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(AISHE Code : C - 41293, PUN Code - IMMP014030)



Metric 3.3.2

**Number of Books and Chapters in Edited
Volumes/Books Published and Papers Published in
National/ International Conference Proceedings**

2020-21




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Criterion III: - Research, Innovations and Extension
Key Indicator: 3.3 Research Publications and Awards
3.3.2 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during 2020-21

Sr. No.	Name of the teacher	Title of the book/chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	ISBN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Dr. Asita Ghewari	Statistical Methods and Testing of Hypothesis	NA	NA	NA	National	978-93-8950-356-2	DIMR	Techknowledge
2	Prof. Kavita Pareek	NA	Financial Management	NA	NA	National	978-81-19070-11-4	DIMR	Redshine

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3	Prof. Nadeem Kazi	Unleash The Unstoppable	NA	NA	NA	National	978-9352792504	DIMR	Nadeem Kazi; First edition (1 January 2020)
4	Dr. Patil Deepali Sandip	Splint International Journal Of Professionals	A study of consumer feedback on provided GITS poha sample	NA	NA	International	2349-6045	DIMR	Dr. Barals Research Foundation



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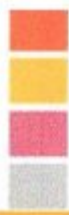
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5	Dr. Poonam M. Khadke	Aarhat Multidisciplinary International Education Research Journal (AMIERJ)	Effect Of SHG-Bank Linkage Programme On Income And Savings Of Beneficiaries With Reference To Thane District	NA	NA	National	2278-5655	DIMR	Aarhat Journals
6	Nilam Naidu	JournalNX-A Multidisciplinary Peer Reviewed Journal	A study of consumers attitude towards green marketing	NA	NA	International	2581- 4230	DIMR	Novateur Publication



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9	Prof. Swati Bhalerao	SBS International Research Journal of Management Studies	Relationship between Wholesale Price Index and Gross Sales of Income Mutual Funds in India	NA	NA	International	2454-7050	DIMR	Sinhgad Business School



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7	Nilam Naidu	JournalNX-A Multidisciplinary Peer Reviewed Journal	A Study of innovative financial engineering in financial service sector	NA	NA	International	2581-4230	DIMR	Novateur Publication
8	Dhananjay Bhavsar	ICEM-2021	A Study of Satisfaction among Employees regarding Selection & Recruitment at Royal Enfield Kings Autoriders	NA	NA	International		DIMR	ICM



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Prof. Dr. Asita S Pawar (Ghewari), Prof. Dr. Satish N Pawar, Prof. Mahendra Kanooja

F.Y. B.Sc. (Computer Science) Semester II – Mumbai University

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Nadeem has coached Indian Army, Audi, Dell, Porsche, Lamborghini, Volkswagen, Skoda, John Deere, FIAT, Jio and many other corporates and institutes.

By now, he has conducted > 800 Seminars & has trained >85,000 People from over 70 Countries.

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EFFECT OF SHG-BANK LINKAGE PROGRAMME ON INCOME AND SAVINGS OF BENEFICIARIES WITH REFERENCE TO THANE DISTRICT

Ms. Poonam M. Khadke

Research Scholar

Guided by: Dr. Shrikrishna S. Mahajan

*Department of Commerce & Management,
Shivaji University, Kolhapur.*

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's , 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
Total	350	100

(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
Total	350	100

(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
Total	350	100

(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
Total	350	100

(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
Total	350	100	350	100

(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
	Total	350	100	350	100

(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 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.

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.



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



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

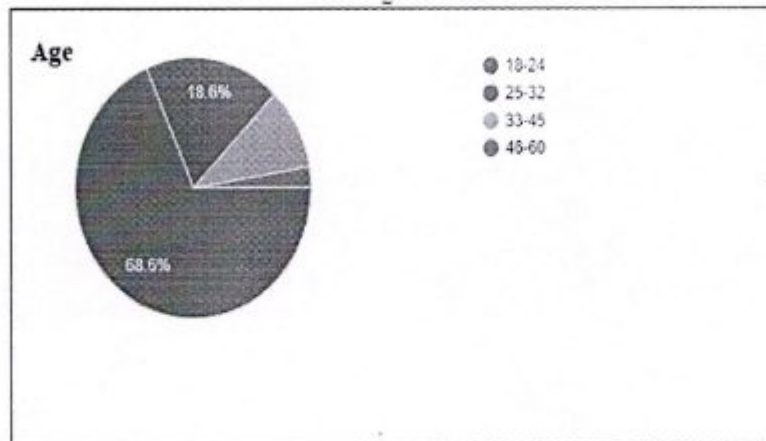
Out of 160 people 159 responded to the questionnaire. The peoples have been selected by random sampling method.

