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CONTENTS

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INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

SCOPE FOR FURTHER RESEARCH

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CUSTOMER SATISFACTION TOWARDS KINGFISHER BEER IN PULICHERLA MANDAL

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ABSTRACT

Customer satisfaction is a measurement of how pleased customers are with a particular product or service. Satisfied customers are likely to make repeat purchases and often refer others. In this paper we have taken 100 respondents to find out their opinion about beers. Finally we find that the Most of the customers are satisfied with the overall performance of the product, and the customers prefer strong and premium type beers, Products like blue, ultra and Lager have got a least preference among Kingfisher products. It has been observed that the product is having a peak demand during weekends.

KEYWORDS
customer satisfaction, performance, types of beer, market share, growth rate.

INTRODUCTION

Companies in this industry sell beer, wine, and liquor products from physical retail establishments. No major US companies dominate; individual states have different laws regulating liquor stores, complicating the ability to form national chains. The US beer, wine, and liquor store industry includes about 30,000 stores with combined annual revenue of about $45 billion. Key growth drivers are consumer income, new products, and personal tastes.

COMPETITIVE LANDSCAPE

Personal income, consumer tastes, and entertainment trends drive demand. The profitability of individual companies depends on effective marketing and competitive pricing. Large companies offer wide selections and deep discounts, but small companies compete by offering specialized merchandise, providing superior customer service, or serving a local market. The industry is highly fragmented: the top 50 companies account for 20 percent of sales. Liquor stores compete directly with grocery stores, warehouse clubs, convenience stores, and gas stations, and indirectly with restaurants, bars, and other establishments that serve alcohol.

PRODUCTS, OPERATIONS & TECHNOLOGY

Distilled spirits (liquors) account for 40 percent of sales, wine for 30 percent, and beer and ale for 25 percent; other products include groceries, cigarettes, and cigars. The liquor (or hard liquor) category includes gin, vodka, rum, whiskey, brandy, and liqueurs. State laws dictate the type of alcohol sold in a particular venue. In some states, only liquor stores can sell hard liquor.

GROWTH RATE OF BEER IN INDIA

People around the world have always banked upon beer to quench their thirst. Change in demography, a better standard of living and a myriad of choices that 21st century Indian enjoys, beer has made inroads into India in last decade. Beer consumption, which once was considered as frivolous, now typifies a drastic lifestyle shift in an apt manner. Consumption in India has increased into double digits in last decade. The nation enjoys a consumption rate that stands at 1.7 Litres/Year/Person, and a Compound Annual Growth Rate (CAGR) of 10 per cent over the last 5 years. This ready acceptance of beer as a hearty beverage among people from various age groups has expedited the burgeoning of indigenous Indian beer brands. Be it internationally the renowned Kingfisher beer, the global player such as Carlsberg and Tuborg, a more subtle one which goes by the name of Cobra or Kalyani Black Label which is one of India's oldest lagers and more popular in Eastern India; people have acquired the smooth, mellowed taste of beer. Take a look at the following statistics which substantiate this paradigm shift in the Indian beer market: Swiss financial services firm, UBS, estimates the Indian beer market recorded revenue CAGR of 27% between FY02 and FY12 to $2.2 billion. The states of Karnataka, Maharashtra, Tamil Nadu, Andhra Pradesh and Goa are the fastest growing markets in India. UB (Kingfisher's parent company) – along with Millennium Alcobev – and SABMiller account for nearly 85% of the Indian beer market. With Asia's third largest economy catching up with the world vis-à-vis beer consumption, SABMiller, the world's second-largest brewer, plans to invest Rs. 440 crore in its unlisted Indian arm to expand capacity. What might follow next should not be a surprise. With people from a younger age bracket acting as an impetus in driving the sales of beer across India, it is simply a matter of time before more companies get on-board to explore the nascent Indian beer market and hence contribute to the exponential growth taking place within the next couple of years.

Arnav, a college student says: "Beer is the best thing that has happened to the college goers. It helps you take the edge off without any serious side effects. Cheers to that!" It is not just the male populace that is enamored by beer. Miss Girdhar, a corporate employee, says: "A pint of beer is a perfect after-work companion for me. Be it my home or clubs, beer just makes the cut. It is easy on your senses and affordable unlike whiskey or wine which leaves you sloshed and burns a hole in your pocket." Another important factor contributing to the increase in beer consumption is the variety of beer bars in India. The *Beer Café* and the *Pint Room* are two major players which dominate the market. Then there are the waterholes that cater to people from different walks of life. But does this indicate that people have finally broken the shackles of pretence and have indeed matured enough to make their own decisions when it comes to consumption

of alcohol based drinks? Have we crawled out from the abyss of pseudo-ethos and have embraced the reality of 21st century? The quandary engenders from our thought process which is struck between personal appeasement and dogmatic outlook of Indian society. People from different schools of thought emphatically state their view when it comes to beer consumption. Beer enthusiasts love this brewed benediction for multiple reasons: "I just can't do without a beer," says Sahil, an engineering graduate. Next in line are the people who accept the fact that drinking beer is fine and the whole debate about drinkers and anti-drinkers has been blown out of proportion: "It is a personal choice. You can't really dictate people what to do and how to their lives," states Mr. Biswas. Then there is the bloc of anti-drinkers whose scathing remarks about beer consumption might leave a bad taste in the mouth. Mr. Arora says: "Another west aping tendencies of 'modern people' who love to be rebels. Just wait and watch how this habit turns into a Pandora box." These views might sound poles apart but there is a middle ground here. There is an equilibrium plane, which has been overlooked due to the lack of inclusive thinking. People who are against beer consumption need to realize that taming thought processes and choices are the worst thing that can happen to a human. You can advise them, council them but imposing personal will on others is not an ideal solution. For the beer connoisseurs, this might sound blunt around the edges but drinking beer is perfectly acceptable when you restrain yourself from over indulgence.

GROWTH RATE OF BEER IN ANDHRA PRADESH

The Andhra Pradesh Beverages Corporation Limited (APBCL) was established in the year 1986 as a fully owned under taking of the Government, with the main objective of supplying hygienic packed arrack to the licensees and is incorporated under Companies s Act, 1956. The Corporation had set up 22 field units for carrying arrack operations at various district locations with a total capital outlay of Rs. 32.65 crores, which includes buildings and civil works. The various fixed assets like Plant and Machinery other than buildings valued at Rs. 24 .70 crores were transferred to the Corporation in the form of Debt and Equity in the ratio of 2:1. The authorized share capital of the Corporation is Rs.10 Crores and the paid up share capital as on date is Rs.833.37 lakhs. The erstwhile Arrack Bottling units are converted into IML Depots for the wholesale trading activities of IML & BEER.

OBJECTIVES

1. To measure the level of satisfaction of the customers towards kingfisher beer.
2. To know the views of the customers towards product performance.

METHODOLOGY

DATA SOURCES

- **SECONDARY DATA:** A part of data is also gathered through the secondary source which includes company website, magazines and other published articles and text books.
- **PRIMARY DATA:** Majority of primary data is gathered by making a sample survey of 100 respondents.
  - **Research design** : Descriptive research
  - **Research approach** : Survey method
  - **Research instrument** : Questionnaire
  - **Sampling Plan:**
    - **Sampling unit** : Customers of Beer
    - **Sampling size** : 100
    - **Sampling technique** : Convenience sampling
    - **Statistical tool** : Pie charts and Tables

LIMITATIONS OF THE STUDY

- Respondent's inability to give correct answers due to lack of information, forgetfulness of unwillingness to give correct answers.
- The project based on interview methodology by structured questionnaire and the personal skills of the under taking the project also affect the result
- Financial constraint has limited the survey.

REVIEW OF LITERATURE

Crosby (1981) defined Quality as consistency with fixed specifications and this agrees with Karim's definition (1996), who defined Quality as anything that accords with the characteristics of the product to meet the external clients' needs. In addition, the product quality differs from that of a service as the earlier is tangible, whereas the latter is intangible. Service is also defined differently. The American Society for Marketing, for example, defines service as activities or benefits that are offered for sale or that are offered for being related to a particular product.

Kotler (2003), defined service as 'any behaviour or act based on a contact between two parties: the provider and the receiver, and the essence of this reciprocal process in intangible.

Hakesver (2000) looked at service as a set of economic activities that provide time, location form and psychological benefits.

Beer (2003) defined service as a set of characteristics and overall properties of the service which aim to satisfy the clients and meet their needs.

Walfried, et.al.(2000) defined service as a set of characteristics that meet the clients' needs, strengthen the links between the organization and them, and enhance the clients' value as well.

Kolter and Armstrong (1999) defended the customer satisfaction as the customer's perception that compare their pre-purchase expectations with post purchase perception.

Oliver (1997, p. 13) defines satisfaction as "the consumer's fulfillment response", a post consumption judgment by the consumer that a service provides a pleasing level of consumption-related fulfillment, including under or over-fulfillment.

Oliver (1981) point of view Customer satisfaction is the evaluation a customer makes to a certain exchange, which reflects the relation of the customer's expectation and their real perception to products and services they receive. Some researchers think customer satisfaction can be measured. For example: Caepiel (1974) suggested using overall measurement to record customers' response to different attributes of products and services.

Kuo (1996) recognized seven factors that influence customer satisfaction: service content, price, convenience, corporate image, equipment, staff and procedure.

Huang (1998) also defined five factors used to evaluate customer satisfaction: product, service, staff, overall performance of products, and closeness to expectation.

DATA TABULATION AND ANALYSIS

BEER YOU WOULD LIKE TO PREFER IN KINGFISHER

Strong	Premium	Ultra	Blue	Premium
61	20	6	4	9

Inference: - From the above chart we can conclude that most of the customers (61%) prefer Kingfisher Strong.

REGULARITY IN CONSUMPTION OF KINGFISHER BEER

Daily	once a week	Twice a week	Once a month	Occasional
07	53	12	19	09

Inference: - From the above chart we can conclude that most of the customers (53%) are consuming beer once a week.

SATISFACTION LEVEL TOWARDS ALCOHOL PERCENTAGE

H satisfied	Satisfied	Moderate	Dissatisfied	H dissatisfied
15	47	23	13	02

Inference: - From the above chart we can conclude that most of the customers (47%) are satisfied with the level of Alcohol Percentage.

SATISFACTION TOWARDS QUALITY AND TASTE

H satisfied	Satisfied	Moderate	Dissatisfied	H dissatisfied
49	23	21	07	00

Inference: - From the above chart we can conclude that most of the customers (49%) are highly satisfied with quality and Taste.

SATISFACTION TOWARDS PRICE

H satisfied	Satisfied	Moderate	Dissatisfied	H dissatisfied
19	52	27	02	00

Inference: - From the above chart we can conclude that most of the customers (52%) are satisfied with the product price.

SATISFACTION TOWARDS AVAILABILITY

H satisfied	Satisfied	Moderate	Dissatisfied	H dissatisfied
72	21	07	00	00

Inference: - From the above chart we can conclude that most of the customers (72%) are Highly Satisfied with the product price.

LOCATION OF PURCHASE

Wine shop	Club	Bar & Restaurant
76	03	21

Inference: - From the above chart we can conclude that most of the customers (76%) are purchasing kingfisher beer at Wine shop.

SOURCE OF AWARENESS

Hoardings	Wall paintings	Friends	TV ads	Print media
13	17	21	43	06

Inference: - From the above chart we can conclude that most of the customers (43%) are aware of Kingfisher through Television Ads.

OVERALL SATISFACTION TOWARDS KINGFISHER BEER

H satisfied	Satisfied	Moderate	Dissatisfied	H dissatisfied
41	37	15	07	00

Inference: - From the above chart we can conclude that most of the customers (41%) are Highly Satisfied with the product price.

TESTING OF HYPOTHESIS

CHI – SQUARE TEST

Null Hypothesis (Ho): Customer satisfaction level is independent on age group.

Condition: If chi-square observed is greater than chi-square calculated, then accept Ho, otherwise we reject

Age Group	Highly Satisfied	Satisfied	Moderate	Dis-satisfied	Highly Dissatisfied	Total
21 – 25	**23**	**20**	**7**	**03**	**00**	**53**
26 – 29	**17**	**16**	**5**	**02**	**00**	**40**
>30	**01**	**01**	**3**	**02**	**00**	**07**
Total	**41**	**37**	**15**	**07**	**00**	**100**

Oi	Ei	(Oi-Ei)^2	(Oi-Ei)^2/Ei
23	21.73	1.61	0.07
17	16.40	0.36	0.02
01	2.87	3.49	1.21
20	19.61	0.15	0.007
16	14.80	1.44	0.09
01	2.59	2.52	0.97
07	7.95	0.90	0.11
05	6.00	1.00	0.16
03	1.05	3.80	3.61
03	3.71	0.50	0.13
02	2.80	0.64	0.22
02	0.49	0.24	0.48
00	00	00	00
00	00	00	00
00	00	00	00
Total			**7.07**

Chi - square Formula : (Oi-Ei) ^2/Ei

Chi - square calculated value : 7.07

Chi - square observed value : 15.51 @ 5% level of significance

Inference: Since calculated value which is 7.07 is less than the observed value which is 15.51 at 5% level of significance. So, we accept null hypothesis. There is no significance relation between customer satisfaction level and age group.

FINDINGS

1. Most of the customers are satisfied with the overall performance of the product.

2. Many of the customers prefer strong and premium type beers.
3. Products like blue, ultra and Lager have got a least preference among Kingfisher products.
4. It has been observed that the product is having a peak demand during weekends.

SUGGENTIONS

1. Since the product has got a positive response from the market, the firm has to pay a greater attention in maintaining consistency in all aspects of the product in order to retain existing customers and to attract new ones.
2. The company should also concentrate on other products of the brand like blue, ultra and Lager so as to increase its sales revenue.
3. There is a great demand towards the product during weekends. So, it is recommended to maintain sufficient stock to meet the requirement.

CONCLUSIONS

Most of the customers are satisfied with the overall performance of the beer, they are giving more priority prefer strong and premium type beers like blue, ultra and Lager have got a least preference among Kingfisher products. We observed that the product is having a peak demand during weekends

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AN IMPROVED CONSTRUCTION TECHNOLOGY AND MANAGEMENT (CTM) SYSTEM

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ABSTRACT

Construction management or construction project management (CPM) is the overall planning, coordination, and control of a project from beginning to completion. CPM is aimed at meeting a client's requirement in order to produce a functionally and financially viable project. Cost is one of the primary measures of a project's success. This is true, especially for public projects in developing countries like India, because public construction projects in these countries are executed with scarce financial resources. In this paper we proposed an improved budget oriented scheme in Construction Technology and Management (CTM) system. Our proposed scheme solved the cost overgrow problem and improved the overall effect of the construction industry projects.

KEYWORDS
CTM, Cost Overgrow, Construction Industry, CPM.

INTRODUCTION

A construction manager should have the ability to handle public safety, time management, cost management, quality management, decision making, mathematics, working drawings, and human resources. The Construction Management Association of America says the 120 most common responsibilities of a Construction Manager fall into the following 7 categories: Project Management Planning, Cost Management, Time Management, Quality Management, Contract Administration, Safety Management, and CM Professional Practice. CM professional practice includes specific activities, such as defining the responsibilities and management structure of the project management team, organizing and leading by implementing project controls, defining roles and responsibilities, developing communication protocols, and identifying elements of project design and construction likely to give rise to disputes and claims [1-2].
Cost is one of the primary measures of a project's success. This is true, especially for public projects in developing countries like India, because public construction projects in these countries are executed with scarce financial resources. Most literature review on construction projects suggested that the common criteria for project success are generally considered to be cost, time and quality. In India, the present state of the construction industry falls short of meeting domestic and international quality standards and the performance demand expected from the sector. Construction projects have problems with construction techniques and management as well as limitation of funds and time. The critical problems are inability to complete the projects on schedule; low quality work and cost overgrow. In general, most construction projects experience time overgrow and cost overgrows during their execution phase [3-4].
This paper proposed an improved CTM system for identifying the main causes of cost overgrow and their overall effects for public building construction projects and the related responsible party to the causes of cost overgrows.

BACKGROUND ON CTM

CONSTRUCTION AS AN INDUSTRY

The construction industry is composed of five sectors: residential, commercial, and heavy civil, industrial, and environmental. A construction manager holds the same responsibilities and completes the same processes in each sector. All that separates a construction manager in one sector from one in another is the knowledge of the construction site. This may include different types of equipment, materials, subcontractors, and possibly locations. In 2010 the Chartered Institute of Building published its construction management definition based upon the Institute's 45,000 members and the work they do. The designation Chartered Construction Manager is available to full corporate members (MCIOB) and fellows (FCIOB) of the Chartered Institute of Building [1] and [5].

THE ROLE OF A CONTRACTOR

A contractor is assigned to a construction project once the design has been completed by the person or is still in progress. This is done by going through a bidding process with different contractors. The contractor is selected by using one of three common selection methods: low-bid selection, best-value selection, or qualifications-based selection. this is the main role of a contractor.

BIDS

A bid is given to the owner by construction managers that are willing to complete their construction project. A bid tells the owner how much money they should expect to pay the construction management company in order for them to complete the project.

Open Bid: An open bid is used for public projects. Any and all contractors are allowed to submit their bid due to public advertising.
Closed Bid: A closed bid is used for private projects. A selection of contractors is sent an invitation for bid so only they can submit a bid for the specified project [4-6].

SELECTION METHODS

Low-bid selection: This selection focuses on the price of a project. Multiple construction management companies submit a bid to the owner that is the lowest amount they are willing to do the job for. Then the owner usually chooses the company with the lowest bid to complete the job for them.
Best-value selection: This selection focuses on both the price and qualifications of the contractors submitting bids. This means that the owner chooses the contractor with the best price and the best qualifications. The owner decides by using a request for proposal (RFP), which provides the owner with the contractor's exact form of scheduling and budgeting that the contractor expects to use for the project.
Qualifications-based selection: This selection is used when the owner decides to choose the contractor only on the basis of their qualifications. The owner then uses a request for qualifications (RFQ), which provides the owner with the contractor's experience, management plans, project organization, and budget and schedule performance. The owner may also ask for safety records and individual credentials of their members.

PAYMENT CONTRACTS

Lump-sum: This is the most common type of contract. The construction manager and the owner agree on the overall cost of the construction project and the owner is responsible for paying that amount whether the construction project exceeds or falls below the agreed price of payment.
Cost-Plus-Fee: This contract provides payment for the contractor including the total cost of the project as well as a fixed fee or percentage of the total cost. This contract is beneficial to the contractor since any additional costs will be paid for even though they were unexpected for the owner.
Guaranteed Maximum Price: This contract is the same as the cost-plus-fee contract although there is a set price that the overall cost and fee do not go above.
Unit-Price: This contract is used when the cost cannot be determined ahead of time. The owner provides materials with a specific unit price to limit spending.

PERFORMANCE MEASUREMENT SYSTEM DESIGN

An organization cannot have an effective performance management system if the metrics used do not relate to its strategic objectives; for any results coming out of a performance management system used to evaluate the extent to which these objectives have been met, the system will need to have strategy as its main input. An in-depth consideration of the organization's strategic goals is essential, as is an understanding of the revenue logic and processes involved in developing a measurement system and its metrics.
The Performance Pyramid and the Goal Question Metric are examples of linking strategy and operations by translating strategic objectives from top down to practical metrics. Likewise, the Balanced Scorecard (BSC) is a framework that takes into account the chain of cause-and-effect relationships among objectives, activities and results. The other recognized framework, The EFQM Excellence Model, is designed to allow companies to assess whether they are on "the path of excellence." The model enables a comprehensive, systematic and regular review of an organization's activities and results referenced against criteria that are internal to the model [7-8].

PROPOSED CONSTRUCTION PROJECT MANAGEMENT

The research is a practical problem developed from the observation of construction projects and the research questions are oriented to investigate the cause of cost overgrow and their effects. This research can be categorized as applied, exploratory, descriptive and co-relational type. It is applied and exploratory because the research was initiated from practical problems and finds whether there exists cost overgrow or not. It is also descriptive and co-relational because it tried to describe the actual rate of cost overgrow and the variables of cost overgrow and tries to draw relationship between contract amount and rate of cost overgrow in the public building construction projects.
Cost overgrows in building construction projects are caused by many factors. Each causes of cost overgrow have different rates of occurrences and their impact on the final cost of the construction project also varies. Therefore, it is important to identify both key causes of cost overgrow based on their occurrence and their impact on building construction projects. The effects of cost overgrow on the stakeholders, on the construction industry, and on the national economy of the country are identified.

