etc

Changes in inflation rate and consequently interest rates gets reflected in changes in inflows in mutual funds too. Logically, changes in WPI which is a shadow of inflation rate should immediately get reflected in the changes in inflows in income funds, of all the mutual fund asset classes, as this asset class is more closely related to interest rates. Also, Income/Debt Oriented Schemes is the largest mutual fund asset class constituting more than 45% of the total mutual fund assets as on 29<sup>th</sup> February 2020.

It is in this background that this study to explore the relationship between WPI and gross sales of Income mutual funds in India has been undertaken.

### Literature Review

Vijaya Kittu, M., & Betsy Beatrice, B. (2019) in a study found that majority of mutual fund investors treat debt funds as important for their investment portfolio and features like safety, liquidity and returns are "highly important" while past performance and ratings are "important".

Kopsch F., Song HS and Wilhelmsson M.(2015) studied Swedish quarterly data on mutual funds inflows over the period 1998-2003 to explore relationship between mutual funds flows and financial macro variables and found new financial variables that have predictive power in determining mutual funds, namely market fear, exchange rate, households' expectation regarding inflation as well as outflows from mutual bond funds.

Kothari, S.P. and Shanken, J.(2004) in their study on Asset Allocation with Inflation-Protected Bonds found that real (inflation-adjusted) returns on indexed bonds are less volatile than the returns on otherwise similar conventional bonds

Laurence, E.B.(2010) studied how do changes in expected inflation affect gold prices. Using unexpected changes in the Consumer Price Index (CPI) he found that surprises in the CPI do not affect gold spot prices. He recommends that investors anticipating changes in inflation expectations should design speculation strategies in the bond markets rather than the gold markets, as they cannot determine market inflation expectations by examining the price of gold.

Gottlieb, C.(2015) studied the effects of anticipated inflation on the distribution of household wealth and welfare and found that an increase in anticipated inflation leads households to reshuffle their portfolio towards real assets. This crowding-in of supply for real assets lowers equilibrium interest rates and thereby redistributes wealth from creditors to borrowers.

Bekaert, G. and Wang, X.(2010) studied inflation risk and the inflation risk premium and realised that standard bond and well-diversified equity indices are poor inflation hedges. Treasury bills, foreign bonds, real estate and gold improves matters but inflation risk remains difficult to hedge.

Howard, H.D.(1978) opines that inflation can be expected to exert two separate influences on savings. Inflation encourages the holding of real assets rather than assets fixed in nominal value. At the same time inflation creates a feeling of uncertainty and pessimism about the future. He also detected that there are several ways in which inflation influences the personal saving rate. First, and most generally, there is the indirect effect by way of it's influence on the real value of net liquid assets. Second, inflation tends to encourage personal saving, both through direct uncertainty effects and through indirect channels such as the real-balance effect. However, inflation is not the only variable that affects saving behaviour through uncertainty effects. Unemployment variables also have positive effects on personal saving.



Lian, C; Ma, Y. and Wang, C. (2019) documented intrinsic reaching for yield behavior at the individual level and analyzed its drivers. Using simple randomized experiments of investment decision making, they showed that allocations to the risky asset are significantly higher when interest rates are low, holding fixed the excess returns of the risky asset. Based on their findings, we can conclude that inflows in income funds who are comparatively low on risk should get higher allocations when interest rates are high.

Choi, J. and Kronlund, M. (2018) examined "reaching for yield" in U.S. corporate bond mutual funds and found that funds generate higher returns and attract more inflows when they reach for yield, especially in periods of low-interest rates even though returns for high reaching-for-yield funds nevertheless tend to be negative on a risk-adjusted basis.

### Need for the study

As is evident from the literature review, apparently no study has been undertaken so far to study the relationship between WPI and gross sales of Income Mutual Funds in India. This prompted the researchers to undertake this study.

### Objectives

The objective of the research is to find out if there is any relationship between Wholesale Price Index (WPI) and gross sales on Income Mutual Funds in India.

### Research Methodology

#### Hypothesis

H<sub>0</sub>: There is no significant relationship between Wholesale Price Index and gross sales of Income Mutual Funds in India.

H<sub>1</sub>: There is a strong relationship between Consumer Price Index and gross sales of Income Mutual Funds in India.

#### Data Collection

This research work explores the relationship between Wholesale Price Index (WPI) and gross sales of Income Mutual Fund in India for a period from April 2012 to March 2019. The reason behind selecting April 2012 as the start point is that the base year for earlier years was different, similarly the logic behind taking March 2019 as the last month is a major shuffling in the way mutual funds are clubbed from April 2019 onwards. The WPI data for this study was downloaded from [www.rbi.org](http://www.rbi.org) and the mutual funds data from [www.amfiindia.com](http://www.amfiindia.com). Thus the research is entirely based on the Secondary data. Following is the data, which were downloaded on 12<sup>th</sup> March 2020:

### Data Analysis

Table 1: Month wise movement of WPI and Gross Sales of Income Funds in India

Month & Year	WPI	Gross Sale of Income Funds ('000 Cr)
Apr'12	104.7	55.55
May'12	105.3	43.43
Jun'12	105.3	68.94
Jul'12	106.2	64.84
Aug'12	106.9	52.56
Sep'12	107.6	79.49
Oct'12	107.4	79.52
Nov'12	107.3	58.89
Dec'12	107.1	58.13
Jan'13	108.0	60.29



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Feb'13	108.4	56.39
Month & Year	WPI	Gross Sale of Income Funds ('000 Cr)
Mar'13	108.6	115.24
Apr'13	108.6	87.23
May'13	108.6	66.22
Jun'13	110.1	54.70
Jul'13	111.2	57.34
Aug'13	112.9	42.36
Sep'13	114.3	33.16
Oct'13	114.6	29.69
Nov'13	114.3	31.60
Dec'13	113.4	30.41
Jan'14	113.6	36.22
Feb'14	113.6	43.77
Mar'14	114.3	84.03
Apr'14	114.1	49.57
May'14	114.8	40.12
Jun'14	115.2	44.20
Jul'14	116.7	31.07
Aug'14	117.2	27.50
Sep'14	116.4	32.35
Oct'14	115.6	35.22
Nov'14	114.1	46.64
Dec'14	112.1	41.43
Jan'15	110.8	45.56
Feb'15	109.6	40.51
Mar'15	109.9	59.32
Apr'15	110.2	48.62
May'15	111.4	34.92
Jun'15	111.8	41.75
Jul'15	111.1	51.87
Aug'15	110.0	50.87
Sep'15	109.9	42.50
Oct'15	110.1	49.16
Nov'15	109.9	33.38
Dec'15	109.4	38.52
Jan'16	108.0	40.93
Feb'16	107.1	36.86
Mar'16	107.7	56.12
Apr'16	109.0	60.83
May'16	110.4	45.02

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Month & Year	WPI	Gross Sale of Income Funds ('000 Cr)
Jun'16	111.7	49.56
Jul'16	111.8	74.61
Aug'16	111.2	77.80
Sep'16	111.4	73.31
Oct'16	111.5	104.79
Nov'16	111.9	83.07
Dec'16	111.7	70.48
Jan'17	112.6	86.03
Feb'17	113.0	55.22
Mar'17	113.2	87.63
Apr'17	113.2	101.58
May'17	112.9	70.46
Jun'17	112.7	74.31
Jul'17	113.9	119.88
Aug'17	114.8	83.88
Sep'17	114.9	64.28
Oct'17	115.6	94.25
Nov'17	116.4	70.85
Dec'17	115.7	50.70
Jan'18	116.0	51.41
Feb'18	116.1	49.12
Mar'18	116.3	78.34
Apr'18	117.3	68.18
May'18	118.3	88.89
Jun'18	119.1	40.81
Jul'18	119.9	44.94
Aug'18	120.1	47.36
Sep'18	120.9	29.98
Oct'18	122.0	24.38
Nov'18	121.6	27.31
Dec'18	119.7	37.47
Jan'19	119.2	40.98
Feb'19	119.5	35.13
Mar'19	119.9	64.09

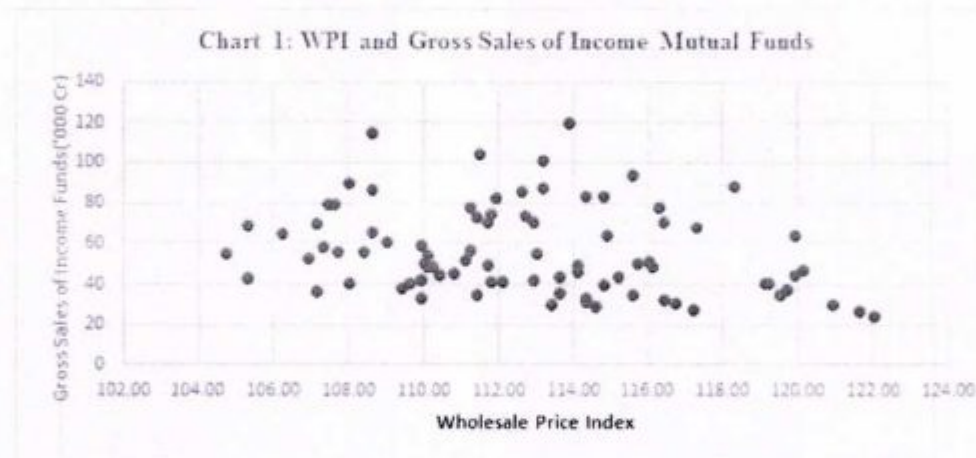
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When we plot the above data, we get the following chart:



From the chart itself, it is apparent that there is no strong relationship between the wholesale price index and gross sales of income mutual funds in India. However, researchers thought it to be prudent to apply statistical tools to confirm it.

#### Descriptive Statistics -

We get the following results when analysed for descriptive statistics:

Table 2: Descriptive Statistics of WPI and Gross Sales of Income Funds in India

Measure	Wholesale Price Index	Gross Sale of Income Funds (*000 Cr)
Mean	112.7	56.88
Median	112.7	51.14
Mode	108.6	#N/A
Standard Deviation	4.12603	21.51936039
Variance	17.0242	463.0828715
Kurtosis	-0.55816	0.08904285
Skewness	0.25565	0.779135907
Range	17.3	95.499
Minimum	104.7	24.378
Maximum	122.0	95.499
Sum	9488.1	4873.39
Count	84	84
Confidence Level(95.0%)	0.02832	0.147678562

Statistical tools used in this study are Correlation analysis. Analytical tools used for the research is MS-Excel.

#### Correlation Coefficient

To fulfil the required objective, researchers have calculated correlation coefficient and the results are as follows:

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		WPI	Gross Sales of Income Mutual Funds
Wholesale Price Index	Pearson Correlation	1	-0.2531
	Sig. (2-tailed)		.052
	N	84	84
Gross Sales of Income Funds	Pearson Correlation	-0.2531	1
	Sig. (2-tailed)	.052	
	N	84	84

The calculated value of correlation coefficient is (-)0.2531, which indicates negative and weak correlation between Wholesale Price Index and gross sales of Income Mutual Funds in India. Statistically, the correlation is insignificant as it is very far from 1.