DATA ANALYSIS

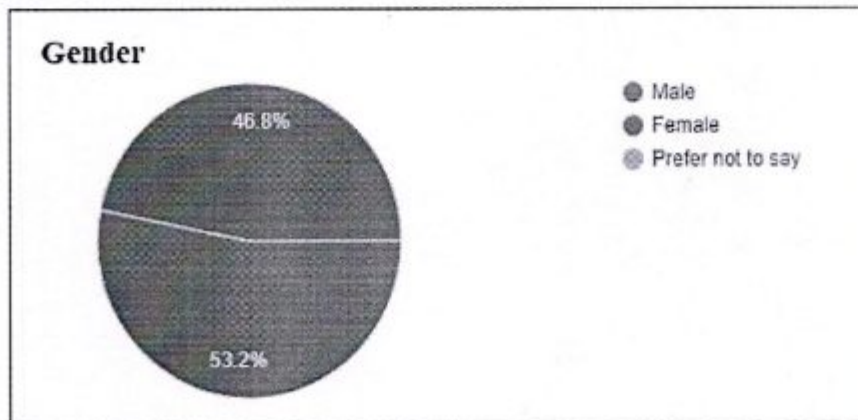
The analysis of the collected data is done based upon the parameters as shown below [Sample size = 159] Out of total sample population i.e. 159 respondents, 53.2% were male and 46.8% were female and female respectively.



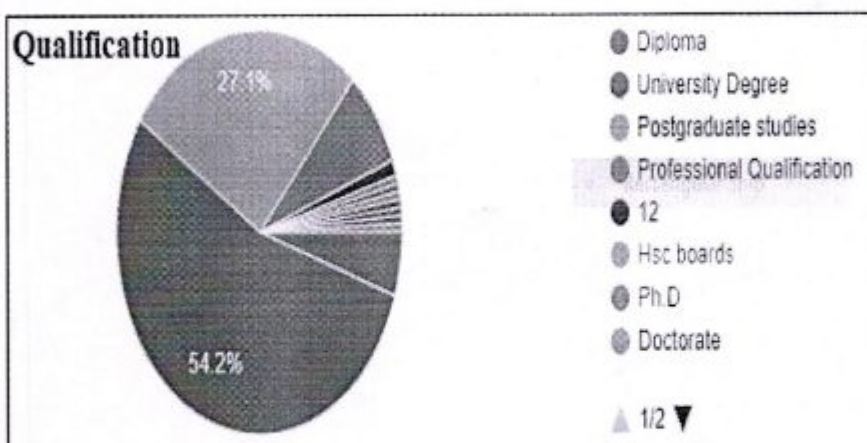
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Majority of the sample population i.e. 159 respondents were from the age group of 18-24 and contributed 68.6% of the total sample size. 18.6% of the population was between the age group of 25-32 and 11.5% of population was between the age group of 33-45.