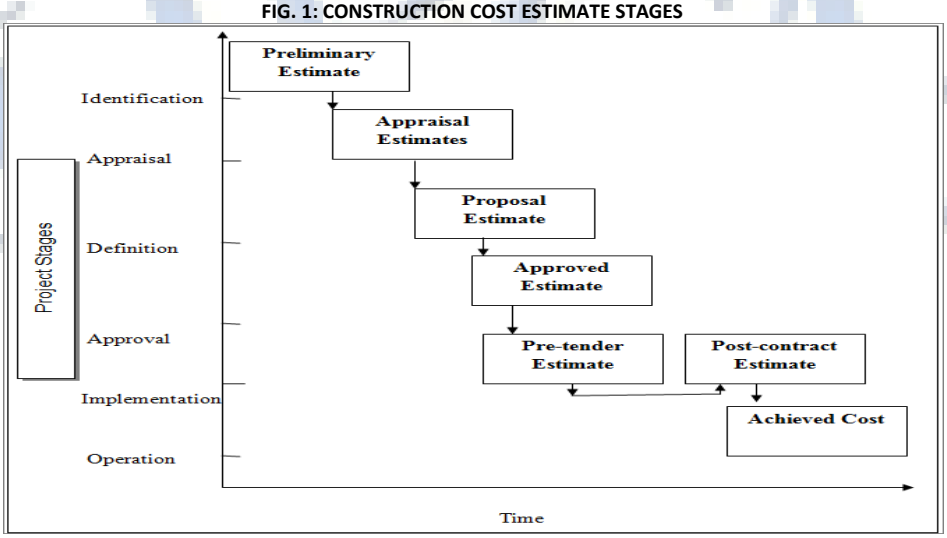
PROPOSED COST ESTIMATING METHOD'S STAGES

This paper is proposed and then developed, through time the estimate preparation and information will change based on the needs of the owner or the designer. Generally,, cost estimating is a dynamic process that begins in the early stages of a project and ends when the project is completed and turned over to the owner. It is important to consider the project stages at which estimates can realistically and usefully be produced so that there is a sound basis for deciding whether or not to proceed to the next stage. The number of stages in a project is influenced by the project delivery strategy adopted. The traditional civil engineering projects can be divided into six stages:

1. Identification,
2. Appraisal,
3. Definition,
4. Approval,
5. Implementation
6. Operation.

These stages may not be appropriate for every project and cannot be adhered to exclusively,, but they do offer a rational and structured approach which is applicable to many construction projects. Figure 1 shows the sequence of these project stages and indicates the types of estimate used in each stage.

FIG. 1: CONSTRUCTION COST ESTIMATE STAGES



PRELIMINARY ESTIMATE

This is an initial estimate at the earliest possible stages. It is likely that no design data will be available and that there will be only a crude indication of the project size or capacity. The preliminary estimate is likely to be of use in the provisional planning of capital expenditure program.

APPRAISAL ESTIMATES

Sometimes known as feasibility estimates;; these are directly comparable estimates of the alternative schemes under consideration.

PROPOSAL ESTIMATE

This is an estimate for the selected scheme. A proposal estimate is usually based on a conceptual design and design study specifications.

APPROVED ESTIMATE

A modified version of the proposal estimate to reflect the client's views, which is intended to provide the basis for project cost control.

PRE-TENDER ESTIMATE

A refinement of the approved estimate based on the definitive design work using the information provided in the tender documents which should be used during bid evaluation as a marker against which bids can be assessed.

POST-CONTRACT ESTIMATE

Once the design documents are complete,, companies interested in actually performing the work price the project. At this level the cost estimate is made by contractors who want to execute the project. This estimate is the most important. It carries with it legal implications; if the bid is accepted, a construction company is legally bound to a specific price for a specific scope of work.

This estimate serves as a base-line cost for comparing the deviation of the actual cost from the initial contractors estimate. It also serves for controlling and managing costs during construction phase.

ACTUAL COST

This is a record of the actual costs of the job in order to review performance and provide data for future projects. It is useful to compare the actual use and expenditure of allowances and contingencies with those included in the various estimates.

Every estimate, whether prepared in the early phase of the project or at tender time considers the same basic issues. Project price is affected by the size of the project, the quality of the project, the location, construction start time and duration, and other general market conditions, etc. The accuracy of an estimate is directly affected the availabilities of data and by the ability of the estimator to properly analyze these basic data.

PROPOSED METHOD ANALYSIS

Both descriptive and inferential statistics are employed in the data analysis. In the analysis the "Mean Score" method is adopted to establish the relative importance of the causes of cost overgrow for public building construction projects in India. As discussed earlier Likert's scale of five ordinal measures of agreement towards each statement is used to calculate the mean score for each factor that is used to determine the relative ranking. The mean score (MS) for each variables of cost overgrow is computed by using the following formula;

$$MS = \frac{\sum(f x\ S)}{\mathrm{N}}$$

Where:

MS - Mean Score

f – Frequency of responses for each score

S – Scores given to each factor (from 0 to 4)

N – Total number of responses concerning each factor

The Spearman (rho) rank correlation coefficient is used for measuring the differences in ranking between two groups of respondents scoring for various factors (i.e. clients versus consultants, clients versus contractors, and consultants versus contractors). The Spearman (rho) rank correlation coefficient for any two groups of ranking is given by the following formula:

Spearman rank correlation coefficient= [1- {6x ∑(The difference in ranking between each pair of factors)^2}/ N X (N^2-1)]

Procedure for hypothesis testing:

1. Define the null hypothesis (H0) and the alternative hypothesis (HA)
2. Choose a value for the significance level
3. Calculate the value of the test statistic, Spearman rank correlation coefficient.
4. Compare the calculated value with a table of the critical values of the test statistic.
5. If the calculated value of the test statistic is less than the critical value from the table, accept the null hypothesis (H0). If the absolute (calculated) value of the test statistic is greater than or equal to the critical value from the table, reject the null hypothesis (H0) and accept the alternative hypothesis (HA).

RESULTS DISCUSSION

QUESTIONNAIRE SURVEY

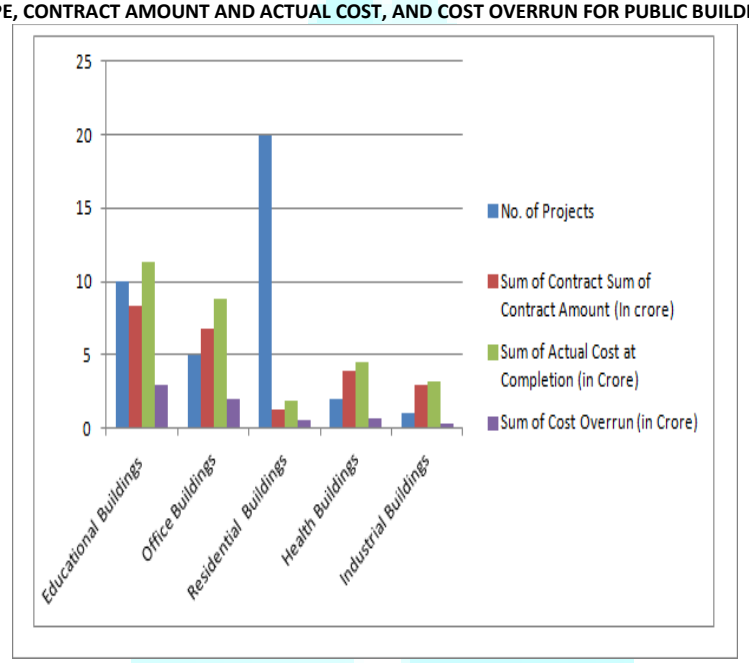
This part of the research deals with the analysis and discussion of the data gathered from the desk study and questionnaire survey. It includes the identification of the existence and extent of cost overgrow, relationship between rate of cost overgrow and contract amount, main causes of cost overgrow, rate of occurrences of variables of cost overgrow, the impact of the variables of cost overgrow on the final/total cost of the project. Finally, the effects of cost overgrow on the various stakeholders, on the construction industry, and on the national economy in general will be dealt. The procedure used in analyzing the results was aimed at establishing the relative importances of the various factors responsible for cost overgrow and their effects. The questionnaire gave each respondent an opportunity to identify the factor that was likely to cause cost overgrow by giving the response "I strongly disagree", "I disagree", "I agree", etc; frequency occurrence of the variables of cost overgrow ; and the impacts of each cost. Overgrow variables on the final cost of the project. For each variables of cost overgrow, the percentages of respondents' response were ranked for analysis purpose. On the basis of the ranking of the variables by the various groups, it was possible to identify the most important factors that influenced cost overgrows in public building construction projects. From the desk study a variety of completed public building construction projects throughout in India were surveyed. During the desk study all the documents of each project such as correspondence letters, project report, payment certificate, the contract amount, contract time during signing of the contract actual cost and actual completion time at completion of the project were thoroughly investigated. These help to understand the reasons behind each project for cost overgrow, and to investigate how the actual cost at completion deviates from the contract amount. Collecting these data helped to analyze and draw the relationship between rates of cost overgrow and contract amount.

The table 1 and figure 2 represents value and graph of project type of contract amount and actual cost, and Cost overrun for public building construction projects.

TABLE 1: VALUE OF PROJECT TYPE, CONTRACT AMOUNT AND ACTUAL COST, AND COST OVERRUN FOR PUBLIC BUILDING CONSTRUCTION PROJECTS

	No. of Projects	Sum of Contract Sum of Contract Amount (In crore)	Sum of Actual Cost at Completion (in Crore)	Sum of Cost Overrun (in Crore)
Educational Buildings	10	8.34	11.33	2.99
Office Buildings	5	6.77	8.76	1.99
Residential Buildings	20	1.32	1.84	0.52
Health Buildings	2	3.87	4.54	0.67
Industrial Buildings	1	2.98	3.23	0.25

FIGURE 2: THE OF PROJECT TYPE, CONTRACT AMOUNT AND ACTUAL COST, AND COST OVERRUN FOR PUBLIC BUILDING CONSTRUCTION PROJECTS



QUESTIONNAIRE RESPONSE RATE

Detailed questionnaires were designed and distributed for the assessment of cost overrun on public building construction projects, for this purpose the questionnaires were distributed to major stakeholders in the construction industry; these are Contractors, Consultants and Clients (project owners). To make the analysis more comprehensive a total of 62 questionnaires were distributed to consultants, contractors and clients (project owners) out of whom 38 questionnaires were filled and returned.

RELATIONSHIP BETWEEN RATE OF COST OVERRUN AND CONTRACT AMOUNT

In the literature review part of this research paper it was indicated that the size of the project determines the rate of cost overrun, however, it is important to determine how rate of cost overrun varies with project size. As indicated in the literature review part of this paper, there were two ideas which contradict each other; found that cost overrun rates decreased with increase in the contract amount of construction projects, while Rowland, found that cost overrun rates increased with increase in the contract amount of construction projects. This section of the paper will identify the relationship between rate of cost overrun and contract amount; how the rate of cost overrun varies with contract amount.

CAUSES OF COST OVERRUN FROM DESK STUDY AND QUESTIONNAIRE RESPONSE

It has been found from the desk study that the most common causes of cost overrun are supplementary agreement, price fluctuation of construction materials particularly cement, reinforcement bar, fuel, and asphalt; change orders or variations due to enhancement initiated by clients, excess quantity during construction, unexpected or unforeseeable ground condition, mistakes during planning, design and contract documents preparation, etc.

HYPOTHESIZED CAUSES OF COST OVERGROW

1. Inflation or increase in the cost of construction materials
2. Lack of planning and coordination or less emphasis to planning
3. Fluctuations in the cost of labor and/or material or any other mater affecting the cost of the execution of the works and subsequent legislation that affect the project
4. Insufficient geotechnical investigation
5. Additional costs due to variations works
6. Change in foreign exchange rate (for imported materials)
7. Change orders and/or lack of control on excessive change orders
8. Costs due to special risks which very often include outbreak of war, projectile missile, hostilities, contamination and other such risks
9. Delay of drawings and/or order requested by the contractor in accordance with Sub Clause
10. Changes in Plans and drawings
11. Inappropriate/inexperienced contractor
12. Encountering of not foreseeable physical obstructions and conditions
13. Failure to identify problems and institute necessary and timely design and programming changes
14. Failure on the part of the employer to give possession of the site in accordance with the terms of the contract
15. Inaccurate quantity estimate or excess quantity during construction
16. Unclear specifications or changes to specification

17. Contractors bankruptcy
18. Cost under estimation
19. Additions and/or enhancement required by clients or end users
20. Difficulties in obtaining construction materials in the local market Government & Contractor
21. Errors in setting out which are based on incorrect written data supplied by the Engineer consultant
22. Ambiguities or discrepancies of documents Consultant
23. Loss or damage due to excepted risks or employers risk Government, Client & others
24. Suspension of work ordered by the Engineer Consultant
25. Complexity of construction projects Consultant & Contractor
26. Poor communication among contractor, consultant, and the client, Consultant & Contractor
27. Mistakes during construction or defective work Consultant & Contractor
28. Supplementary/additional agreement Client & consultant
29. Cost associated with test of samples not provided in the contract Client & Consultant
30. Funding problems or client's shortage of finance or delayed payments to contractors Client
31. Lack of end user involvement Client, Consultant & end user
32. Executive bureaucracy in the client's organization Client
33. Un-covering of works that has already been completed, but they are found to be executed in accordance with the contract Client & Consultant
34. Acceleration required by the owner Client & end user
35. Indemnities that the employer has contractually undertaken to assume Client & others
36. Different consultant for Design, Supervision & Contract Administration Consultant
37. Increase in tax/change in government fiscal/monetary policies Government
38. Searching for defects which are not the fault of the contractor

The major causes of cost overgrow are inflation or increase in the cost of construction materials, poor planning and coordination or less emphasis to planning, fluctuation in the cost of materials according.

IDENTIFYING CAUSES OF COST OVERGROW BASED ON RATE OF OCCURRENCE

The most frequent causes of cost overgrow were assessed from respondents and results are given. The causes of cost overgrow which have a mean score of greater than or equal to 2 (MS >= 2) rate of occurrence are considered as important because there is at least a probability of 50% chance for the occurrence.

HYPOTHESIZED CAUSES OF COST OVERGROW

1. Inflation or increase in the cost of construction materials
2. Fluctuations in the cost of labor and/or material or any other mater affecting the cost of the execution of the works and subsequent legislation that affect the project
3. Change in foreign exchange rate (for imported materials)
4. Change orders and/or Lack of control on excessive change orders
5. Lack of planning and coordination or less emphasis to planning
6. Additional costs due to variations works
7. Failure to identify problems and institute necessary and timely design and programming changes
8. Changes in Plans and drawings
9. Insufficient geotechnical investigation
10. Contractors bankruptcy
11. Difficulties in obtaining construction materials in the local market
12. Cost under estimation
13. Inaccurate quantity estimate or excess quantity during construction
14. Delay of drawings and/or order requested by the contractor in accordance with Sub Clause
15. Inappropriate/Inexperienced contractor
16. Supplementary/additional agreement
17. Ambiguities or discrepancies of documents
18. Poor communication among contractor, consultant, and the client
19. Encountering of not foreseeable physical obstructions and conditions
20. 21 Executive bureaucracy in the client's organization
21. Suspension of work ordered by the Engineer
22. Failure on the part of the employer to give possession of the site in accordance with the terms of the contract
23. Failure on the part of the employer to give possession of the site in accordance with the terms of the contract

As indicated on above, inflation or increase in the cost of construction materials, change in foreign exchange rate, and lack of planning and coordination or less emphasis to planning, change orders or variation orders are the top most frequently encountered causes of cost overgrow. Whereas force majeure related causes of cost overgrow such as outbreak of war, hostilities, uprisings, etc., are rarely encountered in the Ethiopian construction industry. Since the occurrences of causes of cost overgrow related to force majeure are rare, they have low rank.

IDENTIFYING OF CAUSES OF COST OVERGROW BASED ON IMPACT

As discussed previously identifying the rate of occurrence only will not help in identifying factors that are critical in causing cost overgrow; regardless of the chance of occurrence the significance of the factor independently has to be gauged with respect to its severity, when it happens during construction phase.

HYPOTHESIZED CAUSES OF COST OVERGROW

1. Inflation or increase in the cost of construction materials
2. Fluctuations in the cost of labor and/or material or any other mater affecting the cost of the execution of the works and subsequent legislation that affect the project
3. Costs due to special risks which very often include outbreak of war, projectile missile, hostilities, contamination and other such risks
4. Change in foreign exchange rate (for imported materials)
5. Additional costs due to variations works
6. Changes orders or lack of control on excessive change orders
7. Insufficient geotechnical investigation
8. Difficulties in obtaining construction materials in the local market
9. Ambiguities or discrepancies of documents
10. Encountering of not foreseeable physical obstructions and conditions
11. Contractors bankruptcy
12. Inappropriate/Inexperienced contractor

13. Lack of planning and coordination or less emphasis to planning
14. Failure to identify problems and institute necessary and timely design and programming changes
15. Changes in Plans and drawings
16. Failure on the part of the employer to give possession of the site in accordance with the terms of the contract
17. Inaccurate quantity estimate or excess quantity during construction
18. Cost under estimation
19. Unclear specifications or changes in specification
20. Poor communication among contractor, consultant, and the client

The above finance related causes of cost overgrow such as inflation or increase in the cost of construction materials, fluctuation in the cost of materials according to conditions of contract, etc and force majeure related such as outbreak of war, up risings, etc have higher impact on the final cost of the project at completion. Even if force majeure related causes of cost overgrow have severe impact on the final cost of the project at completion their rate of occurrence is low.

EFFECTS OF COST OVERGROW

Although the degree of effects of cost overgrow varies on the stakeholders in the construction industry, all the parties involved are affected by cost overgrow. Generally, the following are the main effects of cost overgrow which are collected from the respondents of the questionnaire survey and desk study.

1. Delay,
2. Supplementary agreement,
3. Additional cost, budget short fall,
4. Adversarial relationship between participants of the project,
5. Loss of reputation to the consultant, the consultant will be viewed as incompetent by project owners,
6. High cost of supervision and contract administration for consultants,
7. Delayed payments to contractors,
8. The contractor will suffer from budget short fall of the client,
9. Poor quality workmanship,
10. Dissatisfaction by project owners and consequently by end users,
11. Negative attitude towards the construction industry by the higher public authority and by the society as a whole,
12. The contribution of the construction industry to the growth of national economy of the country will be less,
13. Cost overgrows in construction projects prevent the planned increase in property and service production from taking place, and this phenomenon in turn affects, in a negative way, the rate of national growth,
14. Weekends the growth of the construction industry by eroding mutual trust and respect,
15. Pours money unnecessarily to the project at hand at the expense of other new projects,

One of the common effects of cost overgrow is delay; this in turn affects clients, consultants and contractors. Furthermore, lengthy delays increase cost overgrows tremendously. Excessive cost overgrow requires additional budget, this in turn eat up the scarce financial resources of the country, which lead to further budget short fall for construction projects. This prevents the planned increase in property and service production from taking place, and this phenomenon in turn affects, in a negative way, the rate of national growth. Costs overgrow will also be a source of dispute among stakeholders and it lead to adversarial relationship among project participants. Project owners will lose confidence on consultant and on professionals in general. To the industry as a whole, cost overgrows could bring about a drop in building activities, bad reputation, and inability to secure project finance easily form public authorities in the future. Al these effects undermine the viability and sustainability of the construction industry.

CONCLUSION

Financial resources are so scarce in developing countries like India, hence, cost related issues in the Indian construction industry are sensitive issues. Therefore, carrying out a research in this area will have a paramount importance. Identification of causes of cost overrun is a prerequisite to minimize or to avoid cost overrun in the construction industry. The main objective of this research is, therefore, to identify and investigate the critical causes and effects of cost overrun on public building construction projects in India. Desk study was used to identify the existence and extent of cost overrun on public building construction projects in India. Questionnaire survey was also used to identify the causes and effects of cost overrun. Clients, consultants and contractors were asked to identify the variables of cost overrun in the Indian construction industry. The analysis of the results from the open-ended part of the questionnaire was carried out using descriptive analysis.

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USAGE PATTERNS OF COSMETIC (FASHIONABLE) HERBAL PERSONAL CARE PRODUCTS (HPCP): A MICRO LEVEL FIELD STUDY IN MYSORE AND BANGALORE

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ABSTRACT

The present study focuses on the usage patterns of Herbal Personal Care Products (HPCP). In this research paper an attempt has been done to understand the impact of selected herbal cosmetic Products on Indian women in and around the cities of Mysore and Bangalore. The study has been undertaken with the anticipation to find the association between varied age groups and fashionable cosmetic products and to assess the frequency of usage patterns of the herbal cosmetic products among the study sample undertaken. One hundred women respondents were chosen through stratified random sampling, Where the strata chosen was the age factor. Women aged between the ages of 16 to 60 were addressed with Close-ended Questionnaires. The SPSS (v20) for windows was incorporated for the analysis. Prevalence of Conventional and traditional cosmetic usage patterns are derived and tabulated.

KEYWORDS
Herbal cosmetics, fashionable cosmetics, traditional patterns.

1. INTRODUCTION

Herbal cosmetics are in existence from when the men started to use the cosmetic products. So they are the oldest products used by mankind. Some common cosmetics include creams, face packs, scrubs, hair oils, hair colors, shampoos, hair conditioners, lipsticks, blush-on or rouge as it is sometimes known, eyeliners, mascaras, foundations and eye shadow, perfumes and fragrance, soaps, etc. The formulation of all these cosmetic products addition of various natural additives like oils, waxes, natural colour, natural fragrances and parts of plants like leaves, flowers etc by specific formulation includes methods.(Pandey Shivanand et all, 2010)

The history of cosmetics relates back to at least 6,000 years of human civilization. In the Western world, the use of cosmetics became prominent in the Middle Ages, typically among members of the 'Posh' classes, and then gradually it spread through the world including India (Bhattacharya, 2006).The study of non-industrial cultures indicates the use of cosmetics in every part of the world. The general term cosmetics is applied to all preparations used externally to condition and beautify the body, by cleaning, coloring, softening, or protecting the skin, hair, nails, lips, or eyes (Kapoor, 2005).

Herbal Cosmetics, here in after referred as Products, are formulated, using various permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide defined cosmetic benefits only, shall be called as "Herbal Cosmetics".Herbals are used more in cosmetic products for several reasons, which are natural origin, low price and user friendly too. The cosmetical industry has responded to the afore mentioned reason by delivering the products of natural ingredients, though there is a argument about the authenticity of these natural ingredients (Marcoux, 1999).

The new "active ingredients" are derived from nature for unique marketing stories and to reduce the risk of side effect. Today, there is growing consumer demand for personal care products containing natural and/or organic ingredients (Antignac et al., 2011).