### Conclusion

There is insufficient evidence to conclude that there is a significant relationship between Wholesale Price Index and gross sales of Income Mutual Funds in India because the correlation coefficient is not significantly different from 0. And hence, we accept the Null hypothesis which states that there is no significant relationship between Wholesale Price Index and gross sales of Income Mutual Funds in India.

This paper has explored whether any relationship exists between the Wholesale Price Index and the gross sales of Income Mutual Funds in India. However, this paper has just scratched the surface and this study can be taken further in multiple ways like relationship of CPI and/or WPI on other asset classes of Indian as also foreign mutual funds.

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# “A Study of Satisfaction among Employees regarding Selection & Recruitment at Royal Enfield, Kings Autoriders”

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## ABSTRACT

This research paper was undertaken to study the satisfaction of employees regarding recruitment and the selection process at Kings Auto riders, Royal Enfield, Baner Pune. The main objective of the study was to identify the satisfaction of employees regarding the process of recruitment and selection in the organisation. It is always in organizations best interest to recruit the best people. Recruitment decisions is not a haphazard activity, it should be taken with proper planning. Employing the incorrect person, who is not ideally suitable for the job, can be an expensive mistake and becomes liability for organization. This study has been compiled with the help of primary and secondary data. Primary data is collected from structured questionnaire. The satisfaction of the employees is also as expected but areas under less results can be taken under observations and done work force and fix the remaining issues. Hence all the objectives are satisfied.

**Keywords:** Employee Selection, recruitment, Employee Satisfaction, working environment

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## 1. Introduction

Human Resources are a term used to describe the individuals who comprise the workforce of an organization. The use of the term 'human resources' by organizations to describe the workforce capacity available to devote to the achievement of its strategies has drawn upon concepts developed in Organizational Royal Enfield Ltd. is the largest exporter of two wheelers with Eicher motors at Redditch Industries of Royal Enfield manufactures state of the art range of two wheelers. The brand, classic 350cc is continually dominating the Indian motorcycle market in the premium segment, its thunderbird also a successful bike on Indian roads. The Royal Enfield group is amongst the top 10 business houses in India stretches over a wide Range of industries, spanning automobiles, bike accessories, wallets, and clothing, travel bags. The groups flagship Company, Royal Enfield is ranked as the worlds largest two wheelers manufacturer and having the ontinuous Production the Royal Enfield Brand is well-known across several countries in Latin America. Africa middle East South and South East Asia. Founded in 1901 at the height of India's movement for independence from the British, the group has an illustrious history. The integrity dedication resourcefulness and determination to succeed

## 2. Objective of Study

1. To identify the satisfaction of employees regarding the recruitment process.

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/362918904>

# "A Study of Satisfaction among Employees regarding Selection & Recruitment at Royal Enfield, Kings Autoriders"

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### 3. Research Method

Research Methodology is a systematic method of discovering new facts or verifying old facts, their sequence, inter-relationship, casual explanation and the natural laws which governs them.

#### Research Design

Descriptive research is conducted to find out the information about the factor and to spot light the areas that need the management's attention.

### METHOD OF DATA COLLECTION

#### Source of Data

Primary data and secondary data were collected for this study by tools.

#### Primary Data

The objective of the study has been accomplished with the help of primary data collected from 60 employees.

The pre-decided number of samples has been selected based on the (Probability Sampling) simple random sampling method. For the selection of samples from the personnel department, from the list of 108 Employees by name, department, and nature of duty have been collected and from this list 60 samples have been selected randomly for the present study.

The selected samples are met in person and the required data have been collected with the help of a structured questionnaire.

#### Secondary Data

Secondary data was collected from different departments of company and website.

#### Sampling Method

#### Sample Size :

Sample size of 60 employees were taken .

#### Population :

Population is 108 employees and Random Sampling Method is used to collect data,

#### Sampling Technique

The technique used for the research is Probability Sampling is finite. The Sampling technique selected for the study is Simple random sampling technique. It is one of the most useful technique used by respondents to select sample from the total population.

### STATISTICAL TOOLS AND TECHNIQUES

The collected data have been analyzed with the help of SPSS tools like Chi-square Analysis & simple percentage method.

**No of Respondents Percentage** = X100

**Total number of Respondents**

  
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## Chi-Square Test

This test allows us to determine whether two attributes are independent of each other. In this study chi-square has been used to test if there is an association between various variables and the overall employee satisfaction, safety and welfare measures.

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

## 4. ANALYSIS

Statistical Analysis Category of workers and level of satisfaction of existing safety measures

**H0:** There is no significant association between employee satisfaction and Selection and Recruitment process.

**H1:** There is significant association between employee satisfaction and Selection and Recruitment process.

## 5. Interpretation-

1. Reliability :- Cronbach's alpha ( $\alpha$ ) is the most common measure of internal consistency ("reliability"). It is most commonly used when research has multiple Likert questions in a survey/questionnaire that form a scale and to determine if the scale is reliable.

Scale: ALL VARIABLES

Case Processing Summary			
		N	%
Cases	Valid	60	100.0
	Excluded <sup>a</sup>	0	.0
	Total	60	100.0

a. Listwise deletion based on all variables in the procedure.

## Reliability Statistics

Cronbach's Alpha	N of Items
.665	13



From the above test Cronach's Alpha ( $\alpha$ ) value is .665 which is greater than 0.5

2. Descriptive statistics are useful for describing the basic features of data, for example, the summary statistics for the scale variables and measures of the data. In a research study with large data, these statistics may help us to manage the data and present it in a summary table

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
1.	60	1	5	3.40	1.520	.309		-1.387	.608



2.	60	1	5	3.50	1.467	-.533	.309	-1.232	.608
3.	60	1	5	3.35	1.482	-.375	.309	-1.409	.608
4.	60	1	5	3.45	1.512	-.419	.309	-1.445	.608
5.	60	1	5	3.68	1.501	-.678	.309	-1.162	.608
6.	60	1	5	3.70	1.499	-.713	.309	-1.118	.608
7.	60	1	5	3.83	1.392	-.823	.309	-.878	.608
8.	60	1	5	3.65	1.471	-.685	.309	-1.098	.608
9.	60	1	5	3.87	1.371	-.976	.309	-.486	.608
10.	60	1	5	3.82	1.501	-.920	.309	-.758	.608
11.	60	1	5	3.80	1.459	-.893	.309	-.744	.608
12.	60	1	5	3.95	1.371	-1.010	.309	-.503	.608
13.	60	1	5	3.95	1.371	-1.010	.309	-.503	.608
Valid N (listwise)	60								

From the Descriptive Analysis the value of Skewness & Kurtosis which in the range of -2 to +2 the ie Skewness it is .309 and for Kurtosis it is .608

### 3. Factor Analysis

The purpose of factor analysis is to reduce many individual items into a fewer number of dimensions. Factor analysis can be used to simplify data, such as reducing the number of variables in regression models

	Initial	Extraction
1.	1.000	.581
2.	1.000	.534
3.	1.000	.835
4.	1.000	.675
5.	1.000	.694
6.	1.000	.626
7.	1.000	.587
8.	1.000	.843
9.	1.000	.797
10.	1.000	.719
11.	1.000	.597
12.	1.000	.886
13.	1.000	.886

From factor analysis it shows the extraction value is more than 0.5 which indicates the data is ready for regression Model

Extraction Method: Principal Component Analysis.



**Regression:**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.404 <sup>a</sup>	.163	.149	2.88230

a. Predictors: (Constant), SELECTION

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.891	1	93.891	11.302	.001 <sup>b</sup>
	Residual	481.843	58	8.308		
	Total	575.733	59			

a. Dependent Variable: SATISFACTION

b. Predictors: (Constant), SELECTION

From the above analysis it is observed that employee satisfaction has significance value is .001 which is less than .05 significant level. We reject null hypothesis and accept alternative hypothesis. Significance level .001 indicates that there is strong relation between two variables that is satisfaction and recruitment and selection process.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	205.567 <sup>a</sup>	168	.026
Likelihood Ratio	150.781	168	.826
Linear-by-Linear Association	10.925	1	.001
N of Valid Cases	60		

a. 195 cells (100.0%) have expected count less than 5. The minimum expected count is .02.

Degrees of freedom = 1

Calculated 2 value, = 0.026

Table value 2 @ 0.05, df: 1 = . 826



**3. From the above analysis it is observed that Pearson Chi-Square value for satisfaction is.**

.026 less than .05 significant level from the above observation. Researcher has enough evidence to reject null hypothesis and accept alternative hypothesis.

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## 6) Conclusion

- The main aim of this paper is to know and understand the satisfaction of employee about recruitment and selection process in Kings Autoriders, Royal Enfield Pvt Ltd.
- The overall Recruitment process in Kings Autoriders is satisfactory. There are certain organization objectives both in short term and long term should be taken into consideration as a basic parameter for recruitment decision
- There should also be candidates available on urgent requirement such planning should also be done.
- There are minor modifications in the areas like documentation of recruitment process, other department head participation in interview and use of latest equipment etc. to be made for which suggestions are given in the above.

## 7) Suggestions And Recommendations

- Awareness about documentation and uniformity in recruitment process has been observed less among some employees.
- Transparency of recruitment should be increased as expected result has not appeared.
- Response of human resource department regarding various vacancies and other issues should be increased.
- Some employees are still not satisfied with the working environment and rules and regulations of the organisation that must be taken under observation.
- Selection criteria of the employees should also have an another option leaving knowledge, experience and merit.
- Involvement of employees in decision making and training programs must be increased

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## A STUDY OF INNOVATIVE FINANCIAL ENGINEERING IN FINANCIAL SERVICE SECTOR

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### Abstract

Financial engineering is the use of mathematical techniques to solve financial problems. Financial engineering uses tools and knowledge from the fields of computer science, statistics, economics, and applied mathematics to address current financial issues as well as to devise new and innovative financial products. Financial engineering is sometimes referred to as quantitative analysis and is used by regular commercial banks, investment banks, insurance agencies, and hedge funds. It has also aided to the innovation of processes and distribution in the financial services industry. Technology has been both source and enabler in this innovation journey. The information technology companies have a major role to play in the sustainable growth of the financial services industry.

**Keywords:** Financial engineering, technology, financial system

### Research methodology

This paper is depending upon Secondary Sources of Data. The information is collected from Different books, journals, magazines and websites.

### Objectives

1. To understand the basics of financial engineering.
2. To study the scope of financial engineering in India
3. To study the process of financial engineering.



### Definition

Financial engineering involves the design, the development and the implementation of innovative financial instruments and processes, and the formulation of creative solutions to problems in finance.