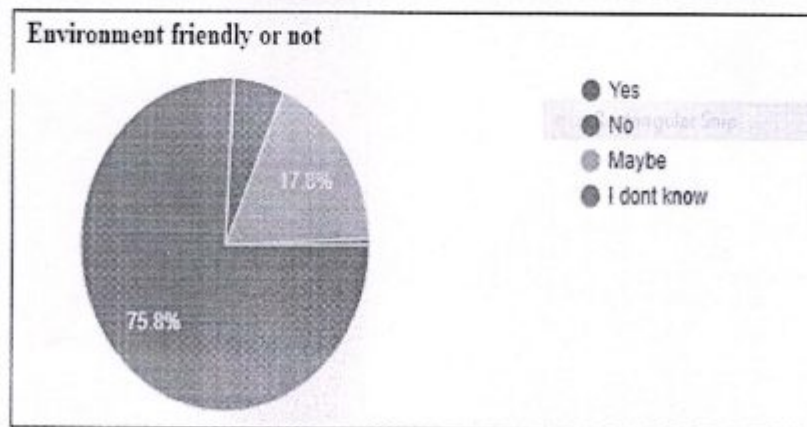
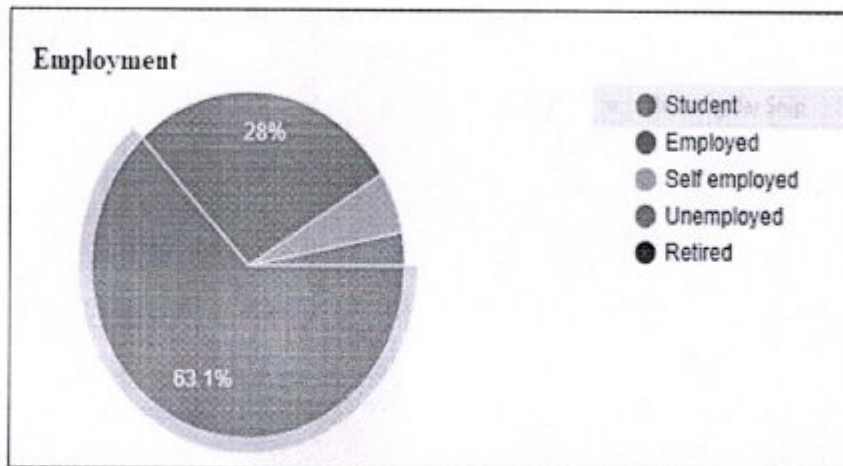
Out of total 159 respondent, 54.2% were UG student and 27.1% were PG student and remaining were professional, Ph.D., Doctorate, Diploma.



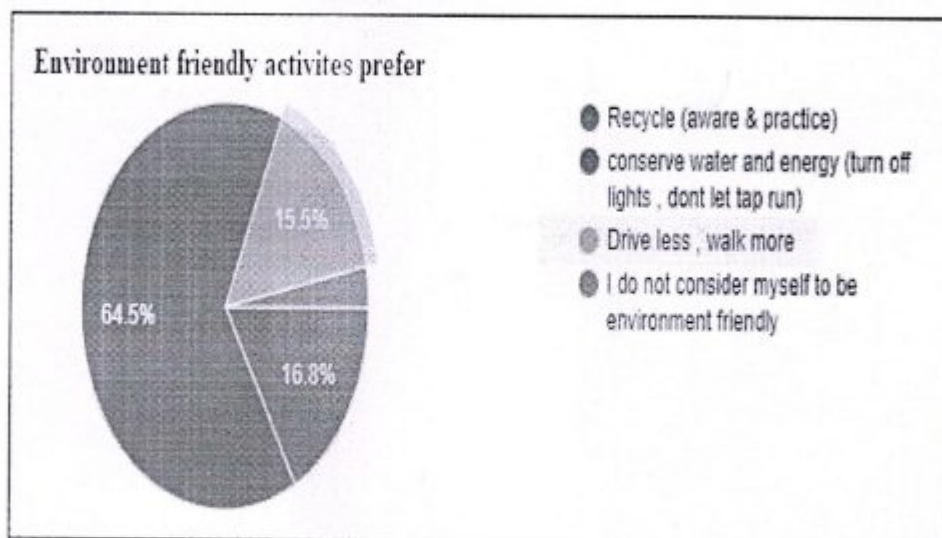
From the 159 respondents, 63.1% were students and 28% were employed. Whereas the remaining were 6.9% were self-employed and 2% were Unemployed.

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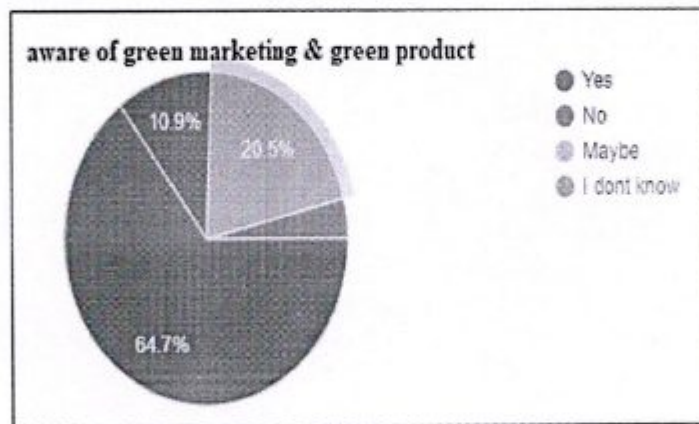
Among 75.8% people believe in environmentally friendly as the respondent of 159. 17.8% were confuse regarding environmentally friendly product use or not. Some like 2% people not believe in environmentally friendly.