The growth of cosmetics and beauty products markets have surged significantly as consumers are increasingly becoming aware about appearance, beauty, grooming and choice of personal care products.A wide range of active principle ofvarious plants and animals including vitamins,hormones, phytohormones, bioflavonoids, enzymes,tannic acid, fruit acids, amino acids, sugars,glycosides, essential oils and dye stuffs are beingconsidered useful in herbal cosmetic formulations. The use of phyto-chemicals from a variety of botanicals has dual function, (i) They serve as cosmetics for the care of body and its parts and (ii) the botanical ingredients present influence biological functions of skin and provide nutrients necessary for the healthy skin or hair.

The usage of herbal cosmetics has interested many folds in Cosmetic and personal care industry and it has been growing at an average rate of about 15% for the last few years. Herbal Cosmetics, here in after referred as Products. are formulated, using various permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide defined cosmetic benefits only, shall be called as "Herbal Cosmetics". The history of the herbal cosmetics industry includes very dark chapters in European and Western countries from about six centuries back. Mixtures and pastes were then used to whiten the face, a practice which remained popular till over four hundred years later (Robertson et al. 2008).

The cosmetic and personal care products industry has been growing at an average rate of about 15% for the last few years. This is mainly accounted from low and medium priced category products, which comprises of about 90% of cosmetic market, in terms of volumefor example, mall culture, better purchasing power, concern for looking better, nature of the job, development in advertisement technology and in general, availability of a wide range of cosmetic products (tailor made for different skin types, hair types, etc.). According to one estimate published by US Commercial Services, American Embassy, New Delhi, the per capita expenditure on cosmetics in India is approximately Rupees Thirty (Rs. 30/-) as compared to Rupees One Thousand Six Hundred and Fifty (Rs.1650/-) in some other Asian countries.

The behavior of the consumers and the persisting trend in the market of herbal care and cosmetics can be the key feature to identify the point of action in bringing the more suitable and age agreeing product to the market.Women today are constantly being reminded of what is considered beautiful (Bloch & Richins1992). There are thousands of advertisements that promote this elusive beautiful image to women of all ages, shapes, and sizes. By placing a few naturally blessed beautiful women and models in advertisements, society has built up impossible standards of beauty, which has led to feelings of inadequacy among women (Beausoleil, 1992).More often, it is the behavior of the consumer which leads to more accurate type of product to be launched and to assess the present need and to deliver the same. More and more companies dwell on the same basic idea but many fail to compel, but end up damaging the reputation of its own company's PR value and may even scar the consumer for life. (Jalalkamali & Nikbin, 2010). Therefore; this study aims to study the roles of herbals in cosmetic products and to study the perception of women of different ages.

ANALYSIS

TABLE 1: USE PATTERNS OF HERBAL PERSONAL CARE PRODUCT: EYE MAKEUP

Age groups		Eye Makeup			
		Eyebrow pencil	Eyeliner	Mascara	Eye makeup remover
		Yes	Yes	Yes	Yes
Less than 20 years	F	6	7	7	1
	%	26.1%	30.4%	30.4%	4.3%
20-30years	F	15	16	13	5
	%	32.6%	34.8%	28.3%	10.9%
30-40years	F	8	4	4	2
	%	44.4%	22.2%	22.2%	11.1%
Above 40 years	F	3	2	2	0
	%	23.1%	15.4%	15.4%	.0%
Total	F	32	29	26	8
	%	32.0%	29.0%	26.0%	8.0%
Test statistics	X^2	X^2=4.00; P=.046	X^2=0.16; P=.689	X^2=23.04; P=.000	X^2=43.56; P=.000
	CC	CC=.145; P=.545	CC=.151; P=.505	CC=.111; P=.741	CC=.150; P=.513

Note: X^2= Chi-Square; CC= Contingency Co-efficient; p= Significance.

Source: Field data

As Far as the *Eye makeup* was considered, of the selected sample, a majority 32.0% of the respondents preferred Eyebrow pencil, a moderate 29.0% of the respondents preferred *Eyeliner*, while a similar 26.0% of respondents preferred *mascara* over others products, and very nominal 8.0% of them used *eye makeup remover*. Chi-Square test revealed a significant difference in all the groups except in '*Eyeliner*' having (X^2=0.16 ; P=.689). Further when these responses were associated with that of age groups, none of them exhibited a Significance association and similarity of preferences between age groups and their preferences was evident.

TABLE 2: USE PATTERNS OF HERBAL PERSONAL CARE PRODUCT: FACIAL MAKEUP

Age groups		Facial Makeup			
		Cheek colour	Face powder	Lip colour	Foundation
		Yes	Yes	Yes	Yes
Less than 20 years	F	2	10	5	2
	%	8.7%	43.5%	21.7%	8.7%
20-30years	F	9	14	17	8
	%	19.6%	30.4%	37.0%	17.4%
30-40years	F	7	3	5	1
	%	38.9%	16.7%	27.8%	5.6%
Above 40 years	F	4	3	2	1
	%	30.8%	23.1%	15.4%	7.7%
Total	F	22	30	29	12
	%	22.0%	30.0%	29.0%	12.0%
Test statistics	**X^2**	X^2=27.04; P=.000	X^2=5.76; P=.016	X^2=4.84; P=.028	X^2=25.00; P=.000
	CC	CC=.240; P=.107	CC=.192; P=.282	CC=.176; P=.364	CC=.154; P=.486

Note: X^2= Chi-Square; CC= Contingency Co-efficient; p= Significance.

Source: Field data

In Facial Makeup Category, of the sample, a moderately high 30.0% of the respondents preferred *Face Powder*, 29.0% of them responded as their choice to be *Lip Colour*, while 22.0% of them preferred *Check Colour* to be as their Facial makeup, and a mere 12.0% of the respondents chose *Foundation* to be there preferred makeup. Further when Chi-Square test was applied, it revealed a significance difference among all the groups of frequencies present. However when Contingency Co-efficient was applied to check the association with the different age groups, a non-significant association was evident in all the groups of facial makeup choices.

TABLE 3: USE PATTERNS OF HERBAL PERSONAL CARE PRODUCT: FRAGRANCE

Age groups		Fragrance			
		Fragrants	Perfumes	Body powder	Dusting powder
		Yes	Yes	Yes	Yes
Less than 20 years	F	2	11	6	1
	%	8.7%	47.8%	26.1%	4.3%
20-30years	F	13	21	8	2
	%	28.3%	45.7%	17.4%	4.3%
30-40years	F	6	4	3	2
	%	33.3%	22.2%	16.7%	11.1%
Above 40 years	F	6	5	1	0
	%	46.2%	38.5%	7.7%	.0%
Total	F	27	41	18	5
	%	27.0%	41.0%	18.0%	5.0%
Test statistics	X^2	X^2=31.36; P=.000	X^2=1.00; P=.317	X^2=36.00; P=.000	X^2=84.64; P=.000
	CC	CC=.251; P=.081	CC=.184; P=.319	CC=.140; P=.575	CC=.145; P=.540

Note: X^2= Chi-Square; CC= Contingency Co-efficient; p= Significance.

Source: Field data

As far as the Fragrance was considered, On the Whole, a majority of 41.0% of the respondents preferred *Perfumes* as their choice of Fragrance, while a 27.0% of them preferred fragrant, a 18.0% of them preferred Body Powder and a mere 5.0% of the respondents chose Dusting Powder as to be there preferred choice of

Fragrance. Further Chi-Square test revealed the presence of a Significant Difference between all the groups except that of Perfumes having (X^2=1.00; P=.317). However, when these preferences were check against age groups, none of the groups exhibited any significance association among the cross section.

TABLE 4: USE PATTERNS OF HERBAL PERSONAL CARE PRODUCT: HAIR COLOURING

Age groups		Hair Colouring			
		Colours/dyes	Hair tints	Hair rinses	Hair bleaches
		Yes	Yes	Yes	Yes
Less than 20 years	F	8	4	2	0
	%	34.8%	17.4%	8.7%	.0%
20-30years	F	24	6	2	2
	%	52.2%	13.0%	4.3%	4.3%
30-40years	F	5	7	0	0
	%	27.8%	38.9%	.0%	.0%
Above 40 years	F	4	2	3	0
	%	30.8%	15.4%	23.1%	.0%
Total	F	41	19	7	2
	%	41.0%	19.0%	7.0%	2.0%
Test statistics	X^2	X^2=0.36; P=.549	X^2=40.96; P=.000	X^2=54.76; P=.000	X^2=88.36; P=.000
	CC	CC=.210; P=.203	CC=.235; P=.120	CC=.258; P=.068	CC=.153; P=.494

Note: X^2= Chi-Square; CC= Contingency Co-efficient; p= Significance.

Source: Field data

When *Hair Colouring* fashionable attribute was considered, of the sample, a great majority 41.0% of them preferred *dyes,* while a moderate group of 19.0% preferred *Hair Tints,* and 7.0% of them preferred *Hair rinses*, and lastly a mere 2.0% of them chose to prefer *Hair Bleaches.* Chi-Square test revealed the presence of a significance difference between all the groups of frequencies except in *Dyes,* where (X^2=0.36; P=.549). And when Contingency Co-efficient was applied to verify the association of age groups with that of Preferences, None of the groups exhibited any significance association among them, thus establishing a similarity in the preferences in varied age groups.

MAIN FINDINGS

- As far as the Eye Makeup is considered, all the correspondents (Eye brow pencil, Eyeliner and Mascara) had almost similar usage patterns.
- Very little difference was seen among *Face Powder and Lip Colour, hence were preferred more.* While the other two *(Check powder and Foundation) were less* popular among consumers.
- Fragrants and dyes were undoubtedly the most preferred choices among every other fragrances and Hair colour.

CONCLUSION

Herbal cosmetic also known as “natural cosmetics”,with the beginning of the civilization, mankind had the magnetic dip towards impressing others with their looks. The Knowledge of Herbal ingredients used in cosmetics by people so far seen to be intersected with versatile groups of women, with some exceptions based on the product and use. In the present study, it was observed that many of the women inclined towards traditional trends and age inclination was ambiguous. The Herbal Cosmetics had the very impact deserved for natural cosmetics in the modern world. There is a wide gamut of the herbal cosmetics that are manufactured and commonly used for daily purposes. It was studied that the usage pattern of women while using eye liner, Mascara, Fragrants, Lip Colour and Face powder were more, and were highly acclaimed by masses.

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PROFITABILITY PERFORMANCE OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED: A CASE STUDY

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ABSTRACT

Fertilizer in the agricultural process is an important area of prime concern. Fertilizer industry in India has succeeded in meeting the demand of all chemical fertilizers in the recent years. The profitability performance of the NFCL has registered fluctuations over the years. The long term funds show the dynamic nature of funds. The lowest fixed assets are Rs.200243.10 in 2003-04 and highest are 326137.59 in 2011-12. Long term funds are greater than fixed assets and current assets, when compared to fixed assets and current assets, fixed assets are more than current assets. The gross profit margin was fluctuating over the years. Despite fluctuations, the ratio was satisfactory. It may be inferred that NFCL was able to produce fertilizers and sell at low cost. The net profit margin ratio is (0.14) in 2002-03 and 3.80 in 2010-11. It may be concluded that the net profit performance was not satisfactory in NFCL as the ratio was too low. In other words, net profit was not commensurate with sales. Equity is greater than profit after tax. It is concluded that the profitability performance in terms of equity was very thin. The ratio was too low and for behind the standard norm of 12 per cent. The net profit shall be improved in line with sales through effective operating and cost mechanisms. The profitability performance with regard to equity and capital employed shall also the improved by gearing up the variables of profitability. The return on investment shall be improved through effective cannons of finance. To this end, Capital budgeting techniques, operating cycle Concept for estimation of working capital and leverage principle shall be initiated.

KEYWORDS
Profitability Performance, Profitability in relation to sales, Profitability in relation to investment, Nagarjuna Fertilizers and Chemicals Limited.

INTRODUCTION

Agriculture, the backbone of Indian Economy, still holds its relative importance for more than a billion people. The Government of India from time to time has taken considerable steps for the upliftment of agriculture sector. Here the performance of fertilizer industry being one of the vital parts in agricultural production and Government's policy initiatives for the same. Fertilizer in the agricultural process is an important area of prime concern. Fertilizer industry in India has succeeded in meeting the demand of all chemical fertilizers in the recent years. The Fertilizer Industry in India started its first manufacturing unit of Single Super Phosphate (SSP) in Ranipet near Chennai with a capacity of 6000 MT a year.

Fertilizer sector is very crucial for Indian economy because it provides a very important input to agriculture. The fertilizer industry in India has played a pivotal role in achieving self-sufficiency in food grains as well as in rapid and sustained agriculture growth. India is the third largest producer and consumer of fertilizer in world after China and USA. The growth of the fertilizer is highly dependent on govt. policies. The government exercises extensive controls on pricing, distribution and movement of fertilizers. Determinants of fertilizer demand are rainfall and irrigation facilities. Diversified and adequate rainfall gives farmers confidence to invest in fertilizers. Apart from this, well irrigation facility is much sought after. Fertilizer production is capital intensive and presently the cost of production of indigenous material is high and returns on investment are low. The Indian fertilizer industry which achieved phenomenal growth in eighties, witnessed a decline in the growth rate during the nineties. In the recent past, the fertilizer industry has not attracted any significant investment. No multinational has invested in fertilizer sector in India. Due to sufficient indigenous capacity and low international prices of urea the Government of India in Feb. 2000 decided that no new grassroots projects would be allowed during the next three years in public, private or cooperative sector.

The results of the firm can be evaluated in terms of its earnings with reference to a given level of assets or sales or owners interest. A company should earn profits to survive and grow over a long period of time. Profits are essential but it would be wrong to assume that every action initiated by management of a company should be aimed at maximizing profits. Profit is the difference between revenues and expenses over a period of time. Besides management of the company, creditors and owners are also interested in the profitability of the firm. Creditors want to get interest and repayment of principle regularly.

The profitability performance of the NFCL has registered fluctuations over the years. In some years, losses were also registered. The declining profitability has serious impact on financial performance of NFCL. Hence the modest attempt is made to trace out the deficiencies and inadequacies in the financial performance of NFCL. In recent past, production of nitrogen and fertilizers and chemicals has witnessed an increase for meeting the increased demand. Modest attempt in made to trace out the deficiencies and inadequacies in the financial performance of NFCL.

OBJECTIVE

The present research paper aims at evaluating the profitability performance of Nagarjuna Fertilizers and chemicals Limited

TOOLS OF ANALYSIS

The data drawn from the manual reports of Nagarjuna Fertilizers and chemicals Limited have been carefully analyzed, tabulated and interpreted by using well established financial tools. The analysis of data is carried out through profitability ratios such as gross profit margin, net profit margin, return on equity and return on investment ratio. Graphs are presented to illuminate the facts and figures.

PROFITABILITY PEFORMANCE

The profitability ratios measure the profitability or the operational efficiency of the firm. These ratios reflect the final results of business operations. Generally, two major types of profitability ratios are calculated.

1. Profitability in relation to sales
2. Profitability in relation to investment

GROSS PROFIT MARGIN

The gross profit margin reflects the efficiency with which management produces each unit of product. This ratio indicates the average spread between the cost of goods sold and the sales revenue. When we subtract the gross profit margin from 100 per cent, we obtain the ratio of cost of goods sold to sales. A high

gross profit margin ratio is a sign of good management. A low gross profit margin may reflect higher cost of goods sold due to the firm's inability to purchase raw materials at favorable terms, inefficient utilization of plants and machinery, or over investment in plant and machinery, resulting in higher cost of production or due to fall in prices in the market.

Gross Profit margin Ratio is calculated by using the following formula.

Gross Profit margin Ratio = sales – cost of goods sold / sales x 100

Or

Gross Profit margin Ratio = Gross profit/sales x 100

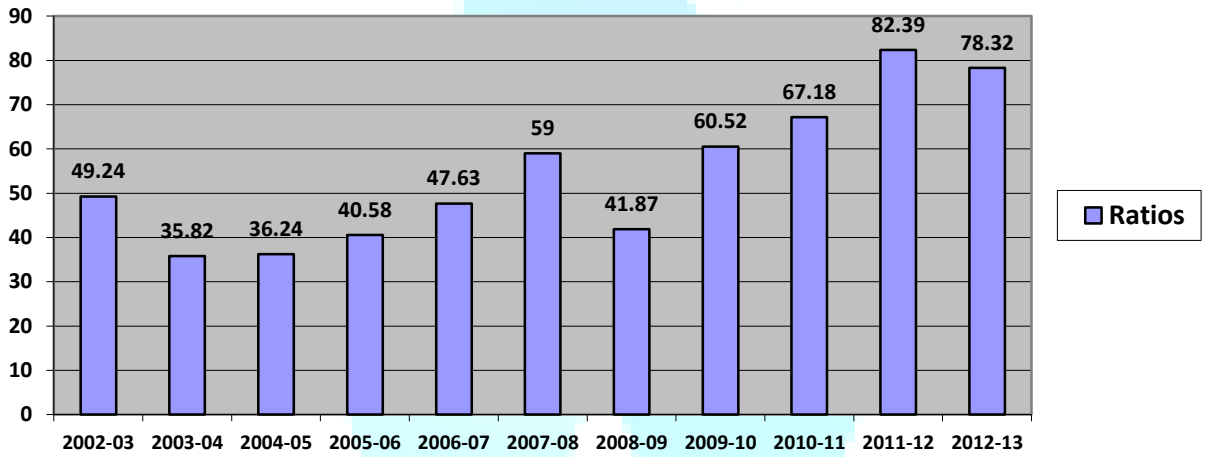
The gross profit margin ratio is shown in the Table 1.

TABLE 1: GROSS PROFIT MARGIN RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LTD. (Rs. in Crores)

Years	Sales	Cost of goods sold	Gross profit	Gross profit margin ratio (times)
2002-03	899.85	456.75	443.10	49.24
2003-04	1072.62	688.28	384.34	35.82
2004-05	1266.39	807.47	458.92	36.24
2005-06	1452.95	863.39	589.55	40.58
2006-07	1815.24	950.65	864.59	47.63
2007-08	2193.59	900.34	1293.25	59.00
2008-09	2371.91	1378.72	993.19	41.87
2009-10	1987.91	784.82	1203.09	60.52
2010-11	3087.87	1013.54	2074.33	67.18
2011-12	4992.28	879.15	4113.13	82.39
2012-13	5484.62	1188.93	4295.69	78.32

Source: Compiled from Annual Reports

FIGURE 1: GROSS PROFIT MARGIN RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED



The sales of fertilizers varies from Rs. 899.85 Crores in 2002-03 to Rs. 5484.62 Crores in 2012-13 showing an increasing trend while the cost of goods sold ranges from Rs.456.75 Crores in 2002-03 to Rs. 784.82 Crores in 2009-10 showing an up and down trend. The gross profit is Rs.443.10 Crores in 2002-03 and, the gross profit gradually increased to Rs. 4295.69 Crores in 2012-13. It is observed that the gross profit has continuously increased from 2002-03 to 2012-13 except in 2008-10.

The gross profit margin ratio is 49.24 in 2002-03 and increased to 36.24 in 2004-05 and again decreased to 78.32 in 2012-13. The gross profit margin ratio has been fluctuating over the years. It may be said that the gross profit margin was fluctuating over the years. Despite fluctuations, the ratio was satisfactory. It may be inferred that NFCL was able to produce fertilizers and sell at low cost.

NET PROFIT MARGIN

Net profit is obtained when operating expenses, interest and taxes are subtracted from the gross profit. Net profit margin ratio establishes a relationship between and sales and indicates management's efficiency in manufacturing, administering and selling the products. This ratio is the overall measure of the firm's ability to turn each rupee sales into net profit. This ratio also indicates the firm's capacity to withstand adverse economic conditions. A firm with a high net margin ratio would be in an advantageous position to survive in the face of falling selling prices, rising cost of production or declining demand for the product.

Net profit margin is calculated by using the following formula:

Net Profit Margin = Profit after tax / Sales x 100

The net profit margin ratio is presented in the Table 2.

TABLE 2: NET PROFIT MARGIN RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED (Rs. in Crores)

Years	Profit after tax	Sales	Ratio(times)
2002-03	(127.47)	899.85	(14.17)
2003-04	17.44	1072.62	1.63
2004-05	29.53	1266.39	2.33
2005-06	66.85	1452.95	4.60
2006-07	31.71	1815.24	1.75
2007-08	22.49	2193.59	1.03
2008-09	32.41	2371.91	1.37
2009-10	66.37	1987.91	3.34
2010-11	118.10	3087.87	3.82
2011-12	135.95	4992.28	2.72
2012-13	83.84	5484.62	1.53

Source: Compiled from Annual Reports.

FIGURE 2: NET PROFIT MARGIN RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED.

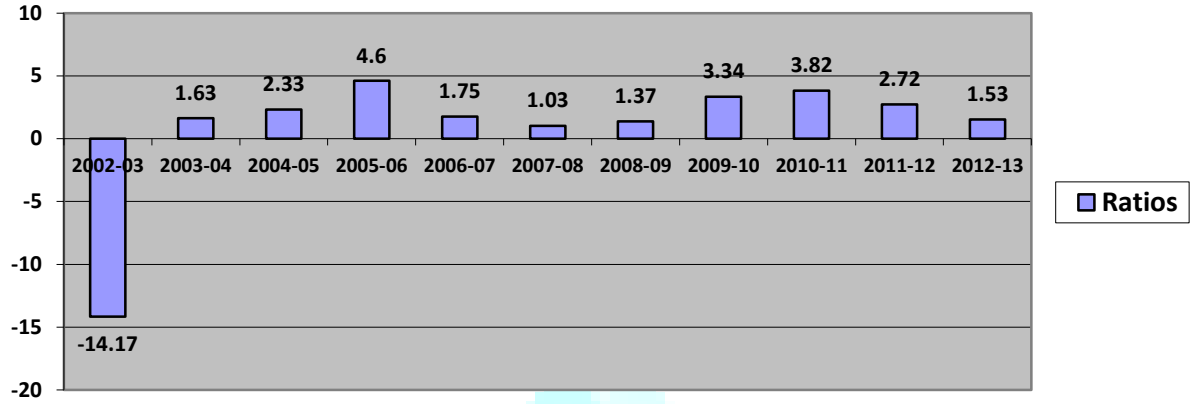


Table 2 shows net profit ratio. It is evident that the profit after tax is Rs.127.47 Crores in 2002-03 and decreased to Rs.17.44 Crores in 2003-04. But from 2006-07 onwards, the profit again gradually decreased to Rs. 83.84 Crores in 2012-13. Sales are greater than profit after tax.