### Introduction

Financial engineering is an engineering discipline which deals with the creation of new and improved financial products through innovative design or repackaging of existing financial instruments. Financial engineering and innovations are seen in bonds, equity, derivatives and in fields like mergers, acquisitions and corporate restructuring. Some of the innovations in the Indian financial market are debt-oriented schemes of mutual funds, interest rate futures, interest rate swaps, currency swaps, floating rate bonds, money market mutual funds, etc.

### Process of Financial Engineering

Financial engineers work at investment banks, which cater to the requirements of institutional clients. Identification of need involves the objective which the investor wants to achieve through financially

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engineered products. For example, individual investors wanted to reduce their tax liability. To help achieve this objective, mutual funds managers developed debt oriented mutual fund schemes by introducing variations in mutual fund schemes. Similarly, some investor might want to increase his exposure to a particular sector like the real estate sector. So, he can invest in infrastructure funds introduced by mutual fund managers.

Process Identification of need Initial sketch of Product Complex Model Building Exercise Testing of the product Perfect product on the basis of the exercise Pricing of the Product Restructuring of the product Test Marketing Launching of the Product

## Financial Engineering in "EQUITY"

### Non-Voting Shares

If such kind of equity securities are issued, it would have the following benefits: It would enable management to retain their control; and  It can be bought by retail investors who do not bother about voting rights, but are more concerned about dividends and returns.

### Differential Voting Rights (DVRs)

In shares with DVR, investors have disproportionate voting rights. Those having less voting rights are paid higher dividends because of less control over the company. In the initial stage, all investors are offered same stock with same terms. Later on, they are allowed to exchange the same stock with less voting rights and high dividend

### Employee Stock Option Plan

It is offered to employees and directors of the company to give them a sense of ownership of the company and to encourage them to participate actively in the management of the company.

### Sweat Equity Shares

In this case, the entrepreneur invests his capital and the manager brings his knowledge. Over time, the manager is offered shares in lieu of salary and it is called 'sweat equity'.

**Example:** Mukesh Ambani had 12% sweat equity stake in Reliance Infocomm which became cause of dispute between the Ambani Brothers.

### Puttable Common Stock

This is one kind of buy-back offer by the company. The company, which has good reputation in the market, charges higher premium for puttable common stock. There is no loss to the company because shareholders will not exercise option once the company performs well.

**Example:** Intel had issued puttable common stock.

## Financial Engineering in "DEBT"

### Zero Coupon Bonds

These bonds are issued at discount and redeemed at par. These bonds do not carry interest.

### Dual Currency Bonds

Principal is denominated in dollars while interest is denominated in Indian Rupees. This kind of bond can be issued to Non-Resident Indians (NRIs). They could designate beneficiary in India and the amount is





remitted to designated beneficiary in India. For example, in April 2008, Adani Power issued dual currency bond amounting \$1.113 bn to finance Mundra Power Project.

### **Floating Rate Bonds**

The floating interest rate provides protection against inflation risk. The rate could be quoted as 'LIBOR + 200 Basis Points'. For example, in November 2009, Power Finance Corporation raised Rs. 11 bn via floating rate bonds. The company sold 3-year bond paying 135 basis points over one year government security and 10-year bond paying 179 basis points over one year government security.

### **Dual Rate Loans**

In dual rate loans, fixed interest rate is charged to the borrower up to prefixed period and thereafter loan is linked to benchmark rate. For example, HDFC recently announced dual rate loan.

### **Financial Engineering in Hybrid Instruments'**

#### **Convertible Debentures (CDs)**

CDs are converted into equity share on predetermined date at predetermined rate. Convertible debentures best suit companies which have long gestation period and are not able to raise fund through equity. In 2002, Reliance Industries issued triple option convertible debentures which can be converted into three equity shares.

#### **Equity-Linked Debentures (ELDs)**

Introduced by asset management companies to meet retail investors requirements. The interest on ELDs depends on the performance of underlying stock or index, and hence, it is not fixed. ELDs can be linked to stocks and indices by participation ratio. If it is linked to Sensex at participation ratio of 100%, then, if Sensex rises by 10%, interest on ELDs rise by 10%. In case, Sensex falls below, then investors will get back principal amount without return.

#### **ELDs are of two types:**

1. Principal protected where principal is protected while interest is linked to market; and
2. Principal is linked to market.

#### **Gold-Linked Debentures .**

- A structured product with underlying being gold and is linked to gold price.
- In case the price of gold falls, then investors get their principal back without return.
- If the price of gold rises, the investor gets principal plus extent to which there has been rise in gold prices.
- Targeted to High Networth Individuals (HNIs) and the minimum investment requirement is 5 lakhs.
- Offered by Edelweiss Capital, Kotak and Citi Group.



#### **Non-Convertible Debentures + Warrants (NCD + Warrants)**

NCD + Warrants are the new financial instruments proposed by SEBI which has two parts containing a debt portion (NCD) and an equity portion (Warrant). Exercise of warrant by the shareholder leads to dilution of control and issue of more equity. NCD + Warrants allow detaching both and trading them as separate units.

### **Indexed Currency Options**

Issuer pays reduced principal at maturity if specified foreign currency appreciates relative to the US dollar. This means that it is a risky proposition for investors who assume foreign currency risk by selling call option denominated in foreign currency.

### **Financial Engineering in Derivatives :**

#### **FORWARDS**

Customized contract between two parties, where one party agrees to sell/buy predetermined quantity of underlying on future date. Example- currency forward contracts.

#### **FUTURES**

- Extension of forward contracts.
- It is a standardized contract between two parties wherein one party agrees to buy/sell predetermined quantity at predetermined future price on future date.
- As it is a standardized contract, it is exchange traded.
- It is marked-to-market to avoid loss to clearing corporation as it acts as counterparty in futures transactions. Both parties to contract have to pay upfront margin. Example - stock futures, index futures, currency futures which are traded on National Stock Exchange.

#### **OPTIONS**

Options give its holder right but not an obligation to buy/sell contract. There are two types of options: Call and Put. There are two parties: One taking positive side and another taking negative side. Bullish outlook about the market -- buy call option Bearish outlook-- go long on put option.

#### **SWAPS**

The most popular are currency swaps. This is used when a company has taken loan in one currency and its cash inflows come from some other country. For example, an Indian manufacturer has taken loan in US\$ but his major revenues are denominated in Euro. So, he should enter into swap transaction wherein he can swap dollar currency loan with euro denominated loan.

#### **Mutual Funds**

##### **Classification According to Maturity**

**OPEN-ENDED FUNDS:** The holder of unit of these funds can redeem them at any time to issuing company. There is no fixed maturity for these funds. Such mutual fund companies invest in secondary market, Example, ICICI Prudential

**CLOSE-ENDED FUNDS** Close-Ended Fund Asset Management Company has a definite target amount for the funds and cannot sell more shares after its initial offering. Its shares are issued like any other company's new issues and are quoted at the stock exchange. Example: Kotak Dynamic Asset Allocation Scheme.

##### **CLASSIFICATION ACCORDING TO PORTFOLIO**

- Bond funds
- Stock funds

  
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- Income funds
- Money market funds
- Balanced funds
- Growth funds: Invested in growth stock which has above average growth potential.
- Performance funds: Invested in stock with high price-earnings ratio and high price volatility.

**Example:**

**Product Level (Financial instruments)**

- Launch of stock index futures to protect against rising volatility of equity;
- Launch of debt oriented schemes of mutual funds to get tax advantage;
- Launch of Forward Rate Agreement (FRA) to hedge interest rate volatility.

**Company Level (Corporate finance)**

- Mahindra-Satyam merger deal ;
- Vijay Mallya securitized “Kingfisher Airlines” brand to raise Rs. 2,000 cr from SBI
- Tata-Tetley Leveraged Buyout; and
- Tata’s Differential Voting Right (DVR) Issue—the first of its kind in India.

**INNOVATION**

Debt-Oriented Scheme of Mutual Fund  
 Partially Convertible Debentures and  
 Fully Convertible Debentures

Zero Coupon Bonds  
 Puttable and Callable Bonds  
 Stock Index Futures  
 Havala Transactions  
 Interest Rate Swaps  
 ● Currency Swaps  
 Screen Based Trading  
 Specialized Mutual Funds  
 Exchange Traded Options  
 Project Finance

**MOTIVATING FACTOR**

Tax Advantage  
 Pricing under Capital Control Act  
 and Interest Rate Regulation

Tax Benefit  
 Volatility of Interest Rates  
 Volatility of Equity Prices  
 RBI Restrictions Interest  
 Volatility of Interest Rates  
 Volatility of Exchange Rates  
 Technology  
 Investor Preference  
 Volatility of Stock Prices  
 Risk Sharing

**Applications**

- Investment banking
- Corporate Strategic planning
- Risk management
- Primary and derivative securities valuation
- Swaps & derivatives trading or dealing
- Portfolio management
- Securities trading



  
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## Conclusion

The field of financial engineering needs much more development to ensure that investors have wider choice of investing and corporate have wider choice of financing. The new instruments should be created to ensure financial efficiency and solve the problem of financing the corporations.

This can be done by two ways:

- (1) By unbundling existing products
- (2) By creating new products.

The financial engineering field has emerged by creating new instruments from plain vanilla equity and debt. So, different mix of debt and equity, i.e., hybrid instruments can best serve investor's needs to avoid the extremes of high risk and low return.

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## A STUDY OF CONSUMERS ATTITUDE TOWARDS GREEN MARKETING

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### Abstract:

Green marketing is business practice that considers the consumer concerns about promoting preservation and conservation of natural resources. The study was concentrated particularly on the Maharashtra state in India. The research used the quantitative approach with questionnaire as the research instrument. It included basic socio-demographic questions followed by questions on consumers; environmental beliefs and environmental behavior. The results were analyzed using primary as well as secondary data which was collected through different sources of evidence, in addition to books, journals, websites and newspaper. With the increasing environmental problems all over the world there is a need to protect the natural environment of the earth and to protect it the awareness among the customer along with their will to buy green products are found out in the study. Corporate world plays the major role in green marketing, along with individuals' corporates are also responsible for the environmental changes. The steps taken by the companies for green marketing and the response they got from the consumers is the major issue of concern because its impacts are at higher level which is studied in the paper.

### INTRODUCTION

In today's Era of atomization, industrialization and developmental activities have provided all comfort and luxury to human beings, it has done so at the cost of our environment. Our survival is in danger because of degradation of environment. Though the green trend is more discernible in the developed countries, it has slowly started gaining ground in the developing countries as well. In recent year concern for environment has considerably heightened. During the process of developing and rendering the products to us, the manufacturers interact with nature and ecology at various stages. Thus, it becomes very important to evaluate the balance of give and take with our ecology; especially when we are continuously taking in abundance and are not giving back considerably. So this is the high time to "THINK GREEN".

The term green marketing came in the late 1980's and early 1990's, it began in Europe when certain products were found to be harmful to the environment and society. According to American Marketing Association (AMA) the green marketing is the marketing of product data presumed to be environmentally safe. In business the term green marketing products are commonly used to describe those who protect the natural environment by conserving energy or resources and reducing or eliminating use of toxic agents, pollution and waste. Green marketing consists of all activities designed to generate and facilitate any exchange intended to satisfy human needs or wants.