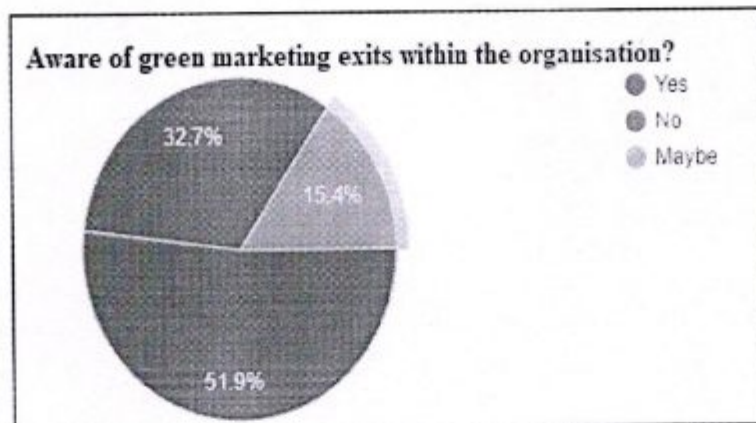
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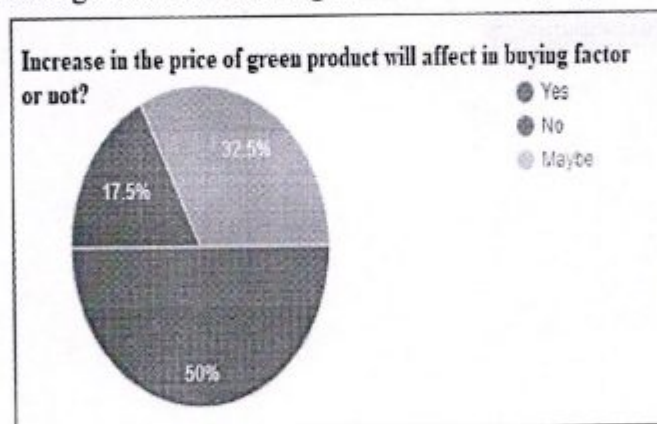
As the research happens among 64.5% people prefer to do environment friendly activity as conserve water and energy (turn off lights, don't let tap run). 15.5% people prefer to do drive less and walk more as the environment friendly activity. As 16.8% of people prefer to do recycle as the environment friendly activity. 3.2% of people do not consider as environment friendly activities.



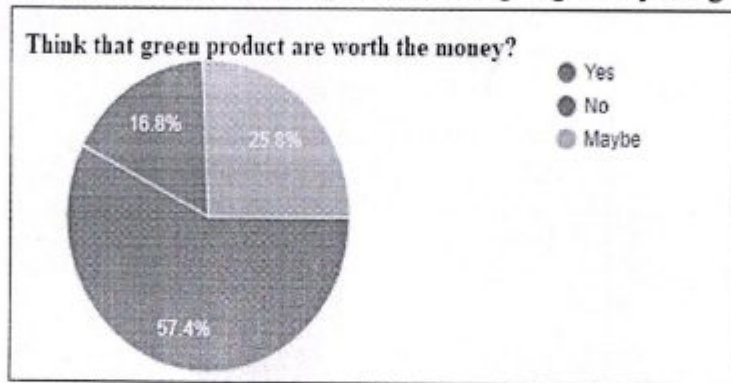
Among 64.7% were aware of green marketing and green product as the same 10.9% were not aware of green product and green marketing. 20.5% people were confused about green product and green marketing. 3.9% people do not know about green product and green marketing.