The net profit margin ratio is (0.14) in 2002-03 and 3.82 in 2010-11. It may be concluded that the net profit performance was not satisfactory in NFCL as the ratio was too low. In other words, net profit was not commensurate with sales.

RETURN ON EQUITY RATIO (ROE)

A return on shareholder's equity is calculated to see the profitability of owner's investment. Return on equity ratio indicates how well the firm has used the resources of owners. This ratio is one of the most important relationships in financial analysis. The earning of satisfactory return is the most desirable objective of a business. The ratio of net profit to owner's equity reflects the extent to which this objective has been accomplished. This ratio is of great interest to the present as well as prospective shareholder and also of great concern to management which has the responsibility of maximizing the owner's welfare.

Return on Equity Ratio is calculated by using the following formula.

Return on Equity Ratio = Profit after tax / Net worth x 100

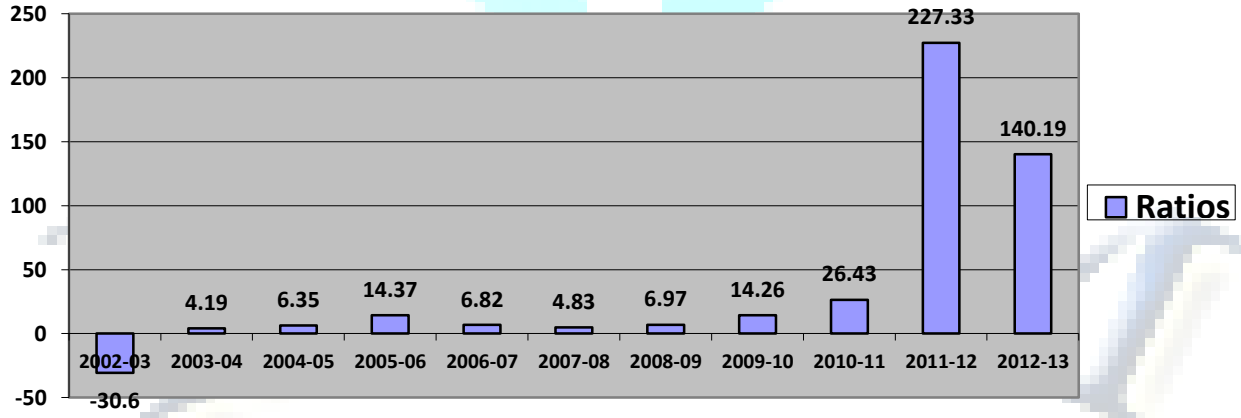
Return on Equity Ratio of Nagarjuna Fertilizers and Chemicals Limited is presented in the Table 3.

TABLE 3: RETURN ON EQUITY RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED (Rs. in crores)

Years	Profit after tax	Equity	Return on Equity Ratio(times)
2002-03	(127.47)	416.61	(30.60)
2003-04	17.44	416.61	4.19
2004-05	29.53	464.97	6.35
2005-06	66.85	465.16	14.37
2006-07	31.71	465.17	6.82
2007-08	22.49	465.18	4.83
2008-09	32.41	465.20	6.97
2009-10	66.37	465.39	14.26
2010-11	118.11	446.78	26.43
2011-12	135.96	59.81	227.33
2012-13	83.84	59.81	140.19

Source: Compiled from Annual Reports

FIGURE 3: RETURN ON EQUITY RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED



The table depicts that the return on equity ratio is 0.31 in 2002-03 and gradually decreased to 0.04 in 2003-04. Again the ratio increased to 0.06 in 2004-05 to 0.14 in 2005-06. Ever since, the ratio again decreased to 0.07 in 2006-07 to 140.19 in 2012-13 for the last four years consecutively. Equity is greater than profit after tax. It is concluded that the profitability performance in terms of equity was very thin. The ratio was too low and for behind the standard norm of 12 per cent.

RETURN ON INVESTMENT RATIO

The term investment may refer to total assets or net assets. The fund employed in net assets is known as capital employed. Investment represents pool of funds supplied by shareholders and lenders. Net assets equal net fixed assets plus current assets minus current liabilities excluding bank loans. Alternatively, capital employed is equal to net worth plus total debt. The conventional approach of calculating return on investment (ROI) is to divide profit of tax by investment. Where ROTA and RONA are respectively return on total assets and return on net assets. RONA is equivalent on return on capital employed.

Return on investment ratio is calculated by using the following formula.

Return on investment ratio = PBIT/sales x sales/Total Assets x 100

(or)

Return on investment ratio = PBIT / Total Assets x 100

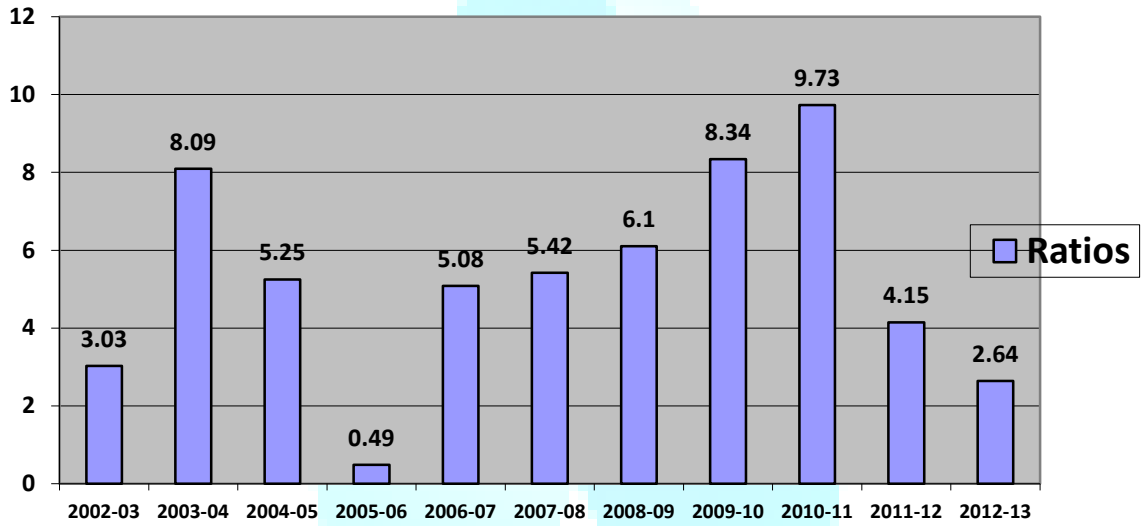
The return on investment ratio is presented in the Table 4.

TABLE 4: RETURN ON INVESTMENT RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED (Rs. in Crores)

Years	PBIT	Total Assets	Ratio(times)
2002-03	96.35	3178.11	3.03
2003-04	237.50	2935.04	8.09
2004-05	198.04	3772.45	5.25
2005-06	18.46	3753.85	0.49
2006-07	183.83	3616.39	5.08
2007-08	203.10	3744.08	5.42
2008-09	219.60	3602.27	6.10
2009-10	260.46	3121.49	8.34
2010-11	341.20	3508.31	9.73
2011-12	230.68	5557.43	4.15
2012-13	165.10	6261.23	2.64

Source: Compiled from Annual Reports

FIGURE 4: RETURN ON INVESTMENT RATIO OF NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED



The profit before interest and tax (PBIT) is Rs.96.35 Crores in 2002-03 and increased two and half folds to Rs.237.50 Crores in 2003-04 and 341.20 Crores in 2010-11. Total assets are more than PBIT. The return on capital employment ratio is 3.03 in 2002-03 and 8.09 in 2003-04. It is 5.06 for the rest of the period, i.e. 2004-08. Moreover, the ratio rapidly increased from 6.10 in 2008-09 to 9.73 in 2010-11 and again decreased in 2012-13. It may be concluded that profitability in terms of capital employee in NFCL was poor. The return on investment ratio was too low and therefore the profitability performance was quite dissatisfactory.

CONCLUSION

The long term funds of NFCL show the dynamic nature. The lowest fixed assets are Rs.2002.43 in 2003-04 and highest are 3261.38 in 2011-12. Long term funds are greater than fixed assets and current assets, when compared to fixed assets and current assets, fixed assets are more than current assets. The gross profit margin was fluctuating over the years. Despite fluctuations, the ratio was satisfactory. It may be inferred that NFCL was able to produce fertilizers and sell at low cost. The net profit margin ratio is (0.14) in 2002-03 and 3.80 in 2010-11. The profit performance was not satisfactory in NFCL as the ratio was too low. In other words, net profit was not commensurate with sales. Equity is greater than profit after tax. It is concluded that the profitability performance in terms of equity was very thin. The ratio was too low and for behind the standard norm of 12 per cent. It may be concluded that profitability in terms of capital employee in NFCL was poor. The return on investment ratio was too low and therefore the profitability performance was quite dissatisfactory. The net profit shall be improved in line with sales through effective operating and cost mechanisms. The profitability performance with regard to equity and capital employed shall also the improved by gearing up the variables of profitability. The return on investment shall be improved through effective cannons of finance. To this end, Capital budgeting techniques, operating cycle concept for estimation of working capital and leverage principle shall be initiated.

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IMPEDIMENTS FOR THE DEVELOPMENT OF AGRICULTURAL COOPERATIVES IN TOKE KUTAYE WOREDA/DISTRICT/, WEST SHEWA ZONE, OROMIYA REGION, ETHIOPIA

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ABSTRACT

Cooperatives have been accepted as a major vehicle for rural development. A little research has been done on impediments for the development of agricultural cooperatives at grassroots level. The objectives of the study were: to study the participation of cooperative members towards cooperative development; to study the major problems affecting the development of agricultural cooperatives in Toke Kutaye Woreda and to identify the suitable measures to overcome the inherent weaknesses of agricultural cooperatives development. Survey strategy was adopted for the study. In addition, some Participatory Appraisal Tools and techniques-mainly group discussions were employed to complement the survey statements, and multistage sampling procedure was used for selecting sample. Major findings revealed that the majority of members enjoyed the benefits of marketing (97.3%) and input supply (88.3%). 46.8 % and 40.5 % of members availed of the benefits of savings and credit respectively. Lack of cash credit led 87.4 %, 42.3 % and 36.7 % of the members to borrow from friends, relatives and moneylenders respectively. Improved seeds credit was low. In addition, limited purchase of grain, lack of timely supply of inputs, high storage expenses, low support from union and poor management of cooperative were identified. 27% of the members did not sell produce to cooperatives. Establishing rural saving and credit associations, market linkage for farmers' products with private businesses, timely supply of inputs, expansion of intensive agriculture, improving the fertility status of the soil and improved support of unions will increase the number of members. Stakeholders should, solve the impediments of agricultural cooperatives development. Further research in agricultural cooperative development should be conducted at grassroots level to attract the attentions of stakeholders.

KEYWORDS
Agricultural development, Agricultural input supply, Agricultural product marketing, Cooperatives development, rural development, Ethiopia.

1. INTRODUCTION

Like many other developing countries agriculture is the backbone of Ethiopia's economy. Special attention to the development of agricultural cooperatives was paid since 1995. The previous thirty five years cooperative life on all sectors had several problems. Development in Ethiopia did not change subsistence agriculture. There were economic, political and other changes that have had impact in agriculture in the country. Agricultural cooperatives have been established for the purpose of marketing of inputs and farmers' products. The farmer's business performance is related to the performance of the services of agricultural cooperatives for which the business relies on. The impediments at primary and union agricultural cooperative levels need attention. Members, chairmen and board of directors are generally responsible for the success or failure of their cooperatives so long that they get the necessary technical, managerial supports etc.

Farming plays several important roles in the national economy; it provides a means of living for more than 85% of the national population and accounts for 50 % of the GDP and 85 % of the export earnings of the country (MEDaC, 1999). Since the early 1970s, per capital agricultural production has been declining (Befekadu and Berhanu; 2000, Devenreux, 2000) which has made the country dependant on commercial imports of food and food aid, the later contributing the largest share (Clay et al. 1999). Low input use and complete dependence on natural rainfall and low output are the salient features of Ethiopian agriculture; and the overall result has been food insecurity in all its manifestations- chronic, cyclical and transitory at both national and household levels. At present, Ethiopia is one of the poorest and most food insecure countries in the world (Berhanu and Seid 1999; Mulat et al. 2004). Agriculture produces raw materials to manufacturing industries. Farming is the main source of food for household's consumption and the cash income of the majority of the rural population is mainly generated from agriculture. However, in spite of its importance to the national economy, Ethiopian agriculture has only remained at subsistence level and contributing little to the improvement of the living standard of the rural masses.

In Ethiopia, there are three well-known traditional cooperatives or self-help groups that still operate almost in all parts of urban and rural areas. ***Edir*****: -** It is similar with burial cooperatives or organization. ***Ekub*****:** It is a financial form of traditional cooperative formed voluntarily. ***Debo/ Wenfel/ Jigie:*** *Debo* is a system of farmer's cooperation during the time of farming, weeding, harvesting, trashing, and house construction etc. in the rural areas of the country (Veerakumaran, 2007).

Modern cooperative movement started in 1960 in Ethiopia during the regime of the emperor. The number of registered cooperative societies was 112 during the imperial government out of which 76 was farmers' cooperatives; while the rest consists of different sectors mainly handicrafts and marketing cooperatives. (Hagos, 1987)

The number of cooperative societies reached to well over 13,500 during the Derg government. After the fall of the Derg regime, a large number of cooperative societies was dismantled by their members for different reasons. (Hagos, 1987)

The Cooperative Proclamation No. 147/1998 identified clear goals and authorities, which supported a more conducive legal environment for the formation of Ethiopian cooperatives. The required human resource has been assigned starting from the *Woreda* to federal level. (Emana, 2009).

Cooperatives appear to operate on a significant scale in developing countries: studies have shown that over seven per cent of the African population is affiliated to primary cooperatives, and this number is increasing (Delvetere, 2008; Pollet, 2009). Agricultural cooperatives play an important role in food production and distribution, and in supporting long-term food security. Cooperatives are also sometimes seen as beneficial for conflict resolution, peace building and social cohesion.

Despite the dominant role of agriculture in the Ethiopian economy, the number of non-agricultural cooperatives outweighs the number of agricultural cooperatives. Approximately 37 per cent of the primary cooperatives are engaged in agricultural activities. Multipurpose agricultural cooperatives dominate the list of primary cooperatives (28 per cent) followed by saving and Credit Cooperatives (SACCOs), which are organized both in the rural and urban centres (26 per cent) (Emana, 2009).

The impediments of agricultural cooperatives' development at *Woreda* in Ethiopia have not been adequately studied. The study identified the major obstacles of agricultural cooperatives at *Woreda* level and suggested appropriate interventions. Past research on cooperative development concentrated at macro level (state and region levels). Hence, the study tried to identify the impediments of agricultural development at *Woreda* agricultural cooperatives

2. OBJECTIVES

The objectives of the study are the following:

1. To study the participation of cooperative members towards cooperative development;

2. To study the major problems affecting the development of agricultural cooperatives in Toke Kutaye *Woreda* and
3. To identify the suitable measures to overcome the inherent weaknesses of agricultural cooperative development

3. METHODOLOGY

3.1. METHODOLOGY AND DATA

Survey strategy was adopted for the study. In addition to the survey, some participatory appraisal tools and techniques mainly group discussions were employed to complement the survey statements and multistage sampling procedure was used for selecting the samples. Sample cooperatives were selected and sample members were selected from sample cooperatives. Sample non-members were selected from those who live around the sample cooperatives. Due to problem of inaccessibility farmers living far away from the sample cooperatives were not selected.

3.1.1. THE STUDY AREA

Toke Kutaye *Woreda* is one of the 20 *Woreda*s in West Shewa Zone of Oromiya Regional State of the Federal Democratic Republic of Ethiopia. The capital city of West Shewa Zone is Ambo town, which is located in Ambo Zuria *Woreda*. Ambo town is 125 kms. away from Addis Ababa on Addis Ababa - Nekemte road. The capital city of Toke Kutaye *Woreda* is Guder (after the division of Ambo *Woreda* into Ambo Zuria and Toke Kutaaye *Woreda* at the end of 2005/2006). Toke Kutaye *Woreda* has a total area of 65495 hectares (old Ambo was 149094 hectares; computed by author from OPEDWSZ 1998 and AWFEDO, 2008). In the year 2007/08, the average land-holding size per household was 1-2 ha. In the same year the number of households holding less than 1ha, 1-2 ha, greater than 2 for 3 ha, greater than 3 to 4 ha and greater than 4 ha accounts to 36.54%, 20.89%, 15.52%, 11.60% and 15.43% respectively Toke Kutaye *Woreda* Finance and Economic Development Office (TKWFEDO, 2008).

Toke Kutaye *Woreda* has 31 Peasant Associations (PAs). There were 17434 households in the rural areas in 2007/08. According to the census of 2007, the total population residing in the rural areas of the *Woreda* was 104003 (51986 male and 52017 female). Out of the total population of the *Woreda*, about 86.72% resided in the rural areas and 13.28% was urban dwellers (*Ibid*.).

Multipurpose agricultural cooperatives (MPAC) are formed from farmers of different peasant associations. There were 12 registered multipurpose agricultural cooperatives with total members of 8517 in 2006/07 and 9215 in 2007/08 and with a capital of Ethiopian Birr (ETB) 5589776.28 in both 2006/07 and 2007/08 years. In the years 2006/07 and 2007/08, male members accounted for 92.66% while female members accounted for 7.34% of the total members (TKWFEDO, 2008). Crop and livestock mixed farming system is practiced in the *Woreda*. The major crops cultivated include teff (*Eragrostis tef*), wheat, barley, maize, sorghum, noug, (*Guzotia Abyssinica*) and linseed. 12601 quintals of Diammonium Phosphate (DAP) was distributed to the farmers in 2006/7 in the *Woreda*. 5181.5 quintals of Urea was distributed to the farmers in 2006/7 in the *Woreda*. Improved seeds such as teff, wheat, maize, barley and chickpea were distributed to the farm households in 2006/07. About 74.5 %, 9.4 % and 8.9 % of the improved seeds distributed in the *Woreda* in 2006/07 accounted for wheat, chickpea, and barley respectively (Ibid). In the years 2006/07 and 2007/08, on average about 8.81 % of the farmers did not own any oxen, 11% owned one ox, 38.98 % owned a pair of oxen and 41.21 % of the farmers owned 4 and more oxen in the *Woreda* (Ibid).

Farm households in the *Woreda* own different types of livestock for draught purposes, milk, egg, and meat production. The total livestock population was 162245 in the *Woreda* in 2006/07 out of which cattle, sheep and goats accounted for 63.39%, 10.03% and 15.27% respectively. The total number of horses, donkeys and mules was 8464, 9284 and 600 respectively in 2006/07 in the *Woreda*. Horses, donkeys and mules each accounted for 5.22 %, 5.72 %, and 0.37 % respectively of the livestock population in the same period. The chicken population was 72189 in 2007/08. There were 72189 bee colonies in the year 2007/08 (TKWFEDO, 2008). The major livestock feed include open grazing, hay and crop residue Office of Planning and Economic Development for West Shewa Zone (OPEDWSZ 1998).

3.1.2. SELECTION OF THE STUDY UNITS AND RESPONDENTS

Out of 12 multipurpose agricultural cooperatives, 4 (about 33% of the multipurpose agricultural cooperatives) were purposively selected since they are accessible and found convenient to the researcher. Moreover, other factors like agro-ecological conditions, and dominant farming systems were considered. The selected sample multipurpose agricultural cooperatives were:

1. Mutulu multipurpose agricultural cooperatives - 22 kilometres (kms) from Ambo on Ambo - Guder - Mutulu road, where the MPAC serve for seven peasant association.
2. Toke Hamus Gebeya multipurpose agricultural cooperatives - 29 kms from Ambo on Ambo - Nekemte road, where the MPAC serve for one peasant association.
3. Toke Kombolcha multipurpose agricultural cooperatives - 56 kms from Ambo on Ambo – Nekemte road, where the MPAC serve for six peasant association
4. Wajira multipurpose agricultural cooperatives - 28 kms from Ambo on Ambo – Guder - Ababa - Wajira road, where the MPAC serve for one peasant associations

Sample multipurpose agricultural cooperatives (MPAC) members were selected at field level using simple random sampling technique. 32, 39, 13 and 27 MPAC members were randomly selected from Mutulu, Toke Hamus Gebeya, Toke Kombolcha and Wajira MPAC respectively. A total of 111 approximately 2.82 % of the members from the cooperatives was selected. About 1.7 % from Mutulu, 3.47% from Toke Hamus Gebeya, 3.63% from Toke Kombolcha and 4.74% from Wajira members were selected. The sample representative included cooperative executives and ordinary members of the selected cooperatives. Purposive sampling method was employed to select representatives from non-members living in and around the areas of the selected cooperatives. 87 sample non-member farmers were randomly selected from the vicinity of the selected cooperatives. 32, 29, 10 and 16 non-members were selected from Mutulu, Toke Hamus Gebeya, Toke Kombolcha and Wajira respectively. This makes the total respondents (members and non-members) to be 198.