  
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Green marketing comes with a broad range of activities including product designing, change to the production process, packaging process as well as unique way of advertising. Green marketing is a concept where the production, marketing, consumption, disposal of services and products happen in a way that is less harmful to the environment with increasing awareness about implications of global warming, damageable impacts of pollutants and non-biodegradable solid waste. Both consumers and marketers are becoming sensitive to the need for switch to green products and services. Choosing green may appear to be expensive in short term, it will definitely prove to be advantageous and indispensable, cost-wise too in the long run.

#### **OBJECTIVE:**

Awareness among customers regarding green marketing and their readiness towards buying green products and paying high prices for the same.

#### **OPERATIONAL MECHANISM:**

##### **Green Marketing Mix**

The concept of green marketing mix was first introduced by Bradley (1989). Green marketing comprises of the following:

1] **Green Products:** The products that are manufactured using green technology that cause no environmental hazards are called Green Products. They use recyclable materials, save energy and water, reduce wastage and have minimal packaging and emit fewer toxic substances. Prakash (2002) suggested six ways to make the products green. They are repaired, reused, recycled, reconditioned, reduced, and remanufactured.

2] **Green Price:** Pricing is very important factor of the green marketing mix. Polonsky and Rosenberger (2001) have stated that green products have higher initial expenses, but lower run costs. Prices of the green products are often perceived to be high by the consumers in comparison to the normal products. Manjunath and Manjunath (2013) stated that if the production and the operation costs are lowered, then it would make the green products competent in the market. Customers will pay a premium for the green products only if they perceive additional value from the products in term of their overall performance.

3] **Green Place:** Srikanth and Raju (2012) stated that marketers, while introducing their green products, should position the products in the marketplace in such a manner that the products appeal to the masses and not just to small green niche market.

4] **Green Promotion:** Promotion should be the most focused upon the green marketing mix. If the marketers do not use this mix properly, then it can mislead the customers and cause green washing. In October 2012, the federal trade commission (FTC) revised its guidelines for environmental claims. - the new guidelines contain guidance for many categories-like environmental marketing claims like carbon offset and renewable energy and updates to guidance from the previous guides such as for "general environmental benefit claims" and "recycled content claims"(Davis LLP,2010).

#### **BENEFITS OF GREEN MARKETING**

##### **Internal Benefits-**

Marketing starts before a business begins advertising or promoting its products. It includes strategies covering product development, pricing and distribution. In addition to helping boost sales, green marketing can help companies reduce operating and production costs, specifically by lowering energy usage. environmentally sensitive companies are more attractive to potential employees who seek to become part of a positive corporate culture.



  
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### External Benefits-

When a business uses energy efficient lighting, heating and cooling, reduces its water use, recycles office materials, organizes employee community cleanup activities, uses recycled materials and creates less waste, it generates positive public relations in its community and industry and with customer. It can advertise itself as a green company or its products as green on its product packaging, in its advertising and on its website. This can create brand preference or loyalty and boost sales and profits. Green marketers also can qualify as vendors or suppliers with government agencies and businesses that prefer to do business with these types of businesses.

### LITERATURE REVIEW:

According to Professor P. Oyewole in the year 2001, paper presents a conceptual link among green marketing, environmental justice, and industrial ecology. It argues agenda is finally suggested to determine consumer awareness of environmental justice, and their willingness to bear the costs associated with it.

According to professor Donaldson, in the year 2005, in his study realized in the Great Britain initially concluded that in general the ecological attitude of consumers changed positively. This study reported the strong faith of consumers in the known commercial brands and in the feeble behavior referring to the "green" claims, which was the main cause behind the consuming failure to interpret their concerns beyond the environment in their behavior.

According to professor Gurau and Ranchhod in year 2005, firms that embraced green marketing encountered numerous challenges such as the variability of demand, unfavorable consumer perception and high cost of production involved.

Karna. J. Hansen, E & Juslin, H (2003) interpret that proactive marketers are the most group in implementing environmental marketing voluntary and seeking competitive advantage through environmental friendliness.

Jacquelyn Ottman is the international foremost expert of green marketing and eco-innovation, mentioned about journey of green marketing in each generation in her book "The new rules of green marketing"-

Generation X: Eyes on the world-

Generation Xers (Gen Xers, also known as the baby bust generation) were born between 1964 and 1977 and are 33-46 old as of 2010. counting among them actors Leonardo DiCaprio and Cameron Diaz as two of most outspoken environmentalists of their generation, gen Xers see environmental concern through a lens that aligns social, educational, and political issues.

In 1984, the Gen Xers witnessed the fire in a union carbide plant in Bhopal, India, which took over 3000 lives and is thought to be still causing serious health problem today. Gen Xers also experienced the aftermath of the explosion in the Chernobyl nuclear power plant. In 1986, their same televisions showcased the devastation wrought by the Exxon Valdez oil spill in prince William Sound, Alaska and they were likely aware of events such as the Rio Summit of 1992.

Generation Y: Digital media at their command-

The likely new leaders of the modern-day green movements are the generation Ys, born between the early 1980s and the early 1990s, and in 2010 ranging in age from 20 to 30 years old. This tech-savvy generation of Gen Ys (also known as Millennials) grew up with computers and internet. Distrustful of government and authority, they are quick to challenge marketing practices they deem to be unauthentic or untruthful. With the ability to express their opinions through blogging, texting, and social networks, they are capable of mustering immediate responses from millions around the globe. the offspring of the baby boomers whose social and environmental values they share, today's young adults lived through the Hurricane Katrina In 2005 and the BP oil spill in the gulf of Mexico in 2010, and share awareness of the great pacific garbage patch, a mass of plastic trash whose exact size is estimated to be bigger than the state of Texas. Like their counterparts in other generations, Gen Ys believe that global climate change is caused by human activities and they are almost twice as likely to buy more green products as those consumers who think climate change is occurring naturally. Green is an integral part of this generation's college experience. Reusable water bottles and coffee mugs are



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ubiquitous on college campuses where many savvy companies are reaching out with sustainability message to students who will soon become householders with significant incomes. Not content to sacrifice all for the almighty dollar, Gen Ys seek to balance "quality of life" and the "quest for wealth"; they seek to work for socially conscious employers.

Generation Z: Green is natural part of their life-

Suggesting that green is here to stay are generation z; the first generation to be brought up in an environmentally conscious world, green is a part of their everyday life. Generation Zs. Those currently under the age of 17, think nothing of living in solar-powered homes with hybrid car in the driveway. Learning about environmental issues in school, they were likely exposed to the story of stuff, a 20-minute animated video that divulges the environmental impact of our daily consumption. For Gen Zs, sorting paper and plastic for recycling is natural a daily activity as taking out trash was for their parents. In school and at home the 3 R's of waste management, "Reduce, Reuse, and Recycle," are common for them. Environmentally sensitive cleaning aids, locally grown produce, and recycled-paper goods top their parents' shopping lists. Clothes made from organically grown cotton and bio-based fibers are part of the Gen Z uniform.

Possible Reasons for the Firms Inclination towards Green Marketing-

1. Organizations perceives environmental marketing to be an opportunity that can be used to achieve its objectives.
2. Organizations believe they have a moral obligation to be more socially responsible
3. Governmental bodies are forcing firms to become more responsible.
4. Competitors' environmental activities pressure firms to change their environmental marketing. Cost factor associated with waste disposal, or reduction in material usage forces firms to modify their behavior.

## RESEARCH METHODOLOGY

The aim of this research paper is to analysis the GREEN MARKETING. In order to reach the aim a structured questionnaire was sent 160 people. The respondents were categorized on the basis of,

- You are Environmentally friendly
- Prefer environment friendly activities
- Aware of green product and green marketing
- Green marketing exists or not
- Green marketing increases the product price
- Green marketing is worth
- Reason for paying on green product
- Reason for not paying on green product

Out of 160 people 159 responded to the questionnaire. The peoples have been selected by random sampling method.

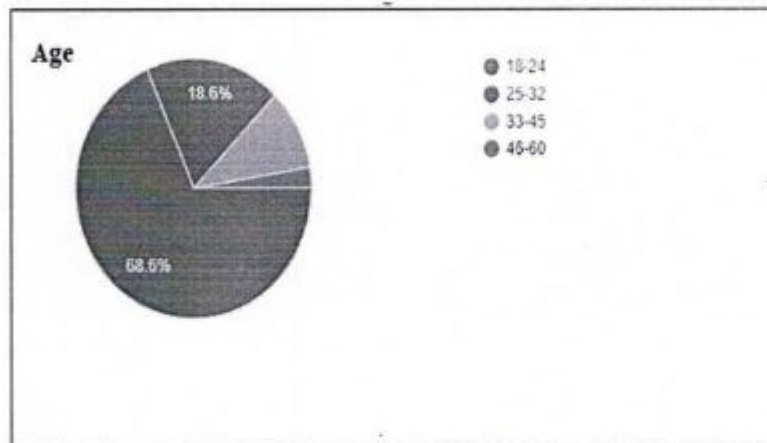
## DATA ANALYSIS

The analysis of the collected data is done based upon the parameters as shown below [Sample size = 159] Out of total sample population i.e. 159 respondents, 53.2% were male and 46.8% were female and female respectively.

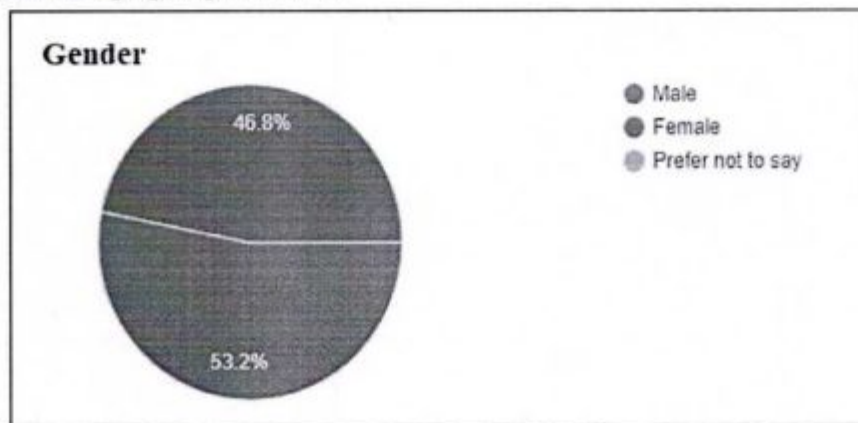


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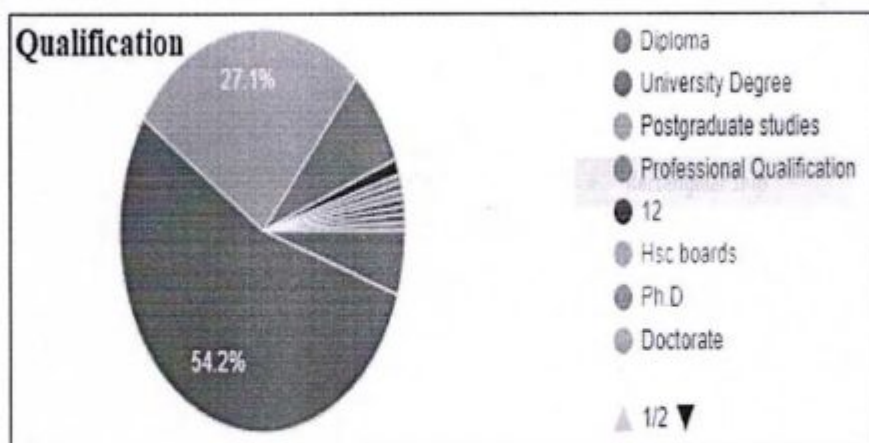




Majority of the sample population i.e. 159 respondents were from the age group of 18-24 and contributed 68.6% of the total sample size. 18.6% of the population was between the age group of 25-32 and 11.5% of population was between the age group of 33-45.