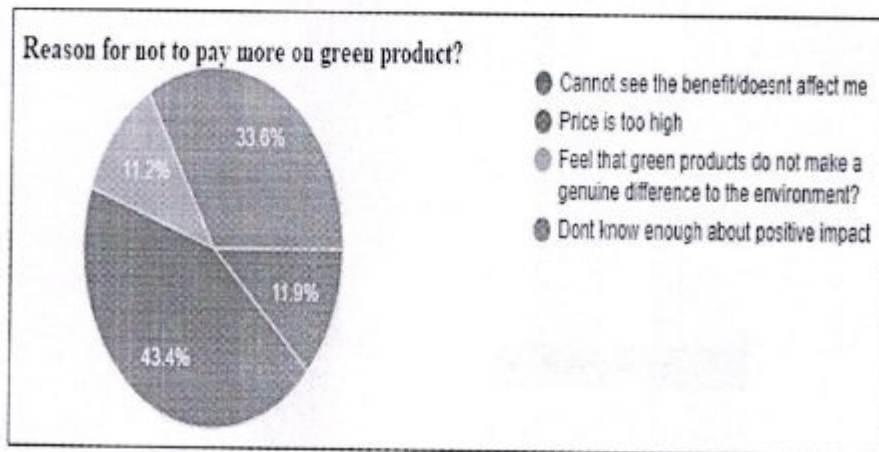
As the research 51.9% of people were aware that green marketing exit in the organization .32.7% of people do not know about the green marketing exit within the organization.15.4% people were confuse of it.



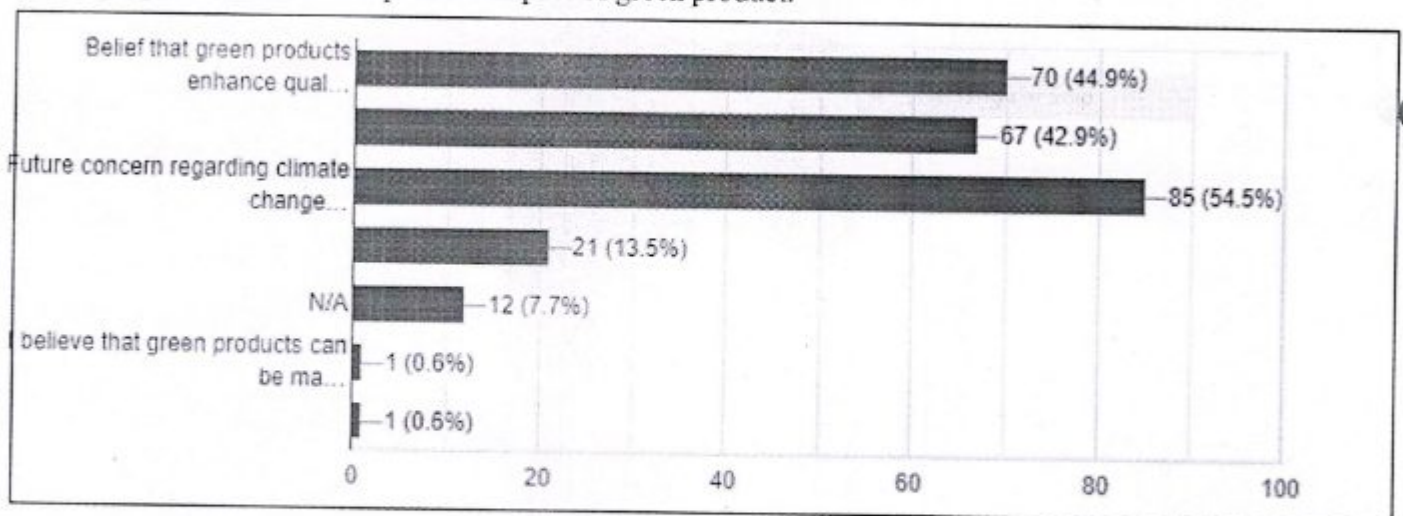
Among the responds of 159 peoples 50% of people will buy the green product as price were increase and 32.5% were confuse about to buy or not. Where 17.5% peoples were not going to buy the green product.



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.