Only 4 out of 12 MPACs were members of Ambo Union. All the sample cooperatives were members of Ambo Union. As from Ambo *Woreda* Cooperative Office data (before the division to Ambo Zuria *Woreda* and Toke Kutaye *Woreda*), the status of the sample cooperatives was classified as strong (1) medium (2) and new (1).

3.1.3. DATA COLLECTION AND ANALYSIS

The methods of data collection were a mixture of questionnaire survey (with both closed and open ended questions) and some participatory appraisal tools mainly group discussions with representatives of sample multipurpose agricultural cooperatives (for members) and representatives of non-members from three peasant associations. The agricultural development agents of the areas organized the group discussions. Discussions were held in the local language (in Oromifa) and interpreted by another person who was a graduate in rural sociology and extension and member of the Department of Cooperatives at Ambo College of Agriculture (at present Ambo University). The enumerators were given training on the content of the questionnaire, methods of data collection and on how to approach farmers. During the fieldwork, the researcher closely supervised the enumerators.

The secondary source of data included both published and unpublished information about the study area in general and cooperatives agricultural production in particular. Along with secondary data collection, several discussions with key informants and *Woreda* agricultural personnel were conducted to get insight about the study area and to assess the previously conducted research and development works. The study was conducted from July 1, 2005 to June 30, 2006. Data from respondents were collected in March 2006 and group discussions with selected farmers were conducted in the first week of April 2006. The collected data were processed through Statistical Package for Social Sciences (SPSS). Simple percentages and averages were used. The facts revealed by the farmers during the group discussions were also complemented to the survey statements.

4. FINDINGS AND DISCUSSIONS

The findings of the study are presented in two sub-chapters. Sub-chapter 4.1 deals with farmer members of MPAC while sub-chapter 4.2 deals with non-member farmers of Toke Kutaye *Woreda*.

4.1. FINDINGS AND DISCUSSIONS OF MEMBERS OF MULTIPURPOSE AGRICULTURAL COOPERATIVES

The results of Focus group discussion; questionnaire survey (with both closed and open-ended questions) are presented and discussed in this chapter.

4.1.1. GENERAL - PRELIMINARY DETAILS

TABLE 1: SAMPLE MPACS AND SAMPLE MEMBER RESPONDENTS IN TOKE KUTAYE *WOREDA*

S. No	Name of MPAC society	Number of member respondents	Percent
1	Mutulu	32	28.8
2	Toke Hamus Gebeya	39	35.1
3	Toke Kolbolcha	13	11.7
4	Wajira	27	24.3
	Total	111	100

Source: Computed from the survey data

4.1.2 PURPOSE OF JOINING IN THE COOPERATIVE

TABLE 2: MEMBERS PURPOSE TO JOIN MPAC IN TOKE KUTAYE *WOREDA*

Purpose	Response				Total	
	Yes	Percentage	No	Percentage	No. of Resp.	Percentage
Credit	59	53.2	52	46.8	111	100
Input	108	97.3	3	2.7	111	100
Marketing	95	88.3	13	11.7	111	100
Other	5	4.5	106	95.5	111	100

Source: Computed from the survey data

It is obvious from Table 2 that 97.3% of the respondents joined in cooperatives for getting input from the institution. Nearly 95 respondents (88.3%) were of the opinion that they have joined to avail the marketing facility given by the cooperatives. Only 59 respondents (53.2 %) of the respondents said that they have joined cooperatives for availing of a credit facility.

TABLE 3: MOTIVATION FOR ENROLLMENT OF MEMBERS TO JOIN MPACs

Category	Respondents				Total	
	Yes	Percentage	No	Percentage	Total	Percentage
Friends	13	11.7	98	88.3	111	100
Relatives	7	6.3	104	93.7	111	100
Other members	40	36	71	64		100
Cooperative leaders	65	58.6	46	41.4	111	100
Local Administrative Leaders	46	44.1	62	55.9	111	100
Community Elders	18	16.2	93	83.8	111	100
On their own	54	48.6	57	51.4	111	100
Others	1	0.9	110	99.1	111	100

Source: Computed from the survey data

The efforts taken by the cooperative leaders in this Woreda regarding the enrolment of membership is evident from Table 3 that 65 respondents (58.6%) were of the opinion that they have enrolled in cooperatives only because of the motivation given by the cooperative leaders. Next to cooperative leaders, 48.6 % of the respondents said that they have joined in cooperatives on their own. Local administrative leaders (44.1%) also contributed in motivating the public to join in the cooperative movement.

TABLE 4: MEMBERS' KNOWLEDGE ABOUT COOPERATIVE PRINCIPLES, BYLAWS AND HOW A COOPERATIVE IS ORGANIZED

Description	Responses				Total Response	
	Yes	Percentage	No	Percentage	Total	Percentage
Knowledge of cooperative Principles	3	2.7	107	96.4	110	100
Knowledge of cooperative bylaws	17	15.3	94	84.7	111	100
Knowledge how a cooperative is organized	15	13.5	96	86.5	111	100

Source: Computed from the survey data

It is clear from Table 4 that the majority of the respondents did not know the bylaws of the cooperative, the principles of cooperatives and how a cooperative is organized. Among these responses, 96.4 % of the respondents were of the opinion that they did not know the principles of cooperatives and 86.5 % of the respondents did not know how a cooperative is organized. 84.7 % of the respondents did not know the cooperative bylaws. Among those who responded that they knew the principles (2.7 %), none of them were able to state any one of the principles. Among those who responded that they knew how a cooperative is organized (7), 6.3% said to get organized and to work together, and (7) 6.3% said to pay shares and become members.

4.1.3 ECONOMIC BENEFITS DERIVED

TABLE 5: ECONOMIC BENEFITS WHICH MEMBERS DERIVED FROM MPAC IN THE STUDY AREA IN 2006/07

n=111						
Benefits	Yes	Percentage	No	Percentage	Total	Percentage
Credit	45	40.5	66	59.5	111	100
Input	98	88.3	13	11.7	111	100
Marketing	108	97.3	3	2.7	111	100
Savings	52	46.8	59	53.2	111	100

Source: Computed from the survey data

Cooperative members get organized to get a number of benefits. Table 5 discloses the economic benefits derived from cooperatives to its members. One can conclude from the above Table 5 that the vast majority (97.3 %) 108 of the respondents enjoyed the benefit of marketing from cooperatives. 98 respondents (88.3%) got the economic benefit of input supply. Rest of the 52 and 45 respondents (46.8 % and 40.5 % respectively) availed of the economic benefits with regard to savings and credit respectively.

4.1.4 SOURCE OF BORROWINGS OF MEMBERS OF MPAC

TABLE 6: SOURCE OF BORROWINGS OF MEMBERS OF MPAC IN THE STUDY AREA IN 2006/07

Source	Yes	Percentage	No	Percentage	Total	Percentage
Relatives	47	42.3	64	57.5	111	100
Friends	97	87.4	14	12.6	111	100
Money lenders	41	36.7	70	63.1	111	100
Others	1	0.9	110	99.1	111	100

Source: Computed from the survey data

Borrowings become the part and parcel of the peasant community. The right source will lead the farmers in right direction. From Table 6 it is very clear that the majority of the respondents (87.4 %) borrowed money from their friends, 36.7 % of the respondents were under the clutches of moneylenders, and 42.3 % of the respondents depended upon their relatives for their monetary needs. It is good to see that 70 respondents (63.1 %) got borrowings from other sources other than from the moneylenders. No member was able to borrow from the cooperative. This indicates that the credit facility has to be strengthened. It is clear from the table that some of the members borrowed from more than one source.

4.1.5 TYPE OF CREDIT IN KIND FOR MEMBERS OF MPAC

TABLE 7: TYPE OF CREDIT IN KIND WHICH MEMBERS OF MPAC GOT IN THE STUDY AREA IN 2006/07

Type of input	Yes	Percentage	No	Percentage	Total	Percentage
Fertilizer	100	90.1	11	9.9	111	100
Improved Seeds	20	18	91	82	111	100
Herbicides	77	69.4	34	30.6	111	100
One or more of the above four	102	91.9	9	8.5	111	100

Source: Computed from the survey data

Issue of components like fertilizer, seeds, herbicides etc. credit in kind, to the members is the major subsidiary business to all cooperatives. It is very clear from Table 7 that 100 respondents (90.1%) availed fertilizer from the cooperatives and 77 respondents (69.4%) procured herbicides from the cooperatives. Only 18 % of the respondents purchased improved seeds from the cooperatives. The supply of improved seeds to farmers is low.

4.1.6 ADVANTAGES IN SELLING PRODUCT THROUGH COOPERATIVES

TABLE 8: ADVANTAGES IN SELLING PRODUCT THROUGH COOPERATIVES IN THE STUDY PERIOD IN THE STUDY AREA

Advantages	Yes	Percentage	No	Percentage	Total	Percentage
Price Advantage	33	29.7	78	70.3	111	100
No cheating while weighing	55	49.5	56	50.5	111	100
No cheating in payment	9	8.1	102	91.9	111	100
Dividend received	78	70.3	33	29.7	111	100
Members who sold produce to cooperative	84	75.7	27	24.3	111	10

Source: Computed from the survey data

There are so many advantages one can avail of from the cooperatives by way of selling their agricultural produces. 75.7 % of the members sold their produce to the cooperatives while 24.3 % sold their produce to others than the cooperatives. In Table 8 some of the advantages are listed (believed to exist) by the respondents, among all the advantages no cheating in weighing stood first 49.5 %, next comes price advantage (29.7 %), cheating in payment was said by 9 (8.1%) of the respondents. The reasons why 24.3 % of the respondents didn't sell to their cooperatives include 3.4 % of them said that the cooperatives purchased occasionally, 4.5% believed that the cooperatives did not offer good prices, 9% believed there was no surplus generated from the cooperatives and 4.5% believed other different reasons.

TABLE 9: AMOUNT OF MONEY INCURRED FOR DAP AND UREA BY COOPERATIVE MEMBERS IN THE *WOREDA* IN THE STUDY YEAR

Fertilizer	Amount paid in Birr for fertilizers								Did not purchase		Total	
	201 - 250		250-300		301-400		above 400					
		Number	%	Number	%	Number	%	Number	%	Number	%	
DAP	12	-	0	2	1.8	50	45.1	47	42.3	12	10.8	111
Urea	41	12	10.8	9	8.2	47	42.3	2	1.8	41	36.9	111

Source: Computed from the survey data

Table 9 depicts that 1.8 %, 45.1%, and 42.3%, of the respondents incurred 251-300, Birr 301-400 Birr and over 400 Birr for DAP respectively while 10.8%, 8.2 %, 42.3 %, and 1.8 % incurred% 201 – 250, Birr 250-300 Birr and Birr 301-400 Birr and above 400 Birr for urea respectively.

To the question, for the price paid in cooperative is low or high, 67.6 %, 21.69 % and 10.8% said price is low, high and didn't know respectively. According to the respondents, the high price was due to high inflation and interest (3.6 %), storage (2.7 %), did not know (4.5%) and for other different reasons (8.1 %). Those who responded that the price was low justified that cooperative are not for profit (46.8 %), burden reduced due to advance payment (3.6%), traders charged high price (1.8 %), didn't know (9.9 %) and for other reasons (5.4 %).

4.1.7 MEMBERS' ECONOMIC CONDITION AFTER BECOMING COOPERATIVE MEMBERS

TABLE 10: MEMBERS' ECONOMIC CONDITION AFTER BECOMING COOPERATIVE MEMBERS IN THE *WOREDA* IN THE STUDY YEAR

Particulars	Response				Total no of respondents	
	Yes	Percentage	No	Percentage	Total	Percentage
Additional land	8	7.2	103	92.8	111	100
Better house condition	43	38.7	68	61.3	111	100
Livestock	40	36.0	71	64	111	100
Believed economic condition improved	47	42.3	63	56.8	111	100

Source: Computed from the survey data

It is very clear from Table 10 above that the majority of the respondents were of the opinion that they had some kind of improvement in their economic condition due to their membership in cooperatives. 7.2% to 42.3 % of respondents said that they had some economic improvement in their life.

4.1.8 REASONS FOR SLOW GROWTH OF THEIR COOPERATIVES AS PERCEIVED BY MEMBERS

TABLE 11: MEMBERS' VIEWS REGARDING GROWTH, SATISFACTION WITH THE SERVICE, BOARDS' EFFICIENCY AND EMPLOYEES IN THEIR COOPERATIVES

Description	Response						Total	
	Yes	%	No	%	Don't know	%	No. of Respondents	%
Cooperatives showed growth	89	80.2	20	18	2	1.8	111	100
Satisfied with the variety of services	78	70.3	32	28.8	1	0.9	111	100
Think board is efficient	85	76.6	6	5.4	20	18	111	100
Think the cooperatives have enough employees	40	36	57	51.4	14	12.6	111	100
Cooperatives' employees are courteous and helpful	56	50.5	28	25.2	27	24.3	111	100
Cooperatives have enough capital	48	43.2	46	41.4	17	15.3	111	100

Source: Computed from the survey data

Table 11 reveals that 80.2 % of members believed that their cooperative showed growth while 18 % believed that their cooperative did not show any growth. 1.8% of members said they did not know. Data from Open Ended Question Responses (OEQR) show that among those who perceived that their society did not show growth believed that they didn't see cooperative expansion (1.8 %), felt that there was corruption (1.8 %), felt board members did not work in team spirit (1.8 %), there was no input supply other than fertilizer (0.9 %), the cooperative had no sufficient money (1.8 %), for other different reasons (9.9 %). Regarding the number or variety of services of the cooperatives, 70.3 % of members were satisfied while 28.8 % were not satisfied. Data from OEQR show that their reasons for dissatisfaction included no cash credit (18 %), cooperatives have very limited services (5.4 %), no organized marketing services (1.8 %), and for other different reasons (6 %). Data from OEQR show that regarding additional services by the society, members proposed cash credit services (40.5 %), supply of consumer goods at fair price (39.6 %), timely purchase of agricultural products (5.4 %), and for other different reasons (9 %). 76.6% (85) of respondents think that the board is efficient. 36% (40) of respondents think that the cooperatives have enough employees 56.5% (56) of respondents think that cooperatives' employees are courteous and helpful. Only 43.2 % (48) of respondents think that cooperatives have enough capital.

4.1.9 PROBLEMS FACED BY THE SOCIETY AS PERCEIVED BY MEMBERS

TABLE 12: PROBLEMS FACING COOPERATIVES AS PERCEIVED BY MEMBERS

Members' impression	**Yes**	**%**
Problems related to funds		
1. Shortage of cash	28	25.2
2. Corrupt	9	8.1
3. No problem	30	27
4. Don't know	43	38.7
5. Others	1	0.9
Total	111	100
II. Problem related to marketing		
1. Don't purchase grain regularly	17	15.3
2. Store grain they purchase	4	3.6
3. No problem	51	45.9
4. Low price for produce	4	3.6
5. Don't know	25	22.5
6. Others	10	9
Total	111	100
III. Problem related to input		
1. No timely supply of inputs	27	24.3
2. High price of inputs	10	9
3. No problem	62	55.9
4. Don't know	9	8.1
5. Others	3	2.7
Total	111	100
IV. **Problem related to stores**		
1. Shortage of storage capacity	24	21.6
2. High storage expense	9	8.1
3. No storage problem	61	55
4. Don't know	15	13.5
5. Others	2	1.8
6. Total	111	100
V. **Problem related to staff (employees)**		
1. Shortage of staff	9	8.1
2. Misunderstanding of staff	4	3.6
3. No problem of staff	26	23.4
4. Don't know	67	60.4
5. Others	5	4.5
Total	111	100
VI. **Problem related to board and chairman**		
1. Poor management capacity	2	1.8
2. Don't work cooperatively	1	0.9
3. No Problem	62	55.9
4. Don't Know	38	34.2
5. Others	8	7.2
Total	111	100
VII. **Problem related to government**		
1. No sufficient government control	6	5.4
2. High fertilizer price	5	4.5
3. No problem	65	58.6
4. Don't know	30	27
5. Others	5	4.5
Total	110	100

Source: Computed from the survey data

Table 12 reveals problems facing cooperatives as perceived by members. Regarding problems related to funds members 25.2 % (28), and 8.1% (9) of the respondents said that the cooperatives have shortage of cash and problem corruption respectively, 27 % (30) and 38.7 % (45) of the respondents viewed that the cooperatives do not have problems and do not know respectively.

Regarding problems related to marketing members revealed that cooperatives do not purchase grain regularly 15.3 % (17), cooperatives store the grain they purchase 3.6 % (4), cooperatives pay low price for produce 3.6 % (4), believe that there is no marketing problem 45.9 % (51) some said that they don't know 22.5% (25) some stated other reasons 9 % (10).

Regarding problems related to input members revealed that cooperatives do not supply inputs on time 24.3% (27), believe cooperatives charge high price for inputs 9 % (10), believe that there is no problem with input supply 5.9 %9 (62) , some said that don't know 8.1 %(9), some stated other reasons 2.7 % (3)

Regarding problems related to stores members revealed that shortage of storage capacity 21.6 % (24), some said that there is high storage expense 8.1 % (9); some said that there is no storage problem 55% (61); some said that they do not know 13.5 % (15); some said other reasons 1.8 % (2).

Regarding problems related to staff (employees) members revealed that there is shortage of staff 8.1 % (9), some said that there is misunderstanding of staff 3.6 % (4), some said that there is no problem of staff 23.4 % (26), some said that they don't know 60.4 % (67), some said other reasons 4.5 % (5).

Regarding problems related to board and chairman members revealed that board and chairman poor management capacity 1.8 % (2), the don't work cooperatively 0.9 % (1), some revealed that that there is no problem 55.9 % (62), some said that they don't know 34.2 % (38), some said other reasons 7.2 % (8).

Regarding problems related to government members revealed that there is no sufficient government control 5.4 % (60) expressed that there is high fertilizer price, 4.5 % (5), believed that there is no problem 58.6 % (65), some said that they don't know 27 % (30), some said other reasons 4.5% (5)..

Table 12 further reveals that shortage of cash, lack of regular purchase of grain by the cooperatives, lack of timely supply of inputs, high price of inputs, and shortage of storage capacity are problems that need attention for better development of cooperatives. The cooperatives should purchase grain regularly from members to improve its output marketing efficiency. Rural saving and credit cooperatives need to be established to improve cash credit services. Regarding problems related to employees, board and chairman, and government, there is no serious problem as such which is positive and encouraging for cooperative development in the *Woreda*.

4.1.10 FOCUS GROUP DISCUSSION FINDINGS (MEMBERS OF MPAC)

A team of researchers went to the area with the objective of assessing major problems encountering cooperative societies in the area. Accordingly, major problems facing cooperative societies in the area were assessed with active participation of farmers as members.

As to the procedure followed in conducting the focus group discussion, chairpersons of cooperative societies, administrators of peasant association, opinion leaders and community development workers were contacted to arrange the group discussion meeting. 12 members of cooperative societies were established in the area for purpose. Accordingly, the major problems facing the cooperative societies in the area and opportunities were assessed and analyzed with the help of PRA techniques. The points raised in the focus group discussion conducted are summarized as follows.

The participants of the focus group discussion reached consensus on the following issues.

4.1.10.1 **BENEFITS OF COOPERATIVE SOCIETIES (SOCIAL AND DEMOCRATIC)**

i. SOCIAL BENEFITS OF COOPERATIVE SOCIETIES

The cooperative societies in the area have the following social benefits:

- Non-members wishes to be like members of cooperative societies.
- Members are seen as good examples for non-members to attract them to the cooperative societies.

ii. DEMOCRATIC BENEFITS OF COOPERATION IN THE AREA

The cooperative societies in the area are fully democratic and have following democratic benefits:

- Members have got full right to elect and being elected
- Duties and responsibilities are clearly described for members
- Members are convinced about the importance of cooperatives
- Meetings are organized to attract and motivate non-members.

Even though the above benefits exist, the cooperative societies in the area are lacking the following democratic benefits:

- There is nominal cooperation
- Duties and responsibilities are not clear for members
- Members are not convinced about the importance of cooperatives
- There were no meetings organized to attract and motivate non-members.

4.1.10.*2* **SERVICES PROVIDED BY COOPERATIVE SOCIETIES IN THE AREA**

The cooperative societies in the area are providing the following services on credit basis:

- Provision of Agricultural inputs like fertilizer, improved seed and herbicides
- Provision of poultry packages
- Provision of fattening technologies

As to the preference of service provision, the group participants agreed that fertilizer is the first choice in the area because of its importance to sustain the livelihood of farmers.

The cooperative societies in the area are providing the following services on credit basis:

- Provision of agricultural inputs like fertilizer, improved seed (wheat, maize and teff).
- Grain Marketing.

As to the preference of service provision, the group participants agreed that improved seed and fertilizer are the first choices in the area because of their importance to sustain the life of farmers.

4.1.10.3 PROBLEMS RELATED TO SERVICE PROVISION IN THE AREA

The following problems were agreed upon as problems related to service provision of cooperative societies in the area:

- Less supply and high demand of improved seeds of wheat, maize and teff.
- Lack of adequate research on improved agricultural technologies and soils as prerequisite for wide scale agricultural production.
- Serious prevalence of cattle diseases.
- Lack of research on livestock diseases.
- Poor communication infrastructure.
- Lack of quality agricultural inputs.
- Lack of consumable food and non-food items
- Interference of merchants.