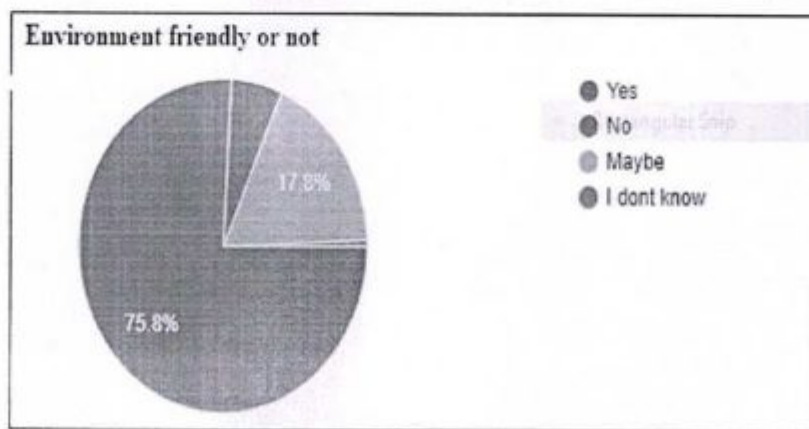
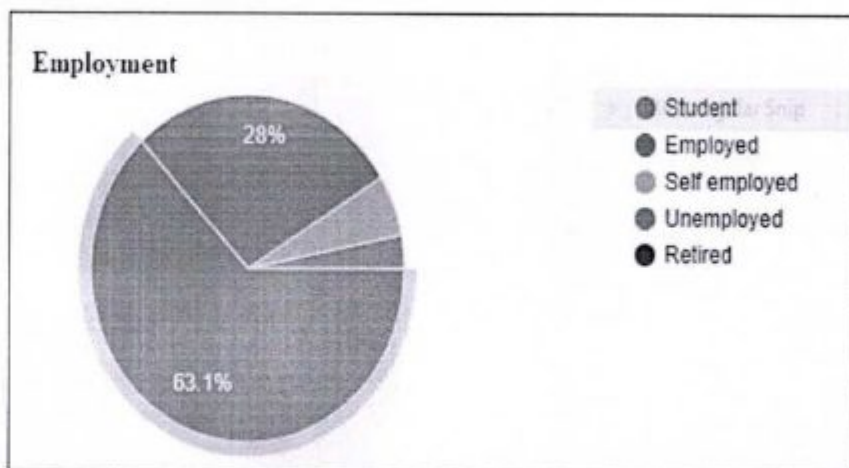
Out of total 159 respondent, 54.2% were UG student and 27.1% were PG student and remaining were professional, Ph.D., Doctorate, Diploma.



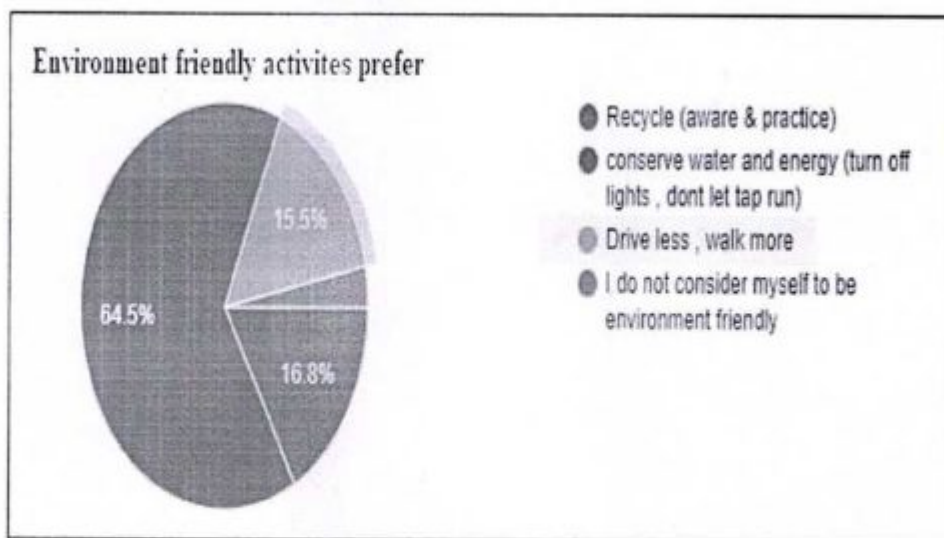
From the 159 respondents, 63.1% were students and 28% were employed. Whereas the remaining were 6.9% were self-employed and 2% were Unemployed.

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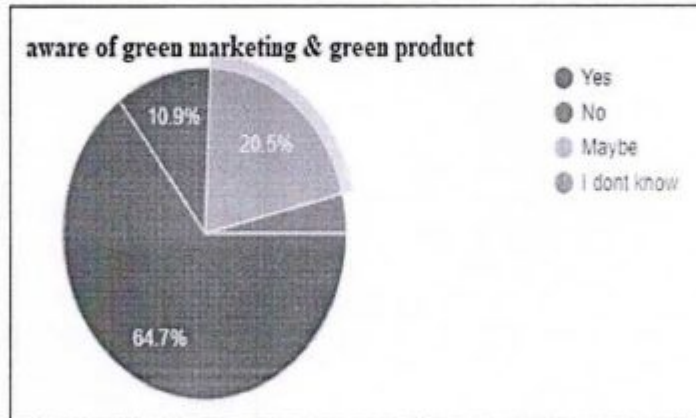


Among 75.8% people believe in environmentally friendly as the respondent of 159. 17.8% were confuse regarding environmentally friendly product use or not. Some like 2% people not believe in environmentally friendly.

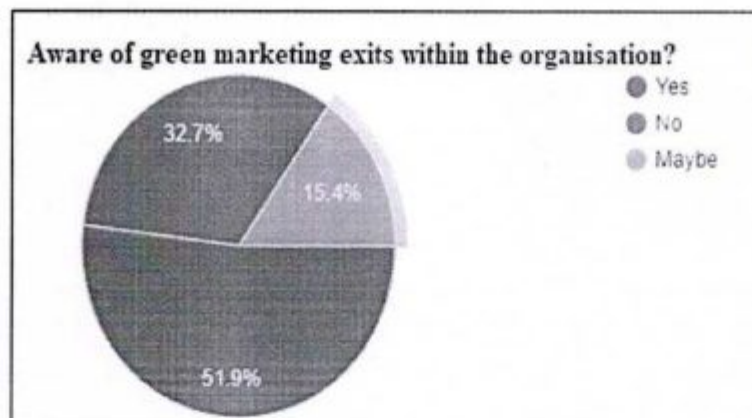




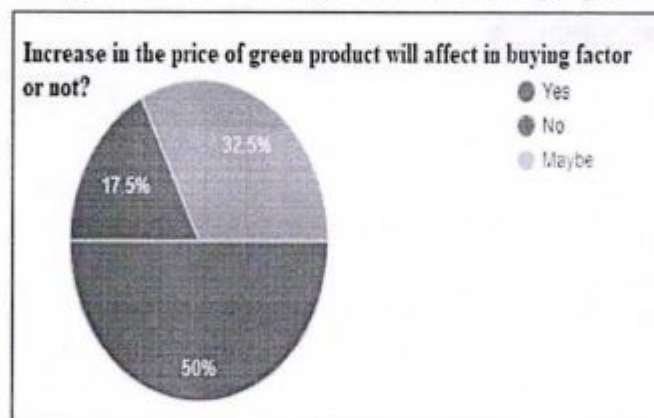
As the research happens among 64.5% people prefer to do environment friendly activity as conserve water and energy (turn off lights, don't let tap run). 15.5% people prefer to do drive less and walk more as the environment friendly activity. As 16.8% of people prefer to do recycle as the environment friendly activity. 3.2% of people do not consider as environment friendly activities.



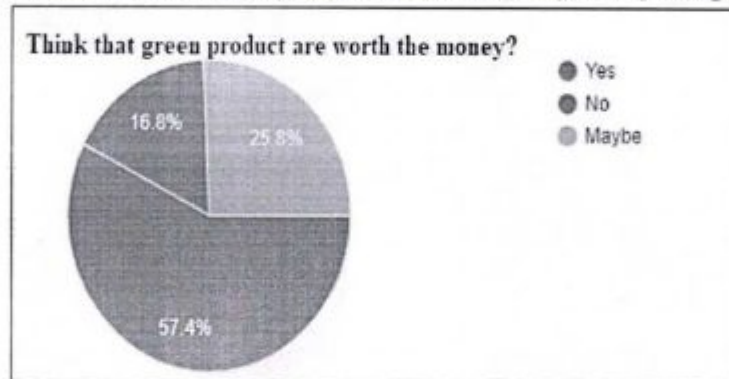
Among 64.7% were aware of green marketing and green product as the same 10.9% were not aware of green product and green marketing. 20.5% people were confused about green product and green marketing. 3.9% people do not know about green product and green marketing.



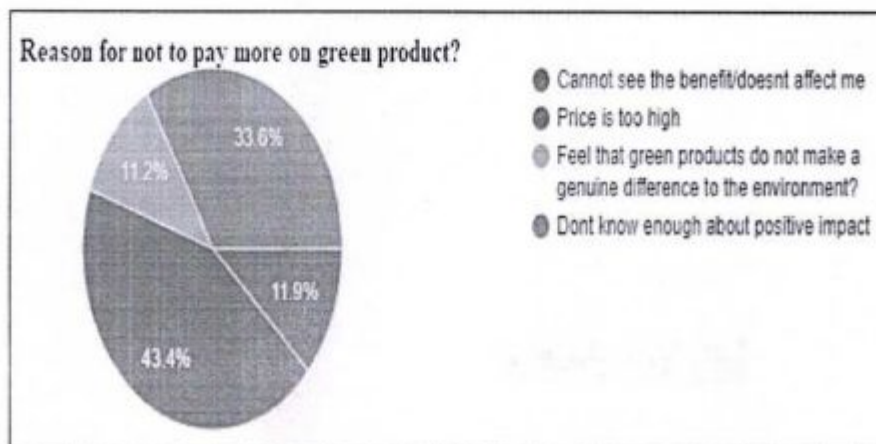
As the research 51.9% of people were aware that green marketing exit in the organization .32.7% of people do not know about the green marketing exit within the organization.15.4% people were confuse of it.