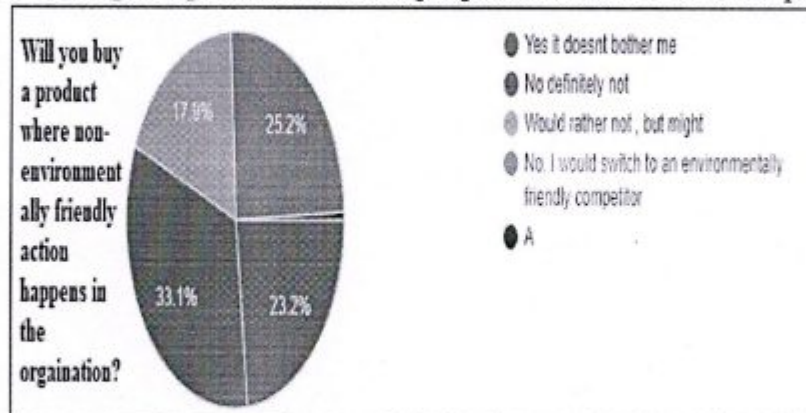


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Reason for pay more for green products?

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.

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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



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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 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

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.

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"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 chisquare 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 (α) 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 ^a	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 Cranach's Alpha (α) 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	.100	-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 ^a	.163	.149	2.88230

a. Predictors: (Constant), SELECTION

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.891	1	93.891	11.302	.001 ^b
	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 ^a	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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05

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

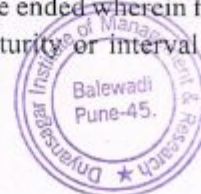
Inflation is consistent increase in general price level in any economy. Consumer Price Index(CPI) and Wholesale Price Index(WPI) are two indices commonly used for measuring inflation rate in the economy. However this study is restricted to explore the relationship between WPI and the gross sales of Income 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 29th 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 29th 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 its 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_0 : There is no significant relationship between Wholesale Price Index and gross sales of Income Mutual Funds in India.

H_1 : 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 and the mutual funds data from www.amfiindia.com. Thus the research is entirely based on the Secondary data. Following is the data, which were downloaded on 12th 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	50.13
Jan'13	108.0	50.29



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Month & Year	WPI	Gross Sale of Income Funds ('000 Cr)
Feb'13	108.4	56.39
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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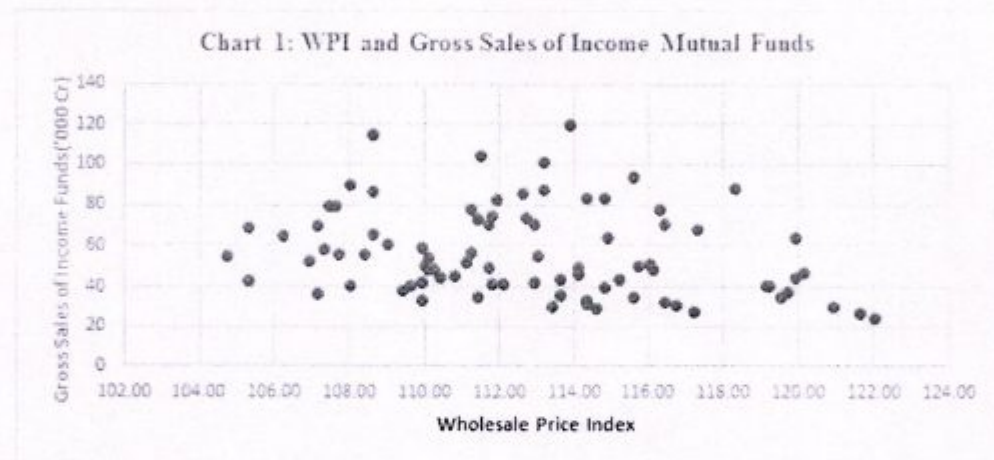
Month & Year	WPI	Gross Sale of Income Funds ('000 Cr)
Jun'16	111.7	49.56
Jul'16	111.8	74.61
Aug'16	111.2	77.80
Sep'16	111.4	73.31
Oct'16	111.5	104.79
Nov'16	111.9	83.07
Dec'16	111.7	70.48
Jan'17	112.6	86.03
Feb'17	113.0	55.22
Mar'17	113.2	87.63
Apr'17	113.2	101.58
May'17	112.9	70.46
Jun'17	112.7	74.31
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

Source: www.rbi.org and www.amfindia.com


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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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