4.1.10.4. PROBLEMS OF COOPERATIVE SOCIETIES IN THE AREA

i. PROBLEMS RELATED TO THE CONSTITUTION OF COOPERATIVES

Regarding problems related to constitution of cooperatives, the cooperative societies in the area have no problems. As a witness, they reported that:

- The geographical coverage is not a problem that even people from other peasant associations are becoming members.
- The objective of the cooperative society is clear for all members of the society who are residing both at nearby places and at distant places from the cooperative societies.

- People in the area are not afraid of bankruptcy and corruption of cooperative leaders and they are becoming members based on the historical success story of the cooperative society.
- The membership of the cooperative societies is on voluntary basis. Farmers are becoming members of cooperative societies based on their willingness.

ii. PROBLEMS RELATED TO MANAGEMENT OF COOPERATIVES

Regarding problems related to management of cooperatives, the cooperative societies in the area have the following problems:

- There is implementation problem
- Committee members are not in the office most of the time
- Lack of transparent management system
- Equity problems in distribution of scarce cooperative services like improved seed of maize
- There is no strong bond between the members and management bodies of the cooperative societies

iii. PROBLEMS RELATED TO ADMINISTRATION OF COOPERATIVES

Regarding problems related to management of cooperatives, the cooperative societies in the area are not having problems. The interference of the government in the administration of cooperatives is perceived as positive action. The facilitation of government in providing training and agricultural inputs was highly acknowledged by the group discussion participants. The only problem raised by the group discussion participants was the skyrocketing of prices of agricultural inputs and the low price of agricultural products. However, the following points were suggested to get the attention of the government in the area:

- Building of storage facilities
- Subsidizing prices of agricultural inputs
- Discouraging the interference of merchants in grain marketing and input delivery
- Creating favorable environment for cooperative societies

iv. PROBLEMS RELATED TO THE INTERFERENCE OF MERCHANTS

The participants reached consensus that there is serious interference of merchants to misguide members from established goals and objectives of cooperative societies in the area.

5.2 FINDINGS AND DISCUSSIONS OF NON-MEMBERS OF MPAC

The results of Focus group discussion; questionnaire survey (with both closed and open-ended questions) are presented and discussed in this chapter.

4.2.1. GENERAL -PRELIMINARY DETAILS

TABLE 13: NON-MEMBERS' SAMPLE POPULATION BY TYPE OF SOCIETY

Society	Number of respondents	Percent
Mutulu	32	36.8
Toke Hamus Gebeya	29	33.3
Toke Kombolcha	10	11.5
Wajira	16	18.4
Total	87	100

Source: Computed from the survey data

Table 13 shows the non-members' sample population by type of society. The reason why the non-member respondent is low is because of the influence of the purposive sampling of non-members' selection around the sample cooperatives. This may be because most of the farmers who live in the vicinity of the office of the MPACs are members of MPACs.

4.2.2 REASONS FOR NOT JOINING COOPERATIVES

TABLE 14: NON-MEMBERS' REASONS FOR NOT JOINING IN COOPERATIVES

Reasons	Yes	Percentage	No	Percentage	Total	Percentage
Not interested	6	6.9	81	93.1	87	100
Corrupt Administration	2	2.3	85	87.7	87	100
Inefficient Administration	3	3.4	84	96.6	87	100
Cannot afford to pay the fees	67	77	20	23	87	100
Others	12	13.8	75	86.2	87	100

Source: Computed from the survey data

The researcher wanted to know the reasons why non-members did not join in the cooperatives. Table 14 depicts the reasons why non- members did not join in cooperatives. It is evident from the above table that a good majority of the respondents 67 in number (77 %) were of the opinion that they didn't have enough money to pay for the share subscription and entrance fee, 6.9% of the respondents said that they didn't have any interest in becoming member and 3.4 % of the respondents boldly were of the opinion that the administration is inefficient. Among those who gave other reasons 3.4 % of them said that they did not know the advantage of cooperative and the other 10.4 % stated different reasons.

TABLE 15: COMPARISON OF BENEFIT FOR NON-MEMBERS BETWEEN COOPERATIVES AND OPEN MARKET MERCHANTS

Comparison points	Yes	%	No	%	Total	%
Good price	16	29.9	60	10.1	86	100
Advance Money	12	13.8	75	86.2	87	100
Immediate payment	15	17.8	72	82.8	87	100
Others	2	2.3	-	-	-	100

Source: Computed from the survey data

Most of the non-members had a feeling that they pay higher price for inputs to open market merchants than the cooperatives. Table 15 also reflects the same feeling of the non-members. Most of the respondents (86.2 %) were of the opinion that the cooperatives did not provide advance money like private market players and 82.8 % of the non-members said that there was no immediate payment done by the cooperatives but only 16 respondents (29.9 %) were of the opinion that cooperatives were paying good price for their produces.

Cooperatives were generally expected to pay higher price for produces to members. Because of cash shortage of cooperatives and members' high need for cash, farmers appreciate selling produce in the market at a price even lower than the cooperatives. The price difference was the cost paid for getting the cash when needed. Cash shortage of the cooperatives was the cause for not purchasing farmers' produce when they needed to sell their produce.

TABLE 16: NON-MEMBERS' RESPONSES TO THE QUESTION IF THEY HAVE INTENTION TO JOIN IN COOPERATIVE AND THROUGH WHOM THEY JOINED

Particulars	Yes	%	No	%	Total	%
Own	81	93.1	6	6.9	87	100
Board Member	7	8	80	92	87	100
Other cooperative member	10	11.5	77	88.5	87	100

Source: Computed from the survey data

It is obvious from table 16 that 81 respondents (93.1 %) have an idea to join in the cooperative; they said the decision is taken by their own. Members also motivated some of the respondents (10 in number, 11.5%) to join in cooperatives.

4.2.3 FOCUSED GROUP DISCUSSION (FGD) FINDINGS OF NON-MEMBERS

The participants of the FGD expressed their views on the following points:

Regarding the utilization of services of cooperative societies, the group discussion participants agreed that services are not provided for non-members because of the rules and regulation. Nevertheless, non-members are getting services indirectly through members.

Regarding their interest to become members of cooperative societies, they reached to the consensus that they are very much interested to become members of the cooperative societies.

Regarding the proposed solution to attract non-members for membership, they reached to the consensus that exemplary work about the advantages of cooperatives in the area and demonstration of successful cooperative societies via experience exchange field visits are the two important events to happen in the area.

Regarding their general perception about cooperatives, they reached to the consensus that cooperatives are important elements to enable farmers to alleviate the complex socio-economic problems in the area. As suggested by the group discussion participants the most important thing to be done in area is to support cooperative societies in the area through education of cooperative principles to members and arrangement of experience exchange field visits for both members and non-members. On top of that, proper management of cooperatives and government interference in creating favourable environment are suggested for healthy and successful cooperatives.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS AND RECOMMENDATIONS ON MEMBER RESPONDENTS' FINDINGS

The study attempted to identify important problems, which influence agricultural cooperative development in West Shewa zone of Oromiya Region, Toke Kutaye *Woreda*.

5.1.1 IMPEDIMENTS

5.1.1.1 PURPOSE OF JOINING COOPERATIVES AND CREDIT FACILITY

The purposes of members' joining cooperatives were to avail the marketing facility (88.3 %), to get input (97.3 %) and to get credit facility (53.2 %). The purpose of members' joining cooperatives was fulfilled except credit facility. Moreover, 59 % of the respondents got the economic benefit of saving in the cooperatives. The study in general revealed that about 66.3% believed that their purpose of joining of cooperatives was fulfilled while 33.7 % of the respondents did not have that their purpose of joining of cooperatives was fulfilled. 40.5 % of member respondents revealed that they got economic benefits from joining cooperatives. Regarding improvement in economic benefit after becoming member of cooperatives, members revealed that they had saving facility provision (52.3 %), saved money (45 %) and got income increased (29.7 %). The majority of the respondents were of the opinion that they did not see any kind of improvement in their economic condition due to their membership in cooperatives.

The majority of the member respondents (87.4 %) borrowed money from their friends and 36.7 % of the respondents were under the clutches of moneylenders and rest of the 42.3 % of the respondents depended upon their relatives for their monetary needs. It is good to see that 70 respondents (63.1 %) who got borrowings from other source other than from the moneylenders. No member was able to borrow from the cooperatives. This indicates that the cash credit facility has to be strengthened. It is clear that some of the members borrowed from more than one source. In fact, the finding did not reveal whether they got the amount of credit they needed or not. Experiences of USAID and the visionary Bank of Abyssinia showed that cooperatives have been able to access credit and have sufficiently demonstrated their creditworthiness (100% on-time repayment) (Assefa, 2011). Therefore, establishment of rural saving and credit cooperatives by farmers or rural people belong to the means that creates access to credit for farmers. Even though the amount of capital that can be accumulated by credit cooperatives operating at the local level is low, the earlier they establish their saving with what they can afford the better will be their business future. Access to credit is necessary for success. Financial cooperatives contribute to poverty reduction in various ways. Access to credit to finance micro, small and medium enterprise generates employment and incomes. Low-cost savings facilities for the poor and small depositors help to reduce members' vulnerabilities to shocks such as medical emergencies, and encourage future investments, including education and small business enterprises (UN, 2009**).** The study revealed that 90.1 %. 18% and 69.4 % of the respondents got fertilizer, improved seeds and herbicide credit in kind respectively from their cooperatives.

The type and quantity of improved seeds supplied was very small showing that improved seed supply remains a serious constraint of agricultural production in the study area.

5.1.1.2 SELLING PRODUCE

Cooperatives were generally expected to pay higher price for produces to members. Because of cash shortage of cooperatives and members' high need for cash, farmers appreciate selling their produce in the market at a price even lower than the cooperatives. The price difference was the cost paid for getting the cash when needed. Cash shortage of the cooperatives was the cause for not purchasing farmers' produce when they needed to sell their produce.

5.1.1.3 ADVANTAGES IN SELLING THROUGH COOPERATIVE

The study revealed no cheating in weighing (49.5 %), price advantage (29.7 %), no cheating in payment (8.1%), were the advantages members enjoyed by selling their produce through their cooperatives. 75.7 % of the members sold their produce to the cooperatives while 23.4 % sold their produce to others than the cooperatives. 67.6 % (75) of the respondents believed that that price paid for inputs in cooperatives was low.

5.1.1.4 KNOWLEDGE OF HOW A COOPERATIVE IS ORGANIZED, BYLAWS OF THE COOPERATIVE AND PRINCIPLES OF COOPERATIVES

The majority of the respondents did not know how a cooperative is organized, the bylaws of the cooperative and the principles of cooperatives. Among those who responded that they know the principles (2.7 %), none of them was able to state any one of the principles.

5.1.1.5 PARTICIPATION

68.5 % (76) of members said that they participated in the general assembly whereas 34.2 % (38) admitted that they did not participate in the general assembly. In the general meeting discussion, 65.8 % (73) revealed that they participated while 31.5 % (35) said that they did not participate. 21.6 % (24) stood for election.

5.1.1.6 PROBLEMS RELATED TO THE INTERFERENCE OF MERCHANTS

The participants reached consensus that there is serious interference of merchants to misguide members from established goals and objectives of cooperative societies in the area.

5.1.1.7 GROWTH OF COOPERATIVES AND VARIETY OF SERVICES OF THE COOPERATIVES

80.2 % of members believed that their cooperative showed growth while 18 % believed that their cooperative did not show any growth. Regarding the number or variety of services of the cooperatives, 70.3 % of members were satisfied while 28.8 % were not satisfied.

5.1.1.8 GENERAL PROBLEM

Shortage of cash, lack of regular purchase of grain by the cooperatives, lack of timely supply of inputs, high price of inputs, and shortage of storage capacity are problems that need attention for better development of cooperatives. The cooperatives should purchase grain regularly from members to improve its output marketing efficiency.

5.1.2 OPPORTUNITIES

The vast majority of the respondents believed that it is useful to be member of MPAC, and 13.5 % said that it is not wasteful. The MPAC should improve its services to change the attitude of the 4.5 % of its members.

5.2.1.1 MOTIVATION TO JOIN IN COOPERATIVES

About two third of the member respondents revealed that they have enrolled in cooperatives only because of the motivation given by the cooperative leaders (58.6 %). Next to cooperative leaders, 48.6 % of the respondents said that they have joined cooperatives on their own. Local leaders (44.1%) also contributed in motivating the public to join in the cooperative movement. About half of the respondents were motivated by local leaders and cooperative leaders.

The major crops that cover most of the arable land area were wheat, teff *(Eragrostis tef),* maize, sorghum and faba bean, shows the most largely produced crops in the *Woreda* were wheat, teff, maize and sorghum in 2004/05.

27 % (30), 14.5 % (16), and 18.9 % (21) of wheat producers were not able to retain for seed, food and market respectively. 40.5 % (45), 23.4 % (26) and 42.3% (47) of teff producers were not able to retain for seed, food and market respectively. 82.2 % (99), 55.9 % (62) and 70.3 % (78) maize producers were not able to retain for seed, food and market respectively. 86.5 % (96), 73 % (81) and 80.2 % (89) of Sorghum producers were not able to retain for seed, food and market respectively. Quite a significant number of member farmers were not in a position to retain for seed, food and market from their major crops production. The intervention options to alleviate this problem may include timely supply of inputs, expansion of intensive agriculture through the adoption of appropriate crop technologies and improving the fertility status of the soil by adopting appropriate soil and water conservation strategies.

This issue requires further study.

5.1.2.2 ATTITUDE, VIEWS OF MEMBERS ON *WOREDA* COOPERATIVE BUREAU OFFICIALS

The majority of members showed positive attitude to the leaders and *Woreda* Cooperative Bureau officials. It is encouraging to have such high positive altitude of members towards the above groups. Attention should be given to the needs of other members to increase the confidence of members on *Woreda* Cooperative Bureau officials.

5.3 CONCLUSIONS AND RECOMMENDATIONS ON NON-MEMBER RESPONDENTS' FINDINGS

5.3.1 IDEA TO JOIN THE COOPERATIVES

The study showed that about 97 % of the respondents have an idea to join in the cooperative and the decision was taken by their own. Cooperative members also motivated some of the non- member respondents (11.5%) to join in cooperatives.

5.3.2 PURPOSE BEHIND THE JOINING IN COOPERATIVE INSTITUTION

The majority of the respondents (93.1 %) were of the opinion that getting inputs from the cooperatives was the major purpose behind the joining in cooperative institution. 72 respondents (nearly 83 %) told that availing marketing facilities was another reason to join in cooperatives. The FGD revealed that the services of cooperative societies were not provided for non-members because of the rules and regulation. Nevertheless, non-members were getting services indirectly through members.

50.5 % of the respondents acquired inputs from the market while 48.3 % got from MPAC. 69 % of the respondents sold their produce in the market and to merchant while 17.2 % sold to cooperatives. Non-members had used the services of the cooperatives. Improving the type and quantity of the services will further attract non-members to join in cooperatives.

The views of the non-members were good and reflected the encouraging efforts of both the managers and the employees and created good impression towards the cooperative in the *Woreda*. In fact, more effort should be exerted to change the attitude of those who rated the manager and the employees as poor.

The majority of the respondents viewed that there was no much political influence in the activities of cooperatives. According to some respondents, the government is not helping the cooperatives. Their reasons included that the government was not financing any fund to cooperatives (2.3 %) and the government was not checking corruptions in cooperatives (8%). Non-members will learn that cooperatives are self-help groups when they join in cooperatives.

The study revealed the reasons why non-members did not join the cooperatives. Their reasons were that they did not have enough money to pay for the share subscription and entrance fee (77 %), did not have any interest in becoming member (6.9%) and were of the opinion that the administration was inefficient (3.4 %). Gabre-Madhin et al. found also that the reasons why non-members do not join cooperatives among others, fees are too high compared to benefits (Gabre-Madhin et al. 2003).

Most of the respondents revealed that the cooperatives did not provide advance money like private market players (86.2 %) and there was no immediate payment done by the cooperatives (82.8 %) but only 26 respondents (29.9 %) were of the opinion that cooperatives were paying good price for their produces.

5.3.4 INFLUENCE OF NON-MEMBERS TO JOIN MPAC

Non-member respondents heard about cooperatives from cooperative leaders (46.2 %) of the area, from cooperative members (37.9 %) friends (26.4 %), relatives (24.1 %). Cooperative leader and cooperative members contributed a lot to influence non-members to join MPAC.

5.3.5 KNOWLEDGE OF THE PRINCIPLES OF COOPERATIVES AND HOW A COOPERATIVE IS ORGANIZED

Few non-member respondents knew the principles of cooperatives (1.1 %) and how a cooperative is organized (10.3 %). None of them was able to state the principles and to explain how a cooperative was organized. About 98 % and 90 % of the respondents did not know the principles of cooperatives and how a cooperative was organized respectively.

5.3.6 PREVENTION TO JOIN COOPERATIVES

It is interesting to know that the chairman and board members of the cooperatives prevented the non-members to join in cooperatives. The study revealed that the chairman and board members of the cooperatives prevented 4.6 % of the non-members to join in cooperatives

Only a very meager number of respondents told that they were not able to get the recommendation from the board members and from the chairman (1.1 %). Almost all the respondents 96.7% (84) rejected the reasons like "no good opinion on me" and previous enmity jealousy for preventing them from membership. However, most of respondents were of the opinion that no administrative person prevented them to join cooperatives.

5.3.7 PRODUCTION AREA

About 88.7 % of non-member farmers produce in an area up to 1.5 hectare while only 11.3 % produce wheat and teff on 1.5 up to 3.5 hectares. No farmer produced on greater than 3.5 hectares

43.7 % (38), 35.6 % (31) and 53.9% (46) of wheat producers were not able to retain for seed, food and market respectively. 36.6 % (32), 25.3 % (22) and 54 % (47) of teff producers were not able to retain for seed, food and market respectively 79.3 % (69), 69 % (60) and 95.4 % (85) of maize producers were not able to retain for seed, food and market respectively. Quite a significant number of non-member farmers were not in a position to retain for seed, food and market from their major crop production. The intervention options to alleviate this problem may include timely supply of inputs, expansion of intensive agriculture through the adoption of appropriate crop technologies and improving the fertility status of the soil by adopting appropriate soil and water conservation strategies. This issue requires an in depth study.

Most of non-members viewed that they did not have any such purpose for visiting the cooperatives in the area. Only very meager number of respondents accepted the purpose of visiting the cooperatives. Out of 87 respondents, only 5 respondents (5.7 %) said that they liked to know the working of the cooperatives. 95.4 % of the respondents said that the cooperative location is near to them while 4.6 % said that the location is far for them.

5.3.8 NO TALK TO THE CHAIRMAN

Most of the non-members respondents did not talk to the chairman. The reasons were no purpose to talk (13.8 %), did not know the chairman (4.6 %), didn't have time (2.3 %), didn't talk because not member (3.4 %), and for other different reasons (6.9 %).

5.3.9 ATTITUDE AND VIEWS

The views of the non-members on both the manager and the employees (95.4 %) is good and reflects the encouraging efforts of both the managers and the employees and created good impression towards the cooperative in the *Woreda*. In fact, more effort should be exerted to change the attitude of those who rated the manager and the employees as poor (4.5 %).

Non-member respondents believed that the *Woreda* cooperative promotion officials made proper supervision (59.8 %); the *Woreda* cooperative promotion officials guided the cooperative properly (55.2 %); the government was encouraging the promotion of cooperatives (78.2 %); and there was political interference was said by 10.3 % of the respondents. The views of non-members towards the *Woreda* cooperative promotion officials and the government were positive. More than half of non-member respondents (51.7%) believed that board members and chairman of cooperatives worked for the cooperative without any benefits. The non-members are positive towards board members and chairman of cooperatives of their areas. The services of the cooperatives have to be improved to attract non-members to be members of cooperative.

6. LIMITATIONS OF THE STUDY

The study was limited to one year. The study area covered only the rural area of Toke Kutaye *Woreda*. Sample members of the agricultural cooperatives were included and sample non-member farmers living in and around the sample cooperatives were included in the study

7. SCOPE FOR FURTHER RESEARCH

The study assessed the impediments to the development of agricultural cooperatives. The study was conducted through interview schedule and focus group discussion regarding the participation of cooperative members towards cooperative development and the major problems affecting the development of agricultural cooperatives in Toke Kutaye Woreda. The fact that the study is conducted in one Woreda the findings may vary from other Woredas. Nevertheless, the study was not free from certain limitations. Non-availability and dearth of data regarding contributions of cooperatives to benefit their members was witnessed. The study was carried out covering a wide cross section of cooperatives in a particular Woreda, the inferences and conclusions, which are drawn from the study, may be generalized to the entire Oromiya Region since the Woreda under survey reflect the paradigms of cooperatives in Oromiya Region. Therefore, research in the impediments of agricultural cooperative development should be conducted at grassroots level to attract the attentions of stakeholders.

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WORKPLACE FRIENDSHIP: IT's COMPLICATED

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ABSTRACT

Friendships between/among employees are often formed at work. Findings of prior studies have suggested that workplace friendship has a variety of positive functions for both individuals and organizations. Workplace friendship facilitates increased communication, respect, securities, and trust among employees. These rewarding benefits have meaningful implications for the employees' job-related outcomes. Thus, this study will examine the direct effect of workplace friendship, attitude toward their job and its direct and indirect effect on organization and task performance.

KEYWORDS

workplace friendship, job satisfaction, organizational citizenship behavior, turnover intention, absenteeism, task performance.

INTRODUCTION

There's no doubt about it if you have good friends at work, you're more likely to enjoy your day at the office. Someone to sit with at lunch, discuss the gossip, empathize over difficult customers- these things oil the wheels of the working days. While some scholars believe that Friendship and socialization at the workplace boost productivity and staff retention, others think they can create problems for both individuals and businesses.