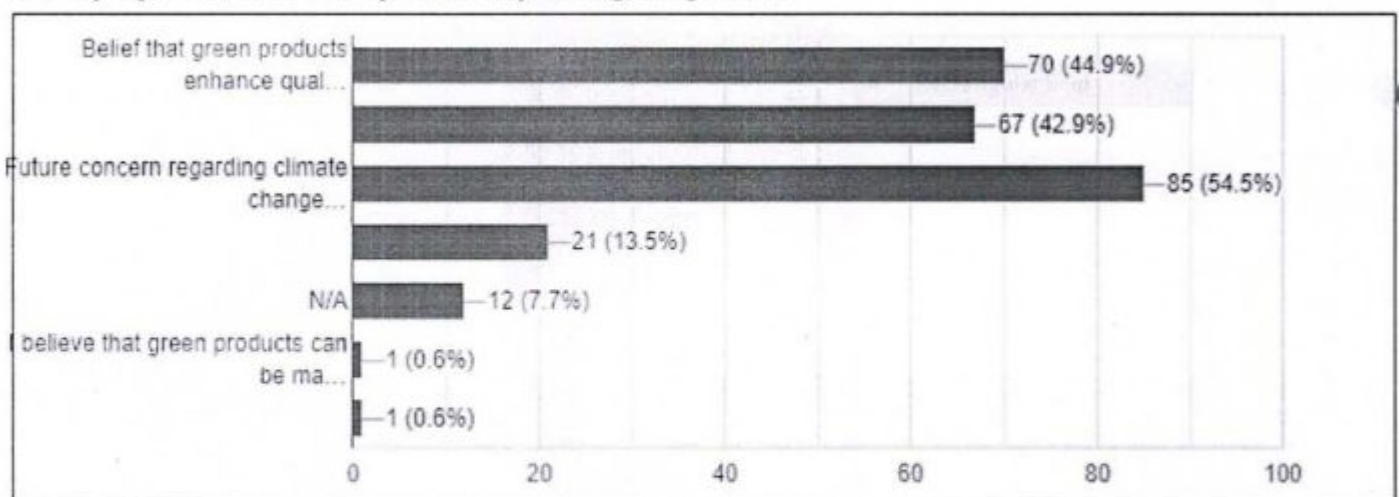
Among the responds of 159 peoples 50% of people will buy the green product as price were increase and 32.5% were confuse about to buy or not. Where 17.5% peoples were not going to buy the green product.



57.4% people think that green product was worth money. As 16.8% people think that were not worth to buy the product and remain 25.8% were confuse.



Among 11.2% people feel that green products do not make a genuine difference to the environment. 11.9% people cannot see the benefits/doesn't affect them. 11.2% people feel that green products price is too high. 33.6% people don't know the positive impact of green product.



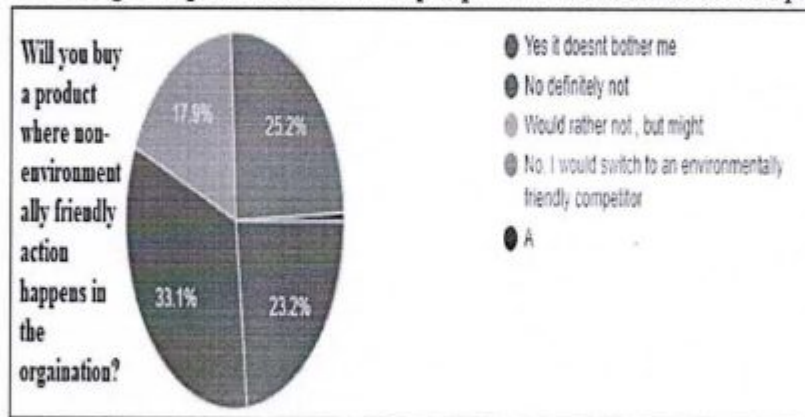
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### Reason for pay more for green products?

As through the research people had reason to pay more for green product as the 54.5% people had future concern regarding climate change. 44.9% people believe that green products enhance quality of life. 7.7% people had no reason for pay more for green products. 0.6% of people had reason that it will protect our environment.



33.1% of people not continue to buy from a company that find out practiced non – environmentally friendly actions. 23.2% of people matter about the company that practiced non-environmentally friendly actions. 25.2% people were switch to an environmentally friendly competitor. 17.9% of peoples might be yes or no they were confused. Remaining of 1.6% people were other.

### CONCLUSION:

- Overall, 65 % of the people are aware of concept of Green Marketing and Green products.
- Consumers who are in favor of green products are feeling worth buying green products and consumers who rejected Green products find its price too high.
- No significance relationship is visible between income, educational qualification and occupation with respect to awareness about green marketing
- 54% consumers are willing to accept green products because they have future concern about climate change.

### References:

- 1) Book- "The new rules of green marketing"- by Jacquelyn Ottoman.
- 2) Journals - Professor P. Oyewole in the year 2001, paper presents a conceptual link
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## EFFECT OF SHG-BANK LINKAGE PROGRAMME ON INCOME AND SAVINGS OF BENEFICIARIES WITH REFERENCE TO THANE DISTRICT

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### Abstract

*Self-Help Group (SHG) is a small voluntary association of poor people, most preferably from the same socio-economic background. For the purpose of solving their problems through self help and mutual help they get together and form the group. In rural India Self Help Group is good platform for a micro-finance. With the help of this group women's socio-economic empowerment has got increased. Previously, there are many researchers who conducted a study on different aspects related to income and savings generation of rural women and the role of Self-Help group in economic development and it is revealed by review in the present paper. There are three main objectives of this paper. The first objective is to study the Socio-economic profile of sample group members. The second objective is to compare change in income of women group members before & after joining the Self-Help Group. And the last objective is to see the impact of Self Help Group on savings after joining the Self Help Group. With this intention, the primary data was collected from household in Thane District. The data is analyzed with the help of percentage method and pair sample t test. The major findings of the study are the level of income and savings of rural women has increased tremendously after joining Self-Help Group. The study also reveals that majority of young women are actively forming a Self-Help Group.*

**Keywords:** *Self-Help Group, Microfinance, Income, Savings and Rural Women.*

### 1. INTRODUCTION:

Self help group is a group where 10 to 20 members voluntary come together and they start to keep aside fixed sum of money for saving purpose. The members of this group are of homogeneous background that is economically and socially. Generally SHG is formed by poor family members. Hence in the rural, semi urban and urban areas the number of SHG is high. A group could be exclusively male or female, but most probably SHGs are of female members. A mixed group is not so preferable. The members of this group are also called as micro entrepreneur. The group opens an account in a nearby bank. The members of these groups keeps on depositing their money over a few months until there is enough balance in their account so that they can take a loan from that money collected by the group. This helps to the members to become self-employed.

According to PRADAN, "A self-help group is an informal association of 10 to 20 rural women, socio-economically homogeneous, with a background of affinity, who meet regularly to transact the business of Savings and Credit. It mobilizes the savings from individual members and extends credit from the funds so mobilized, to the needy members for consumption and investment purposes. The primary purpose of the SHG is to facilitate the members to save and extend to them credit, as necessary. These funds may be supplemented by funds accessed from external institutions. The group may take up agenda other than savings and credit, for fulfillment of common interests, without diluting its primary focus. The operational guidelines of the group would be generated through participatory processes. For these



purposes the group would maintain an accounting and documentation system as suitable" Particularly this study will be helpful to the rural poor women for getting self-employed, equality, self-reliance and empowerment. It is a window for access to better technology/skill up-gradation.

## 2. OBJECTIVES OF THE STUDY:

The present study pursues to inspect the impact of self-help group on the lives of women in Thane District. The main objectives of the study are given below:

- 1) To study the Socio-economic profile of SHG members.
- 2) To study the effect of SHG Bank Linkage on income of beneficiaries in Thane District.
- 3) To study the effect of SHG Bank Linkage on savings of beneficiaries in Thane District.

## 3. METHODOLOGY:

Thane district comprises of seven talukas that is Kalyan, Murbad, Bhiwandi, Shahapur, Ulhasnagar and Ambarnath. The primary data were collected from directly respondents by pre-designed interview schedule. Total 350 SHG member samples has selected by adopting stratified random sampling method. And the stratas are 7 talukas. For the data analysis, the tool of percentage has been applied.

## 4. REVIEW OF LITERATURE:

For gaining idea about the studies conducted on the research topic and to identify the research gap, review of literature has been made. Some researchers (Nirmala et. al., 2004; Sarath (2001); Fernandez and Ramchandran (1994); Murty et. al. 2013; Gayathiri, 2014; Shrivastav, 2005 and Reddy and Manak, 2005) have done research with the view of considering SHGs as vehicle for poverty alleviation or with micro finance perspective.

N. Manimekalai and G. Rajeswari (2000) in their study "Empower of women through self help groups", studied the women self help group designed by the non-Governmental organizations in the rural area of Tiruchirappali District for the purpose of encouraging rural women through self-employment. The Non-Government Organization namely, Society for Education and Village Action and Empowerment (SEVAE) has been working in 362 villages and helping a total of one lakh women beneficiaries comprising of different avenues of self employment like, petty businesses, processing, production and service units.

Mr. Maunh Sarath (2001) examines the "What is Self Help Group" and proved significance in understanding the basic concept of Self Help Group. Though it is based on the experiences from Combodian situation, it does not create any complexities in Indian context. The article is divided in three sections. The first section covers the definitions & the origin of the concept. The second section describes how to organize SHGs. In a simple and lucid manner the author explains the concept of SHG thoroughly. It also gives characteristics of SHGs as well as advantages of SHGs. The process of evolution of SHG & Federation of SHGs has also been dealt with systematically.

NABARD – On the NABARD Website under the title " Micro Finance Institution in India" a detailed information is given on the emergence of micro finance institutions in the context of prevailing legal and regularity environment for micro finance operations. The text makes it clear that the public as well as private institution in India offer the micro finance services. The classification of micro finance is formal & informal institution is given. According to this classification IDFI, commercial banks, RRBs & co-operative banks are formal. Micro-finance institutions which provides mFI services in addition to their general banking activities. They are referred as Micro-finance service provider. On the other hand informal MFIs undertake Micro-finance services as their main activity. The text also gives information about the requirement of MFIs about capital, foreign investment, deposit mobilization, interest rate, collateral etc. This text focused on the fact that micro finance alone is not sufficient for the empowerment of women.



In conclusion, it can be said that the text has focused on the reality that micro finance is not a new concept but it is being used widely in the past few decade.

Fernandez and Ramachandran (1994) "Self Help Group approach in Karnataka" does not figure on the top of tables published by financial institutions that show the number of self help group formed in each State. This is mainly because the tables capture data after 1991 – 92, When the SHG – Bank linkage Programme was launched by NABARD Myrada, a non - Governmental organization engaged in rural development, promoted several co –operative societies that were enabled to give loans to their members. This categorization has been summarized and adapted from the writings of Stuart Rutherford of Safesave, Dhaka, Bangladesh. In Myrada, the groups are called Self help Affinity Groups (SAGs) to emphasize that membership is based on affinities that pre - date group formation. Large scale group formation with the state as the main promoter tends to lose sight of the affinity dimension. This coupled with grossly inadequate investment in the capacity building of groups, has contributed to undermine the quality and the potential of groups.

Bokil (1999), has prepared a case study on "Women Empowerment through Self Help Group" conducted by development support team, Pune. This study has been undertaken to bridge the gap between existing plentiful literature on rural self help groups and the available scanty literature on urban SHGs. In this case study, the issue of women empowerment has been look through economic involvements. It tries to seek an answer to the question, " Can economic strength give women social, political & psychological power in society? " The DST conducted the survey of 28 groups in Pune. The responses of 208 women were attaining through questionnaire & group interaction. The case study displays positive suggestion that given an opportunity and space women respond very satisfactory and have a desire to change their lives. The women participated in the SHG programme in order to advance a habit of savings, access to easy credit, receive information and knowledge & to raise the interaction with fellow community women.

Kumaret. al.(2015), "An Overview Of Microfinance In India" This paper targets at recognizing the present position and role of microfinance in the development of India. It was studied that SHG's and MFI's are playing a dynamic role in delivery of microfinance services which leads development of poor and low income people in India. Though, slow development of graduation of SHG members, poor quality of group functioning, dropout of members from groups etc., have also been reported different study findings in various parts of the country, which need to be taken into account while designing the road map for the subsequent stage of the SHG programme.

Kondal (2014), "Women Empowerment through Self Help Groups in Andhra Pradesh, India" The foremost discoveries in the study justify the greater role played by the SHGs in increasing empowerment of women, by making them financially strong, as well as it helped them to save amount of money and invest it further development. It is also found that the SHGs created confidence for social, economic self-reliance between the members in two villages. It develops the awareness programs and schemes, loan policies etc. However there is a positive impact of Self Help Groups on Women empowerment in Andhra Pradesh.

## 5. RESULT & DISCUSSION:

Analysis has been divided into two parts: first, analysis of socio-economic profile and second, analysis of effect of SHG Bank Linkage on income of women group members.

  
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## 5.1. Analysis of Socio-Economic Profile:

**Table-1**  
Age of respondents

Age	Frequency	Percentage (%)
21 - 30	99	28.29
31 - 40	153	43.71
41- 50	87	24.86
51 - 60	11	3.14
<b>Total</b>	<b>350</b>	<b>100</b>

(Source: Field Survey)

Table 1, displays the distribution of age of sample respondents. There are total 350 sample respondents. From the table it is found that 43.71% of the respondents are from the age group of 31 to 40 years. Whereas, 28.29% samples are belongs from 21 to 30 age group. And 24.86% respondents come under the group of 40-60 years. Only 3.14% samples are from 51 to 60 age group. The majority of women in SHG are found from the age group of 31 - 40 years.

**Table-2**  
Social Status of respondents

Social Status	Frequency	Percentage
ST	52	14.86
SC	48	13.71
VJNT	41	11.71
OBC	178	50.86
Open	31	8.86
<b>Total</b>	<b>350</b>	<b>100</b>

(Source: Field Survey)

Table 2, refers to the distribution of social status of sample respondents. From the table it is revealed that 50.86% of the respondents are drawn from OBC category followed by 14.86% are from ST, 13.71% are from SC and 11.71% from VJNT category. Whereas, from Open category there are only 8.86% sample respondents. Accordingly, most of the respondents are drawn from socially downtrodden community that is VJNT.

**Table-3**  
Marital Status of respondents

Marital Status	Frequency	Percentage
Married	333	95.14
Unmarried	0	0
Widow	02	0.57
Divorcee	15	4.29
<b>Total</b>	<b>350</b>	<b>100</b>

(Source: Field Survey)

Table 3, refers to the distribution of marital status of sample respondents. The table shows that 95.14% of respondents

are married. 0.57% respondents are widow. And 4.29% of total respondents are of Divorcee. Whereas, there is no one respondent is unmarried. Therefore it clearly shows that there is a majority of married respondents.

**Table-4**  
**Educational qualification of respondents**

Education level	Frequency	Percentage
Illiterate	10	2.86
can read & write	47	13.43
Primary (I-VII)	65	18.57
Secondary (VIII-X)	167	47.71
Higher Secondary (XI-XII)	44	12.57
Graduate & above	17	4.86
<b>Total</b>	<b>350</b>	<b>100</b>

(Source: Field Survey)

Table 4, shows the distribution of sample respondents by their education. It is observed that 47.71% of respondents are of secondary education. 12.57% with higher secondary education, 18.57% are of Primary educated, 4.86% with Graduate & above educated, 13.43% respondents can read and write. And only 2.86% respondents are illiterate. The majority respondents are from secondary education level.

## 5.2. Analysis of Effect of SHG Bank Linkage Programme on Income:

**Table-5**  
**Income of respondents**

Income (in Rs.)	Before joining SHG		After joining SHG	
	Frequency	Percentage	Frequency	Percentage
1- 5000	26	7.43	01	0.29
5001-10000	273	78	147	42
10001-15000	46	13.14	168	48
15001-20000	05	1.43	34	9.71
<b>Total</b>	<b>350</b>	<b>100</b>	<b>350</b>	<b>100</b>

(Source: Field Survey)

Table 5, shows the distribution of sample respondents by their monthly income. It is observed that before joining in SHGs, 7.43% of respondents got less than Rs.5000 followed by 78% of respondents got between Rs.5001 to Rs. 10000. Whereas, 13.14% of respondents got between Rs.10001 to Rs.15000 followed by 1.43% of respondents got above Rs.15001 to Rs.20000. After joining in SHGs, only 0.29% of respondents are getting monthly income less than Rs.5000 followed by 42% respondents gets between Rs 5001 to 10000, 48% of respondents are getting between Rs 10001 to 15000. And 9.71% of respondents are getting between Rs. 15001 to Rs. 20000.

Hence from the table it clearly shows that the monthly income of most of the respondent's has increased because of joining self help group.

Therefore, there is a positive effect of SHG-BLP on income of beneficiaries in Thane District.



## 5.3. Analysis of Effect of SHG Bank Linkage Programme on Savings:

Table - 6

## Classification of SHG Members on the Basis of Monthly Savings of beneficiaries

Sr. No.	Savings (in Rs.)	No. of SHG Families			
		Pre- SHG	%	Post SHG	%
1.	0	177	50.57	0	0
2.	1-50	44	12.57	0	0
3.	51-100	129	36.86	21	6
4.	101-150	0	0	2	0.57
5.	151-200	0	0	153	43.71
6.	201-250	0	0	20	5.71
7.	251-300	0	0	97	27.71
8.	301-350	0	0	04	1.14
9.	351-400	0	0	50	14.29
10.	401-450	0	0	03	0.86
	<b>Total</b>	<b>350</b>	<b>100</b>	<b>350</b>	<b>100</b>

(Source: Field Survey)

Table 6, shows the distribution of sample respondents by their monthly savings. It is observed that before joining in SHGs, 50.57% respondents were not keeping aside money as a saving purpose. Whereas, 36.86% respondents were save money between Rs.51-Rs.100, and only 12.57% respondents saves money between Rs.1 to Rs.50 before joining SHG.

After joining SHG, 43.71% respondents started to save money between Rs.151-Rs.200, 27.71% respondents are making savings between Rs.251-Rs.300. whereas, 14.29% respondents saves money between Rs. 351 - Rs.400, and 0.86% respondents saving is between Rs.401 - Rs.450. The table clearly shows that the monthly savings of most of the respondent's has increased because of joining self help group just because of they have increased their income level.

Therefore, there is a positive effect of SHG-BLP on savings of beneficiaries in Thane District.

**6. CONCLUSION:**

The majority of rural women in Self-Help Group are found relatively from young group. The good thing is found that there is very less percent respondents are illiterate rural women from study area. Whereas, maximum of rural women has done Secondary level education. Most of the respondents are from backward class. The important finding of the study is the level of income of rural women has increased tremendously after joining Self-Help Group comparing to before joining Self-Help Group. And because of the increased income level the respondents started to make savings at maximum level after joining SHG. It shows that Self Help Group is effectively working in the study area.

Self-Help Group is an important technique which is very useful rural women to get a power for their self-supportive activities. Self-Help Group is acting as a platform for providing a micro-finance to rural women. This programme clearly plays a central role for the lives of rural poor women. Self-Help Group key factor is to increase the income and



savings level, and also the standard of living of rural women. It is a ladder for women empowerment. The impact of Self-Help Group is not only on income and savings generation but it is also on enrichment of rural women's self-confidence and economic and social development.

The study reveals that there is a significant improvement in income level as compare to before joining Self-Help Group. From the above, we can conclude that Self-Help Group plays a significant impact on income generation of rural women. It will lead to increase their standard of living, quality of life of their members, self-reliance and decision making power.

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## A study of consumer feedback on provided GITS poha sample

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### Abstract

Food habits and the cooking style and lifestyle have undergone marvelous changes in last decade in India. With Indian becoming more urban these changes in the food habits can be attributed to the factors of double income families, emergence of nucleus families, and emergence of innovative packaged food offering and online food ordering applications. These changes can be seen across the country. Especially with the changes in the work environments and increasing work pressures people have become more inclined towards ready to cook or readymade food items.

The study is an attempt to understand the buyer's perception on ready to eat food products. The objective of the study is to understand the factors influencing the consumption pattern, consumer behavior towards ready to eat food and brand preferences for the ready to eat products.

The study has been done in the city of Pune. The study in descriptive in nature and snowball technique was used to identify the respondents to the study. The responses were collected for products of Gits Foods Company and the study has identified that there is a big potential for the company to grow and it needs to adopt an aggressive approach in the marketplace in terms of promotion and customer reach. The responses also identified that there is a need for more focus on nutritional value per serving.

Top

### Keywords

Ready to Eat Product, Consumer, Sample etc.