LITERATURE REVIEW

Joan S.M. Meyers (2005), suggests that focuses on a successful 30-year-old worker-owned company with more than 200 employees to explain how broad and deep democratic control, a large workforce, and member diversity are brought together. Drawing attention to its combination of training, infrastructure, compensation for management functions, and workplace culture, I argue that an equitable distribution of power and resources does not require hierarchical management, friendship relations, size limits, or member homogeneity. Chun-Te Lin explain that the relationship between job attributes, job position, and workplace friendship. This paper also attempts to expand the ontology of workplace friendship. Premilla D'Cruz, Ernesto Noronha,says that, The study findings help in developing more effective bystander intervention training programmes, apart from advocating the engagement of HRM as a truly unitarist ideology, the development of effective employee redressal mechanisms and the relevance of pluralist approaches and collectivisation endeavours.

Dorothy Markiewicz, Irene Devine, Dana Kausilas, suggest that Interpersonal networks and quality of women and men's close work friendships in three work settings were investigated to assess potential impact of gender socialization and organizational structure factors on patterns of interaction within same-sex and opposite-sex work friendships, and to examine whether friendship quality would predict salary and job satisfaction and if this would differ as a function of the sex of the employee or the friend. David Biggs, Lisa Matthewman, Claire Fultz, (2012) explains to understand, from an individual manager and employee perspective in the UK and USA, what personal experience individuals had on workplace romance and what this meant to them personally and in terms of company policy. Misbah Nasir, Ambreen Bashir,suggestsThe exact reasons for deviant behaviour in public sector organizations in Pakistan were not identified, thus solutions could not be formulated. This research pin points two major factors due to which deviation at work takes place. This paper is of paramount significance for managers experiencing employee deviance at work in government organizations of Pakistan.

SOCIALIZING HELPS COLLABORATION

One thing that's not in doubt is the value of employee engagement and collaboration. By helping people get to know each other, you help them work together. Another thing that's not in doubt is that younger workers expect to have a good time at work. The millennial generation wants to be friends with their co-workers and many older workers want a sociable workplace too. Good relationship with co-workers was the top reason to stay in your job in a survey by the Australian Institute of Management- more popular than job satisfaction.

DOES FRIENDSHIP CREATE CONFLICT?

So are workplace friendships a good thing? Well, it's not so simple. Other researchers point to their possible ill-effects: people being distracted from work due to socializing; breach of confidentiality; blurring of boundaries between friendship and work roles; favoritism; clash of roles. But actually, many of those dangers are more a result of poor management cultures than friendship.

OBJECTIVES OF THE STUDY

1. To find out whether workplace friendship is really complicated.
2. To find out if it exists then up to which age limit it founds most.
3. To find out whether it effects the performance of employee.
4. To find out whether It is beneficial for the reputation of the organization.

RESEARCH METHODOLOGY

I. RESEARCH DESIGN

The research design is exploratory in nature. The study is focused in Delhi NCR region

II. SAMPLING

The method of sampling is intercept sampling and the size of sample is 100.

The data have been collected from 100 employees of different offices and MNCs. The area of sampling is Delhi and NCR.

III. METHODOLOGY

The statistical tool used for analyzing the tabulated data is SPSS 20. Anova factor analysis is performed to know the significant impact of workplace friendship. The questionnaire was duly filled by the employees of different organizations. The questionnaire was made on likert scale and seven factors have been analyzed.

IV. HYPOTHESIS CONSIDERED

Ho :age has significant impact on workplace friendship

H1 : age has no significant impact on workplace friendship

1Ho : occupation/nature of work is the base of workplace friendship

1H1: occupation/ nature of work is not the base of workplace friendship.

DATA ANALYSIS

Class	Sum of squares	Df	Mean squares	F	Sig.
Q15					
Between groups	.001	2	.001	.000	1.000
Within groups	128.559	97	1.325		
Total	128.560	99			
Q17					
Between groups	2.878	2	1.439	1.742	.181
Within groups	80.112	97	.826		
Total	82.990	99			

RESULTS

The analysis shows that age has significant relation with workplace friendship in India. Further occupation has no significant relation or it doesn't work as the base of friendship. Organizations need to work on their working pattern and somehow it works. It's too natural to have discussion , problem-solution on workplace. One needs to work on their mentality.

FINDINGS

- It was observed that the age has a significant relation with the workplace friendship.
- It was again found that the occupation was important, for friendship it generally found that two people of same profession will easily be friends. So base of workplace friendship is no doubtly be the same nature of work.
- Performance of the employees will be depend upon the workplace friendship, it works positive when output was more.
- Employee turnover will also be depending upon the extent of friendship.
- Also absenteeism is an unavoidable constraint.
- Somehow it plays a major role on the reputation or goodwill of the organization.
- It helps in socialization and it always works positive.
- Employees feel motivated and boosted if they found themselves emotional secure.
- For organization's point of view, if socializing and friendships were more than they will criticize organizations policies and go against by forming their groups mutually.

CONCLUSION

Friendships between/among employees are often formed at work. Findings of prior studies have suggested that workplace friendship has a variety of positive functions for both individuals and organizations. Workplace friendship facilitates increased communication, respect, securities, and trust among employees. These rewarding benefits have meaningful implications for the employees' job-related outcomes. Thus, this study will examine the direct effect of workplace friendship, attitude toward their job and its direct and indirect effect on organization and task performance.

LIMITATIONS

The sample size is restricted to Delhi and NCR only. Generally, employees don't like to share this information. Authenticity is again an issue whether they share the correct information or the chances of manipulation are definitely there.

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LIGHT ENGINEERING UNITS IN NORTH MALABAR, KERALA, AND EMPLOYMENT GENERATION

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ABSTRACT

Micro and Small scale industry is widely recognized as a powerful instrument for socio economic growth and balanced sectorial development. Micro and Small Enterprises have a vital role to play in Kerala's economy as the industrial climate, state of economy and population density is not suitable for the development of large scale units. Factors such as scarcity of capital, abundance of labour, lack of necessary infrastructure, existence of regional and social disparities in development etc give the SMEs an edge over large scale enterprises in the state. The changing demographic profile of the Indian consumer, viz. increasing income levels and greater propensity to spend, lifestyle changes like nuclear families and working women, exposure to global trends etc are generating opportunities for growth of light engineering industries. Being labour intensive, the light engineering sector generates a lot of employment opportunities, especially where there is an abundant supply of skilled and semi-skilled labour. Micro and small enterprises can check the large scale migration of population to the urban areas which is already overcrowded and congested. In Kerala,engineering industries occupy a prominent status. But industries in the light engineering sector, especially spares and sub assemblies needed for the automobiles, machinery and construction sectors have not prospered in Kerala. Likewise, lots of building materials and utensils for the household are coming from Maharashtra, Gujarat, Punjab, Haryana and the neighboring states of kerala. There must be some bottlenecks for such industries not concentrated in Kerala. Hence an attempt is made to analyze the employment generation capacity of the units, economics of light engineering units in terms of cost, price and profit, the problems faced by this predominant sector in the economic arena.

JEL CODE
L6 - Industry Studies: Manufacturing: L60 - General

KEYWORDS
employment generation, labour intensive, light engineering, micro enterprises, sustained growth.

INTRODUCTION

Micro and Small scale industry is widely recognized as a powerful instrument for socio economic growth and balanced sectorial development. Similarly, micro and small industries occupy an important place in Indian economy. These industries are contributing half of the total industrial production in India and provide gainful economic activity to more than five times the number of people employed in the large and medium sized industries in the country.[1] It provides employment to nearly 60 million people and contributes over 45 percentage of the total manufactured output, 95 percentage of industrial units and 40 percentage of our export earnings.[2]

Agriculture, being a seasonal occupation, can't provide full time employment to the rising population of India throughout the year. Excessive pressure of population on agriculture has given rise to the problem of under employment and disguised unemployment. It is believed that micro and small enterprises can check the large scale migration of population to the urban areas which is already overcrowded and congested. Moreover, the export potential of small scale sector promises to improve the balance of payment position of the country. Planned industrial decentralization, if done, will result in balanced regional development of the country.

Although industrial development holds the key to the economic progress, Kerala has been quite slow considering the potentialities as well as requirements of the state. Micro and Small Enterprises have a vital role to play in Kerala's economy as the industrial climate, state of economy and population density is not suitable for the development of large scale units. Factors such as scarcity of capital, abundance of labour, lack of necessary infrastructure, existence of regional and social disparities in development etc give the SMEs an edge over large scale enterprises in the state. Industrialization helps to create a positive change in the society by giving employment to the young and educated people especially in the rural areas as most of the engineering units are located in such places. The MSME sector is reckoned as the backbone of the Indian economy as it contributes significantly to the GDP growth of the country. The current contribution of MSME sector to GDP is 8 %. In India small and medium enterprises constitute 95 percentage of the total industrial units, manufacturing over 6000 products ranging from handloom sarees, carpets and soaps to pickles, papads and machine parts for large industries. They employ 80 percentage of the total labour force contributing around 40 percentage of the total manufactured output[3]

IMPORTANCE OF LIGHT ENGINEERING INDUSTRY

The presence of well-developed and sound light engineering sector is the basis of almost all productive and business activities in the country. Being labour intensive, the light engineering sector generates a lot of employment opportunities in the economy, especially in the areas where there is an abundant supply of skilled and semi-skilled labour. Light engineering is an important sub-sector of the manufacturing sector. It provides critical support to industrial, agricultural and other sectors of the economy by manufacturing a wide range of spare parts, casting, molds and dies, oil & gas pipeline fittings, light machinery, etc and by providing repair services. Undoubtedly, light engineering industry supports the very basic requirements of industrialization and plays a key role in keeping other industries running.

To boost the smooth functioning of large scale units, MSMEs will have its own contribution by way of supplying key parts, sub assemblies, spares etc. MSMEs benefit by way of getting continuous orders from large units and large units get steady supply from MSMEs situated in its periphery. The changing demographic profile of the Indian consumer, viz. increasing income levels and greater propensity to spend, lifestyle changes like nuclear families and working women, exposure to global trends etc are generating opportunities for growth of light engineering industries. These changes have been driving consumption in end-user sectors such as consumer durables, building accessories like housing grills, gates, shutters, locks, household utensils and kitchenware. Keralites are health conscious and there is great demand for home exercise equipments as well. Construction industry is a supply constrained industry and will have sustained growth of over 20 percentage per annum for the next 20 years as per capita income is increasing and more than 400 million Indians shall go for own dwelling, office etc. Thus increase in construction activity will show sustained growth of light engineering industry. In Kerala alone, the annual demand for the structural products are 1.25 lakhs tones and Kannur district's annual demand for the finished goods is up to 0.4 lakh tones per annum.[4]

OBJECTIVES OF THE STUDY

1. To analyze the economics of light engineering units operating in North Malabar in terms of cost, price and profit.
2. To study the problems faced by the light engineering entrepreneurs in North Malabar
3. Employment generation of light engineering units in North Malabar area.
4. To make suggestions for further growth of light engineering units in North Malabar.

RESEARCH METHODOLOGY

This is an explorative research based on both primary and secondary data for a period of 10 years from 2000 to 2009 in 370 light engineering units of North Malabar. Primary data are collected from the entrepreneurs. A structured questionnaire is used for collecting data from the entrepreneurs. Secondary data are collected from journals and websites. Percentage analysis is the mathematical tool adopted to process the collected data.

POPULATION AND SAMPLE SIZE

The registered light engineering units in micro/small-scale sector in Kerala approximately numbers to 18,114 in 2007. Of this, around 3,310 are in the four districts of North Malabar Considering 75 percentage as the survival rate, 370 units are identified for the study on a multi-stage random sampling basis.

SCOPE OF THE STUDY

Of the different micro and small scale enterprises functioning throughout Kerala, engineering units occupy major position. In all the fourteen districts of the state, engineering industries occupy a prominent status. But industries in the light engineering sector, especially spares and sub assemblies needed for the automobiles, machinery and construction sectors have not prospered in Kerala. Likewise, lots of building materials and utensils for the household are coming from the neighboring states and other industrially developed stated like Maharashtra, Gujarat, Punjab, Haryana etc. There must be some bottlenecks for such industries not concentrated in Kerala. Hence an attempt is made to examine the working of light engineering units, the problems they face and to assess the prospects of this predominant sector in the economic arena.

OPERATIONAL DEFINITIONS

Micro enterprises mean enterprises where investment in Plant and Machinery doesn't exceed 25 lakh rupees. Small enterprises refers to enterprises where investment in Plant and Machinery is more than 25 lakhs but doesn't exceed 5 crore rupees.

LIGHT ENGINEERING

For the purpose of the study light engineering is defined as "micro and small units such as machine shops, fabricating shop, assembly shop, forging and casting shop and such other manufacturing units using metals and also include engineering work shops undertaking repairing and servicing of automobiles, pump sets, generator , machineries, tools and equipments"

ANALYSIS OF DATA

In order to understand the specific features and economic performance of light engineering units, data regarding costs and revenues of the sample units are analyzed. The economics of light engineering industry is analyzed by studying the material cost, labour cost, overheads, sales and profitability of the units. It is a fact that availability and cost structure of material and manpower affects production and the market for the product affects sales and thus the profitability of the concern. By studying the sources of raw material, availability of raw material is analyzed.

COST STRUCTURE AND PROFITABILITY

The prime objective of any economic activity is to earn profit to ensure its continuity. Growth of any type of economic activity is very much dependent on surplus/profit from the venture. Costing is an important tool in controlling the activities of an organization. In order to fix the price of a product or service of a firm, it is necessary to find out how much it costs for the manufacturer or service provider.

No scientific approach is seen followed by majority of the units surveyed. The general practice found in most of the micro units is to fix a price, very close to the market leaders' price.

MANPOWER IN LIGHT ENGINEERING UNITS

It is an established fact that the employment generating capacity of micro and small enterprises is higher when compared to medium and large enterprises. Both skilled and semi/unskilled labour are engaged in light engineering units. Availability of labour is the deciding factors in automobile repairing and servicing units and engine works, as the labour proportion is the highest in both cases. In Machines & Engineering products, Steel furniture and Structural fabrication, material is the major component but availability of material is not a serious problem. So here also, labour availability is the deciding factor.

MARKETING AND SALES

Products or services marketed as well as the mode of marketing varies according to the type of unit. Varieties of products and services are marketed. Availability of market is a crucial factor affecting sales and thus profit.

FINDINGS

1. Sample units include 85.67 percentage proprietorships and 14.32 percentage partnership firms.
2. Out of the sample, 210 (57%) units are manufacturing units and the remaining 160 (43%) service units.
3. Out of the sample, 57.30 percentage of the owners started their enterprise after gaining practical experience from light engineering units.
4. The average investment in machinery is highest for machines and engineering products (5.45 lakhs) followed by 3.59 lakhs for engine work, 3.56 lakhs for steel furniture, 0.86 lakh for Structural Fabrication and 0.83 lakh for automobile repairing and servicing.
5. The average amount of working capital required is highest for steel furniture (1.82 lakhs), followed by machines and engineering products (1.60 lakhs), 0.39 lakh for engine work, and 0.37 lakh for structural fabrication. Being a servicing unit, working capital required for automobile repairing and servicing is meager. It comes to 0.15 lakh only.
6. More than 97 percentage of the units get the raw materials supplied locally whether it is steel furniture/structural fabrication/engineering products.
7. For automobile servicing and repairing and engine work, material cost is comparatively less. It is between 18 and 22 percentage of total cost. But the labour charges are high in this case, which constitute 71.69 and 66.93 respectively. Proportion of material cost is the highest for steel furniture units followed by structural fabrication units. They are 77.23 and 74.52 respectively for these units. The labour cost to total cost for these units is around 15 percentage.
8. In automobile units 58.17 percentage of the workers are skilled whereas it is 63.35 percentage in engine works. Machines & engineering products, steel furniture, and structural fabrications employ skilled workers to the tune of 64.84 percentage, 53.49 percentage, and 51.60 percentage respectively. The proportion of unskilled workers is between 35 and 48 percentage.
9. The average rate of profit earned by the micro and small light engineering units in Kozhikode and Kannur districts increased approximately from 25 percentage in the year 2000 to 34 percentage 2009. It increased from 26 percentage to 32 percentage in Waynad district and from 24 to 32 percentage in Kasargod district. Rate of profit showed an upward trend for all the years in all the districts.
10. The average rate of profit earned by the structural fabrication and automobile repairing and servicing, increased approximately from 25 percentage in the year 2000 to 34 percentage in 2009. It increased from 25 percentage to 32 percentage in steel furniture, 27 to 33 percentage in machines and engineering products and from 24 to 32 percentage in engine work units.
11. On an average, 15.68 percentage of the workers are from other states. Local employment is more in automobile repairing and servicing units (89%) In units producing steel furniture, machines & engineering products 22 percentage of the workers are from other states like Karnataka, Tamil Nadu, Bihar, Odisha, Bengal etc.
12. Sample units taken for the study in total generates employment to 1876 persons with an average or 5 persons per unit. On an average, 5 persons are employed in an automobile and structural fabrication units, 4 persons in engine works as well as units producing machines and engineering products and 7 persons in furniture units
13. Large units which employed about 20 persons per unit in 1990s presently work with only 5 or 6 persons. To meet the demands of customers, Automobile workshops and structural fabrications hire workers at a higher rate of wages and the additional cost of labour is passed on to the consumers. The purchasing power of new generation consumers is comparatively high and they are ready to pay more for quality work and speedy delivery.

14. For automobile repairing and servicing, there is no competition at all from outside the state as it is concerned with the repair of vehicles; customers usually depend on the nearest or reliable workshop for getting the vehicles repaired. Competition for machines & engineering products is comparatively high among the units surveyed - 23 percentage of the units face competition from other states.
15. To employ one person in machine and engineering products, an investment of ₹1.7 lakhs is required. The investment required for employing one person in steel furniture unit is only ₹ 0 .77 lakh. Engine work requires an investment of ₹ 0.99 lakh, to give employment to one person. For structural fabrication and automobile repairing and servicing units, lower investment, both in machinery and working capital is required and so the investment per employee comes to ₹ 0.25 lakh and ₹ 0.20 lakh respectively for these units.
16. Presently, there is not much problem to find market for the products or services. Availability of raw material is not a problem for the enterprises. Frequent hike in the cost of raw material is a problem.
17. Labour availability, both skilled as well as unskilled is a crucial problem for almost all the enterprises. So the entrepreneurs cannot take advantage of the increasing demand for the product to harvest greater amount of profit.
18. Problem of power failure and work interruption, inability to take up work related to the new generation vehicles due to the new technology etc are the other problems.

SUGGESTIONS

The following suggestions are made which will help either in overcoming or easing the problems. While sharing the experience by entrepreneurs in the field, some opinions made by them are put in the form of suggestions.

1. Upto ₹ 5 lakhs, Project Report need not be insisted, but such details needed may be collected in the application form itself to evaluate the project.
2. Single window and Green channel committee is to be made more effective. Industries Department should, as a policy, approve proposals through "single window clearance" for starting new micro enterprises, to avoid delay in starting the units which will avoid overrun in cost and time which is a major problem for Micro and Small Enterprises.
3. Modern techniques should be adopted which will reduce the physical strain. This can be done through consortia by pooling the resources.
4. Kerala is a state of educated people. So, people crave for blue collar/white collar jobs. If workers are given such working premises and system, we can retain those who are leaving for abroad in search of job.
5. There must be sufficient motivation from the side of the Industries Department to attract entrepreneurs.
6. Instead of giving subsidy to the units it will be more effective if finance is made available at lower rates. The reason is that some entrepreneurs start the organization and avail the subsidy and after that they either sell or close down the unit. What is to be done is that the govt. should provide or improve necessary infrastructure, and motivation to boost the growth of industries.

CONCLUSION

Light engineering industry has an important place in the industrial scenario of Kerala. Most of the industries in light engineering sector are working on demand created out of the growth of civil construction sector and also due to the rising number of cars and other automobiles sold out in the state. In reality, the percentage of industrial units which are working as production units is very less. The future of the light engineering units mainly depends upon the purchasing power of the people of the state who spend in civil construction as well as in owning vehicles.

So long as the new generation concentrates on acquiring better higher education, they will continue to get good jobs and good earnings. Under this background, spending on housing and other civil construction along with investments in vehicles will continue and this will ensure good market for all the sections of light engineering units.

Again, large number of technically qualified youth who are passing out can think of developing new products including households and kitchen equipments. With the increase in the number of working women in Kerala, there is rising scope for developing equipments and products which will reduce the burden of the working women. Products which have either forward or backward linkage should be developed by keeping tie up with manufacturers of industrial machineries and automobiles. Entrepreneurs can think of production of components for automobiles and other equipments which do not involve high technology.

Light engineering units in North Malabar region of Kerala state play an important role in providing rural employment. As per the study, an investment of Rs. 75,000 (approximate) will give employment to one person. Light engineering entrepreneurs have been able to earn profits which raised their standard of living and they have moved up in the social hierarchy. Presently, there is not much problem of market for the products or services. For products like steel furniture and engineering products, there exists certain amount of competition from other states. Labour availability is a crucial problem for almost all the enterprises.