Top

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## MANAGING STUDENTS' STRESS IN HIGHER EDUCATIONAL INSTITUTIONS

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Prof. Dr. Kirti Gupta\*\*

### ABSTRACT

*Stress has now become a buzzword among students of Higher educational institutions. If students are not mentally and physically healthy, no society and nation would prosper. The purpose of this article is to explore the causes of stress among students of higher educational institutes and suggest some important strategies which helps in managing stress. This paper collects secondary data to explore the causes of stress among students suggesting strategies for the same. It concludes that teachers and the administrators should know about the stress, stressors and coping mechanisms and should devise some strategies for making the environment of institutes congenial so that they can support and save the young blood of nation.*

**Keywords:** College student, Higher education, Stress, stressors, stress management

#### 1. Introduction

Stress has penetrated so deeply in the lives of college students that it has become an integral part of their academic life. In the cut throat competition and globalization, when students are thriving to achieve success in their respective fields, stress has become an inevitable phenomenon of their life. Everyday students at all levels, especially higher-level institutes are experiencing the consequences of stress in the form of anxiety, frustration and depression which is an alarming situation not only for the college administrators but for the whole society because these youth are the future of our nation. College students remain under huge stress due to heavy expectations imposed on them by their external and internal environment. For many years, it was assumed that student population was getting least affected by the stress and its problems but in today's scenario, stress among students of higher educational institutes become an integral part of their life. Unfortunately, education system also plays a crucial role which leads to increase in stress experienced by the students of higher educational institutes. Therefore, it becomes very essential to study the sources and consequences of stress so that effective strategies can be devised.

#### 2. Theoretical Framework

##### 2.1 Concept of stress

Stress is an inevitable and unavoidable phenomenon of daily routine life. It is a perception of emotional or physical tension. Stress is a subjective phenomenon and the reaction of a person depends how stress is perceived by that person. If it is taken as a challenge then it will lead into positive outcomes like improved task performance and motivation (Rheinberg & Engeser, 2018) and if it is perceived as threat, then it will lead into anxiety and depression, social dysfunction and even suicidal intention (Tang, Byrne, & Qin, 2018). It is quite difficult to define stress as it is the subjective phenomenon which varies person to person. Every individual perceives stress differently and react towards it.

(Greenberg, 2012) define **stress** as the combination of a stressor, stress reactivity, and strain. That is, a stimulus is presented that has the potential to trigger a fight-or-flight response (the stressor) that elicits physiological changes such as increased muscle tension and blood pressure (stress reactivity) that, in turn, results in physical, psychological, or behavioral consequences such as headache or agoraphobia (strain).

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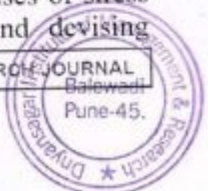
(Lazarus & Folkman,1984) defines, "Stress refers to physiological, behavioral and cognitive responses to events appraised as threatening or exceeding one's coping responses and options."

According to L.M.Prasad Stress can be classified as Eustress which can be defined as the optimum level of stress in an individual which contributes positively in one's performance while another form is Distress which is high level of stress and causes physical, psychological, and behavioral problems in an individual( Prasad, 1984).

## 2.2 Stressor

Conditions or situations that tend to cause are called stressors (Lazarus& Folkman,1984). There are many stressors which cause stress among students at higher level education. Some of the stressors are their own individual stressors or others are organizational, group and extra organizational stressors.

- **Transition in education level:**College students are more prone to stress because of their shifting from school atmosphere to entirely new professional environment where they are supposed to acquire new social skills. The atmosphere of university is entirely different from school level education which has put an external pressure on students They face new academic requirements in the form of pile of assignments, projects, examinations etc. This shifting from school level to college level could cause a high pressure on them as they would encounter different teaching methodologies, Culture and atmosphere and new interpersonal relationships.
- **Home sickness:**Students, in order to gain higher education have left their home and migrate to other cities. Due to these changes, students perceive stress which hampers their mental, physical health. Their social life also gets affected. The physical distance from family members and relatives causes stress as it requires a social adjustment in the absence of their own family members with university life (Kariv & Heiman ,2005). This stress leads to poor performance and lower academic achievements.
- **Personal inadequacy:** Students at college level are supposed to accomplish various assignments, projects, field works, training and the inability to fulfil all these requirements would lead them under great stress.
- **Fear of failure:** In some cases, Parents and institutions exerts so much pressure of success on students that they feel themselves under stress and they fear of getting failed in their life. According to Ang & Huan, increased expectations are responsible for increasing stress level among students (Ang & Huan, 2006)
- **Physical environment:** The physical environment including building, teaching aids, physical location and their transportation means and other facilities provided by the campus aggravated their stress levels. The college campus facilities, classroom ambience and hostel facilities give impulse to perceive stress among them.
- **Lack of finances:** Students who get financial help from their parents do not want to burden their parents due to which they feel guilty about spending their parents' money and started Working part-time which takes away them from the time needed to study due to which they feel under great stress. Sometimes, poor financial condition of family and burden of educational loans leads to huge stress among students due to which they feel huge emotional stress and develop bad habits like smoking and intake of alcohol.
- **Interpersonal relationships:** Factors like relationships with faculty members also aggravates stress (Misra & McKean,2000). The Social interactions including interactions with faculties and their behavior and attitude, Interpersonal relationships with peers and their intolerable behavior also leads them into great stress
- **Peerpressure:** Students feel external pressure exerted by their peers which is an additional stress. They spend maximum time together in college campus and in an effort to maintain friendships they get deviate from their prime responsibilities like study and they waste their useful time in appeasing their peers. Sometimes they are pressurized to get engage in those activities which are outside their comfort zone due to which they feel acute stress.
- Due to stress, the psychological and physical health get deteriorated which results in low concentration on studies, poor appetite, frustration, anxiety, deprive of sleep and get prone to practice some health risk habits like smoking, intake of alcohol and drugs. Therefore, it is very important in present scenario to explore the various causes of stress levels among college students and devising





some strategies to cope up with this inevitable mechanism.

### 2.3 Impact of stress

It is very necessary for the college administrators as well as faculty members to recognize the symptoms of stress among students. If stress is at optimal level, it will help students achieving their goals and would enhance their performance but if it would exceed above optimal level then it would lead into many destructive symptoms (Prasad,1984).

#### 1) PHYSICAL SYMPTOMS

- Sweating
- Increased Heart Rate
- Increased Blood Pressure
- Tension
- Headaches
- Stomach aches
- Fatigue
- Shaking or twitching
- Unusual weight changes in body
- Nausea
- Disrupted digestion

#### 2) EMOTIONAL SYMPTOMS

- Hostility
- Feeling of Helplessness
- Loneliness
- Feeling of sadness
- Loss of interest
- Restlessness
- Impatient

#### 3) COGNITIVE SYMPTOMS

- Memory loss
- Loss of concentration
- Negative outlook
- Chronic worrying
- Reduced Judgment
- Impaired speech
- Unwanted thoughts

#### 4) BEHAVIOURAL SYMPTOMS

- Change in sleeping time
- Change in eating habits
- Drug or alcohol abuse
- Social isolation
- Decrease in Performance
- Avoiding responsibilities
- Suicidal intention

### 2.4 Strategies for managing stress

There are some strategies which should be devised to minimize stress level among students:

- Time management:** Effective use of time is one of the most appropriate technique in reducing stress and relieving unnecessarily last-minute burden for the college students. They must plan their schedule and should try to stick on that timetable.
- Physical Exercise:** It is very important for the college students to exercise regularly as it boosts overall health. It helps in reducing stress level and improves quality of life physically and mentally. They should take out time to get some air and exercise due to which they feel less stressed throughout day.
- Organizing:** Organizing is an effective strategy for the college students to keep themselves away from stress. College students can reduce the level of stress to a great extent by organizing their academic notes and tasks which will also boost their self-confidence and they will feel happier and more relaxed.
- Positive Attitude towards life:** Students should try to have a positive outlook for their life because focusing on the negative aspects of a situation, helps in increasing the mental stress.
- Good sleeping habits:** students should practice good sleeping habits as sleep deprivation could increase the level of mental stress.
- Good Eating habits:** students should eat well and at proper time as it helps in reducing stress level.
- Relaxation techniques:** Meditation is a very powerful tool to handle stress. Mindfulness meditation helps students not only in reducing stress but it also increases their concentration level.
- Social networking:** students should stay in connect with their family members and friends. It helps in building emotional support to get through some stressful situations.
- Supportive Environment:** College administration and faculty members should provide supportive environment to students. It will include providing adequate classrooms, teaching aids, library facilities, transportation facilities and hostel facilities.
- Counseling:** Students should be provided with regular campus counseling services where they would be able to discuss their problems openly with the counselor. This counseling helps the





students in obtaining the advice which helps in reducing stress.

### 2.5 Role of HEIs in managing student stress

College administration should be very attentive towards the stress management of their students in the following ways:

- a. College administrators should maintain adequate student -teachers' ratio which will help in maintaining healthy interpersonal relationships between students and teachers and also it will increase the confidence of students in their teachers.
- b. Effective measures should be taken to assign teacher mentors for a group of students. Each teacher should be assigned with a specific number of students for mentoring.
- c. College administrators should organize such activities which helps them in building social relationships and helps them in getting adjust in new surroundings of college. They should learn socialization due to which they feel more comfortable with new teachers and students.
- d. Administrators of Higher educational institutions should appoint professional counselors for students to share their concerns and problems.
- e. Measures should be taken to build up rapport with parents of students so that problems related with students can be discussed in free environment.
- f. Mental and Physical Fitness sessions should be organized by the college for their students.

### 3. Discussion

The mental health of students of higher educational institutes has become a serious issue for the researchers around the globe due to increased number of suicides among students. According to data compiled by the National Crime Records Bureau one student commits suicide every hour in India which is an alarming situation not only for the society but for the whole nation. According to Lancet report 2012, India has the highest world record of suicides of youth aged between 15 to 29 which illustrated the urgent need of interventions. The data revealed by NCRB shows that in 2018, 10,159 students commit suicide which has an increase from 9,478 in 2016. In Maharashtra alone, 4 suicides occurred everyday which is the highest number in India. There was a rise of 26% in the

suicidal cases from period 2014-18. According to survey conducted by Lokniti- Centre for the study of developing societies, New Delhi, 4 out of 1 student went through depression and suicidal thoughts. Counsellors revealed the facts that college students failed to cope up with the examinations pressure and also career insecurities due to which they feel stress. Institutions and families failed to provide them support which students expect during their stressful time due to which they get deviate towards unhealthy activities like drugs and alcoholism. Thus, it has become a very important concern for the college administrators as well as for the society to look after this issue urgently and provide suitable support to the young blood which is life line of a country.

### 4. Conclusion

Stress is a very big word with even having bigger impact but small changes in daily routine life would be able to minimize its side effects. In the 21st century, the word stress has become inevitable but its consequences in the form of destructive outcomes are very dangerous. College is a time of life when students come out from their comfort zone and start their new beginning with many career expectations. They have encountered new environment. Managing stress is the responsibility of one's student but faculty members and college administration should also make some arrangements so that acute symptoms of stress could be recognized among students when actually they are struggling. Stress is a common problem among many students. It can only be managed through coping mechanisms. The immediate support from the college administrators and the families could save the lives of many students who are suffering from the ill effects of stress. Higher educational institutions that will recognize the importance of stress management will have more successful students.

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