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TABLES

TABLE 1: PRODUCTION COST FOR THE YEAR 2010 (₹ In lakhs)

Nature of Operation	Material Cost	Labour Cost	Overheads	Total cost	Average Cost
Automobile Repairing and Servicing	95.34 18.13%	377.00 71.69%	53.54 10.18%	525.88 100%	4.61
Engine Work	49.83 21.36%	156.19 66.93%	27.33 11.71%	233.35 100%	5.07
Machines & Engineering products	207.97 53.84%	147.29 38.13%	31.02 8.03%	386.28 100%	17.56
Steel Furniture	2546.86 77.23%	459.12 15.10%	233.66 7.67%	3239.64 100%	47.49
Structural Fabrications	2711.08 74.52%	536.93 14.75%	390.40 10.73%	3638.41 100%	29.34

Source: Survey data

TABLE 2:

Nature of operation	Company Depot	Percentage	Local market	Percentage	Total
Automobile Repairing and Servicing	0	0.00	114	100.00	114
Engine Work	1	2.17	45	97.83	46
Machines and Engineering Products	2	9.09	20	90.91	22
Steel Furniture	3	4.69	61	95.31	64
Structural Fabrication	2	1.61	122	98.39	124
Total	8	2.16	362	97.84	370

Source: Survey data

TABLE 3: AVAILABILITY OF REQUIRED MANPOWER

Nature of Operation	Required Manpower Available Locally		Total
	Yes	No	
Automobile Repairing and Servicing	102 89.47%	12 10.53%	114 100%
Engine Work	38 82.61%	08 17.39%	46 100%
Machines & Engineering Products	14 63.64%	08 36.36%	22 100%
Steel Furniture	50 78.13%	14 21.87%	64 100%
Structural Fabrications	108 87.10%	16 12.90%	124 100%
Total	312 84.32%	58 15.68%	370 100%

Source: Survey data

Pearson Chi-Square: 12.094,df=4,p=.017

TABLE 4: THE AREA OF AVAILABILITY OF MANPOWER

Nature of Operation	Area of Availability of Manpower				Total
	Tamil Nadu	Karnataka	Other States	Locally available	
Automobile Repairing and Servicing	0 0%	8 7.02%	4 3.51%	102 89.47%	114 100%
Engine Work	2 4.35%	5 10.87%	1 2.17%	38 82.61%	46 100%
Machines & Engineering Products	4 18.18%	4 18.18%	0 0%	14 63.64%	22 100%
Steel Furniture	6 9.38%	4 6.25%	4 6.25%	50 78.12%	64 100%
Structural Fabrications	3 2.42%	9 7.26%	4 3.22%	108 87.10%	124 100%
Total	15 4.06%	30 8.11%	13 3.51%	312 84.32%	370 100%

Source: Survey data

TABLE 5: LEVEL OF COMPETITION FROM IMPORTED PRODUCTS AND PRODUCTS FROM OUTSIDE THE STATE

Nature of operation	Whether Competition Exists for the Product		Total
	Yes	No	
Automobile Repairing and Servicing	0 0%	114 100%	114 100%
Engine Work	04 8.70%	42 91.30%	46 100%
Machines & Engineering Products	05 22.73%	17 77.27%	22 100%
Steel Furniture	07 10.94%	57 89.06%	64 100%
Structural Fabrications	05 4.03%	119 95.97%	124 100%
Total	21 5.68%	349 94.32%	370 100%

Source: Survey data

TABLE 6: MARKETING PROBLEMS

Nature of operation	Whether Competition Exists for the Product		Total
	Yes	No	
Automobile Repairing and Servicing	07 6.14%	107 93.86%	114 100%
Engine Work	03 6.52%	43 93.48%	46 100%
Machines & Engineering Products	03 13.64%	19 86.36%	22 100%
Steel Furniture	09 14.06%	55 85.94%	64 100%
Structural Fabrications	09 7.26%	115 92.74%	124 100%
Total	31 8.38%	339 91.62%	370 100%

Source: Survey data

Pearson Chi-Square: 4.639,df=4,p=.326

TABLE 7: AVERAGE TURNOVER – BASED ON NATURE OF OPERATION (₹ in lakhs)

Year	Automobile Repairing and Servicing	Engine Work	Machines & Engineering Products	Steel Furniture	Structural Fabrications
2000	2.79	3.23	10.04	31.50	18.82
2001	2.84	3.87	10.85	31.56	18.08
2002	2.91	3.87	11.46	31.90	17.71
2003	3.63	4.60	16.63	46.24	31.79
2004	3.77	5.12	19.45	50.63	35.01
2005	4.81	5.73	20.23	52.60	35.43
2006	5.12	5.96	21.12	53.47	35.24
2007	5.58	6.64	22.65	57.22	38.11
2008	6.12	7.23	26.02	67.93	46.02
2009	6.67	8.04	29.75	75.76	51.11
CAGR	**9.11**	**9.56**	**11.47**	**9.17**	**10.51**

Source: Survey data

TABLE 8: RATE OF PROFIT OVER 10 YEARS (DISTRICT WISE)

Districts	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Kozhikode	25.00	26.68	27.97	28.76	29.24	30.58	32.39	33.23	32.39	33.64
Wayanad	26.21	28.24	29.13	28.99	29.17	29.79	31.77	32.74	31.37	32.23
Kannur	25.20	27.58	27.98	28.96	29.22	30.29	32.32	33.26	32.34	33.74
Kasaragod	24.26	26.08	27.42	28.42	28.67	29.26	31.13	32.56	31.13	31.92

Source: Survey data

TABLE 9: RATE OF PROFIT OVER 10 YEARS (ON NATURE OF OPERATION)

Nature of operation	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Structural Fabrication	25.08	26.82	28.07	28.84	29.28	30.74	32.53	33.37	32.43	33.70
Automobile repairing and servicing	25.18	27.57	28.10	29.00	29.18	30.34	32.32	33.32	32.08	33.50
Steel Furniture	25.29	27.17	28.23	28.55	28.97	29.56	31.57	32.61	31.55	32.48
Engine work	23.82	25.52	27.06	27.99	28.49	29.16	31.23	32.40	31.58	31.77
Machines and Engineering products	26.55	28.20	28.75	29.56	29.50	29.33	30.94	32.36	31.20	32.89

Source : Survey data

TABLE 10: PROBLEM RANKING

Problem	Rank
Labour shortage	I
Finance	II
Power Quality	III
Technology change	IV
Raw material availability	V
Waste disposal	VI
Marketing	VII
Health problems	VIII

DESCRIPTIVE STATISTICS

Problem Factor	N	Mean	Std. Deviation	Minimum	Maximum
Labour	370	1.3892	.99587	1.00	4.00
Finance	370	2.5135	1.48199	1.00	8.00
Power	370	3.3270	1.50287	1.00	8.00
Technology change	370	4.5486	1.96419	2.00	8.00
Waste disposal	370	5.7216	1.54633	2.00	8.00
Raw material	370	5.5595	1.43815	3.00	8.00
Health Problems	370	6.7703	.89786	4.00	8.00
Marketing	370	6.1730	1.37824	5.00	8.00

TABLE 11: EMPLOYMENT IN SAMPLE UNITS DURING 2010

Nature of Operation	Skilled (No.)	Semi/Un skilled (No.)	Total Employed (No.)	Employment per Unit (Approximate No.)
Automobile Repairing and Servicing	331	238	569	5
Engine Work	121	70	191	4
Machines & Engineering Products	59	32	91	4
Steel Furniture	230	200	430	7
Structural Fabrications	307	288	595	5
Total	1048	828	1876	5

Source: Survey data

TABLE 12: AVERAGE INVESTMENT IN SAMPLE UNITS

Nature of Operation	Average Investment in Machinery (₹)	Average Working Capital (₹)	Average Total investment per unit (₹)	Employment per Unit (Approximate No.)	Investment per Employee (Approximate amount)
Automobile Repairing and Servicing	83,350.88	15463.25	98,814.13	5	19,763
Engine Work	3,58,695.65	38,586.96	3,97,282.61	4	99,320
Machines & Engineering Products	5,44,772.70	1,59,545.50	7,04,318.20	4	1,76,080
Steel Furniture	3,55,703.10	1,81,718.80	5,37,421.90	7	76,775
Structural Fabrications	86,104.84	37,258.06	1,23,362.90	5	24,673
Total	**14,28,627.00**	**4,32,572.57**	**18,61,199.57**	**25**	**74,448**

Source: Survey data

PUBLIC Vs. PRIVATE INSURANCE PLAYERS IN INDIA

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ABSTRACT

Insurance Industry is a growth- oriented industry. In India the industry has started to reveal the potential after liberalization and privatization of the sector. The insurance industry has contributed significantly in India's growth story in the recent years. The contours of insurance business have been changing across the globe and the rippling effect of the same can be observed in the Indian market as well. The potential and performance of the insurance sector is universally assessed with reference to two parameters, viz., insurance penetration and insurance density. These two are often used to determine the level of development of the insurance sector in a country

KEYWORDS
insurance players, insurance penetration, insurance density.

INTRODUCTION

The process of Globalization and Liberalization has influenced Indian Insurance Sector. The Public Sector Life Insurance Corporation and Private Sector companies have been competing with each other for providing best services and best products to the customers. Customer is kind in any market and Insurance Market is no exception. Every company is trying for innovative product to satisfy customers' needs. This paper attempt to analyse the performance of Insurance Company in Public Sector LIC and Private Companies operating in India under the provisions of IRDA, 1999.

OBJECTIVES OF THE STUDY

1. To study the performance of Public sector and Private sector insurance companies in India
2. To analyse the premium underwritten by LIC and other insurance companies in India.
3. To discuss the market share occupied by Public sector and Private sector insurance companies in India

At the end of September 2012, there are fifty-two insurance companies operating in India; of which twenty four are in the life insurance business and twenty-seven are in non-life insurance business. In addition, General Insurance Corporation (GIC) is the sole national reinsurer. The life insurance industry recorded a premium income of ₹2, 87,072 crore during 2011-12 as against ₹2, 91,639 crore in the previous financial year, registering a negative growth of 1.57 per cent. While private sector insurers posted 4.52 per cent decline (11.08 per cent growth in previous year) in their premium income, Life Insurance Corporation (LIC), the fully state owned insurance company, recorded 0.29 per cent decline (9.35 per cent growth in previous year), in its total premium underwritten. While the renewal premium accounted for 60.31 per cent (56.66 per cent in 2010-11) of the total premium received by the life insurers, first year premium contributed the remaining 39.69 per cent (43.34 per cent in 2010-11). During 2011-12, the growth in renewal premium was 4.77 per cent (6.23 per cent in 2010-11). First year premium registered a decline of 9.85 per cent in comparison to growth of 15.02 per cent during 2010-11.

In the non-life segment, the insurers underwrote gross direct premium of ₹52,876 crore in India for the year 2011-12 as against ₹42,576 crore in 2010-11, registering a growth of 24.19 per cent as against an increase of 22.98 per cent recorded in the previous year. The public sector insurers exhibited growth in 2011-12 at 21.50 per cent; as against the previous year's growth rate of 21.84 per cent. The private sector general insurers registered a growth of 28.06 per cent, which is higher than 24.67 per cent achieved during the previous year.

A). LIFE INSURERS

I). PUBLIC SECTOR

1 Life Insurance Corporation of India

II). PRIVATE SECTOR

1 Aegon Religare Life Insurance Co. Ltd. 2 Aviva Life Insurance Co. Ltd. 3 Bajaj Allianz Life Insurance Co. Ltd. 4 Bharti AXA Life Insurance Co. Ltd. 5 Birla Sun Life Insurance Co. Ltd. 6 Canara HSBC OBC Life Insurance Co. Ltd. 7 DLF Pramerica Life Insurance Co. Ltd. 8 Edelweiss Tokio Life Insurance Co. Ltd. 9 Future Generali Life Insurance Co. Ltd. 10 HDFC Standard Life Insurance Co. Ltd. 11 ICICI Prudential Life Insurance Co. Ltd. 12 IDBI Federal Life Insurance Co. Ltd. 13 ING Vysya Life Insurance Co. Ltd. 14 IndiaFirst Life Insurance Co. Ltd. 15 Kotak Mahindra Old Mutual Life Insurance Co. Ltd. 16 Max Life Insurance Co. Ltd. 17 MetLife India Insurance Co. Ltd. 18 Reliance Life Insurance Co. Ltd. 19 Sahara India Life Insurance Co. Ltd. 20 SBI Life Insurance Co. Ltd. 21 Shriram Life Insurance Co. Ltd. 22 Star Union Dai-ichi Life Insurance Co. Ltd. 23 TATA AIA Life Insurance Co. Ltd.

B).NON-LIFE INSURERS

1 National Insurance Co. Ltd. 2 New India Assurance Co. Ltd 3 Oriental Insurance Co. Ltd 4 United India Insurance Co. Ltd 5 HDFC ERGO General Insurance Co. Ltd.

SPECIALISED INSURERS

5 Agriculture Insurance Co. Ltd. 6 Export Credit Guarantee Corporation Ltd

PRIVATE SECTOR

1 Bajaj Allianz General Insurance Co. Ltd. 2 Bharti AXA General Insurance Co. Ltd. 3 Cholamandalam MS General Insurance Co. Ltd 4 Future Generali India Insurance Co. Ltd. 5 HDFC ERGO General Insurance Co. Ltd. 6 ICICI Lombard General Insurance Co. Ltd. 7 IFFCO Tokio General Insurance Co. Ltd. 6 Export Credit Guarantee Corporation Ltd. 8 Liberty Videocon General Insurance Co. Ltd. 9 L & T General Insurance Co. Ltd. 10 Magma HDI General Insurance Co. Ltd. 11 Raheja QBE General Insurance Co. Ltd. 12 Reliance General Insurance Co. Ltd. 13 Royal Sundaram Alliance Insurance Co. Ltd. 14 SBI General Insurance Co. Ltd. 15 Shriram General Insurance Co. Ltd. 16 TATA AIG General Insurance Co. Ltd. 17 Universal Sompo General Insurance Co. Ltd.

STANDALONE HEALTH INSURERS

18 Apollo Munich Health Insurance Co. Ltd. 19 Max Bupa Health Insurance Co. Ltd. 20 Religare Health Insurance Co. Ltd. 21 Star Health and Allied Insurance Co. Ltd.

PENETRATION AND DENSITY

The potential and performance of the insurance sector is universally assessed with reference to two parameters, viz., insurance penetration and insurance density. These two are often used to determine the level of development of the insurance sector in a country. Insurance penetration is defined as the ratio of premium underwritten in a given year to the Gross Domestic Product (GDP). The insurance penetration in India, which surged consistently till 2009-10, has slipped since 2010-11 on account of slowdown in life insurance premium as compared to the growth rate of the Indian economy. Life insurance penetration had consistently gone up from 2.15 per cent in 2001 to 4.60 in 2009, before slipping to 4.40 per centin 2010 and further slipping to 3.40 per cent in 2011. However, penetration of the non-life insurance sector in the country has remained near constant in the range of 0.55-0.75 per cent over the last 10 years (0.71 per cent in 2010 and 0.70 in 2011).

Insurance density is defi ned as the ratio of premium underwritten in a given year to the total population (measured in USD for convenience of comparison). India has reported consistent increase in insurance density every year since the sector was opened up for private competition in the year 2000. However, for the fi rst time in 2011, there was a fall in insurance density. The life insurance density in India has gone up from USD 9.1 in 2001 to USD 49.0 in 2011 though it reached the peak of USD 55.7 in 2010. The insurance density of non-life sector reached the peak of USD 10.0 in 2011 from its level of USD 2.4 in 2001.

MICRO INSURANCE

In an effort to ensure a balanced and speedy expansion of insurance coverage in the country, the Authority has put in place the regulatory framework laying down the obligations of insurers to the rural and social sectors. These regulations impose obligations on insurers towards the rural population - to sell a specified percentage of policies and underwrite specified percentage of gross premium underwritten for life and non-life insurance companies respectively; and cover a specifi ed number of lives/assets belonging to people below poverty line or those pursuing certain traditional occupations.These obligations have been linked to the number of years of having been in operations of the respective insurer. The Government of India had set up a consulting group in 2003 to examine the existing insurance schemes for the rural poor; and on the basis of the group's recommendations, the Authority issued IRDA (Micro insurance) Regulations, 2005.

Since notification of the Micro Insurance Regulations in November, 2005, the Authority has been monitoring the progress of micro insurance business and examining the possibilities of offering a facilitative approach to the industry so that the micro insurance business could take off as a class of business to further extend insurance penetration amongst various sections of the society. Towards this direction, the Authority permitted Non- Governmental Organizations (NGOs) registered as Non Profit Companies, including NGOs registered under Section 25 of the Companies Act, 1956 to act as micro-insurance agents vide its circular dated 13th March, 2008, in addition to NGOs registered as societies that were already permitted to act as agents under the Micro Insurance Regulations.

With a view to giving a further fillip to micro insurance business, the Authority has reviewed comprehensively the extant regulatory architecture of the micro insurance business and issued an exposure draft on 26th July, 2012 proposing modifications to the existing IRDA (Micro Insurance) Regulations, 2005. The intent of the review is to create an encouraging regulatory environment for promoting micro insurance business in the country. Towards this end, the existing standalone delivery channel is proposed to be strengthened; encourage diversity in the products offered by insurance companies under this stream; customize products to meet the needs of the targeted sections of society; expand the coverage to include micro, small and medium enterprises; and strengthen regulatory oversight.

In the life insurance business of the micro insurance, the Individual New Business premium in the year stood at ₹115.68 crore for 46.20 lakh new policies, the group business premium amounted to ₹109.82 crore covering 1.02 crore of lives. LIC contributed most of the business procured in this portfolio by garnering ₹106.03 crore of individual premium from 38.26 lakh lives and ₹98.32 crore of group premium underwriting 94.44 lakh lives.

REVISION IN MOTOR THIRD PARTY PREMIUM RATES

Till the end of year 2006, the general insurance business in India was tariff-based which was being administered by the erstwhile Tariff Advisory Committee (TAC). The TAC vide its circular no TAC/7/06 dated 4th December 2006 decided that the rates, terms, conditions & regulations applicable to fire, engineering, motor, workmen's compensation and other classes of business which were under tariffs would be withdrawn from 1st January 2007. Subsequently, by virtue of power vested in the Authority under Section 14(2)(i) of the IRDA Act,1999, the Authority notified that the Tariff general regulations (other than those relating to rating), terms, conditions, clauses, warranties, policy and endorsement wordings applicable to respective policies would continue to be followed.

With effect from 1st January, 2007, tariffs were withdrawn from the non-life insurance market. However, keeping in mind the mandatory nature of the Third Party Motor Insurance, the Authority decided to regulate the premium rates in this segment with effect from 1st January, 2007 vide circular no.034/IRDA/De-tariff/Dec-06 dated 4th December, 2006 which was later modifi ed vide circular dated 23rd January, 2007. The premium rates for motor TP were revised for the fi rst time since 2002 after a detailed analysis of Motor TP rates and discussions with various apex associations of transporters. Further, to redress grievances of non-availability of Motor Third Party Insurance, especially for commercial vehicles, the Authority in consultation with the Consultative Committee constituted under Section 110G of the Insurance Act, 1938 issued direction under Section 34 of the Insurance Act, 1938 vide circular no.035/Motor-TP/Dec-06 dated 4th December, 2006 and constituted the Indian Motor Third Party Insurance Pool (IMTPIP).

The motor TP premium rates which were set effective from 1st January, 2007 were not revised by the Authority till the end of year 2010-11. Due to the huge operating losses in this segment over the years, all non-life insurance companies through the General Insurance Council approached the Authority for upward revision of premium rates for motor third party insurance cover. After several rounds of deliberations with all stakeholders, and considerable actuarial analysis, the IRDA issued an Exposure Draft in January 2011 with the proposed revised premium rates. The Authority also invited all the stakeholders to provide their comments on the draft proposal. After receiving responses, the Authority then held a series of discussions with the Transporters' Associations and Insurers. Subsequently, the Authority notified the revised premium rates for motor third party insurance cover vide notification dated 15th April, 2011. The revised rates came into operation with effect from 25th April, 2011. Though the insurance companies had requested for 85 per cent hike in the premium rates across all segments of vehicles, after considering the concerns/ requests/suggestions of various stakeholders, the Authority decided to hike the premium rates only to the tune of 10 per cent in respect of two wheelers and private cars; and 68.5 per cent in respect of the commercial vehicles. It was also notified that long intervals between rate revision puts an avoidable strain on policyholders as well as on the insurance companies and therefore the rates would be reviewed and adjusted annually in line with the formula notified by the Authority. As per the prescriptions, the revision in the premium rates has been pegged to the cost inflation index, average claim amounts, frequency and expenses involved in servicing the motor TP business.

TABLE 1: PREMIUM UNDERWRITTEN: LIFE INSURERS (Rs. in Crores)

Insurer	2010-11		2011-12	
	Regular premium		Regular premium	
LIC	36265.36	(38.50)	40194.54	(10.83)
Private sector	27679.83	(-19.84)	22040.78	(-20.37)
Total	63945.18	(5.32)	62235.32	(-2.67)
	Single premium		Single premium	
LIC	50746.99	(11.93)	41667.71	(-17.89)
Private sector	11706.01	(204.66)	10039.14	(-14.24)
Total	62453.00	(26.99)	51706.85	(-17.21)
	First year premium		First year premium	
LIC	87012.35	(21.66)	81862.25	(-5.92)
Private sector	39385.84	(2.64)	32079.92	(-18.55)
Total	126398.1	(15.02)	113942.17	(-9.85)
	Renewal premium		Renewal premium	
LIC	116461.05	(1.66)	121027.03	(3.92)
Private sector	48779.4	(18.98)	52102.91	(6.81)
Total	165240.45	(6.23)	173129.94	(4.77)
	Total premium		Total premium	
LIC	203473.40	(9.35)	202889.28	(-0.29)
Private sector	88165.24	(11.08)	84182.83	(-4.52)
Total	291638.63	(9.87)	287072.11	(-1.57)

Note: Figures in the brockets indicate the growth (in per cent) over the previous year.

On the basis of total premium income, the market share of LIC increased marginally from 69.7 per cent in 2010-11 to 70.68 per cent in 2011-12. Accordingly, the market share of private insurers has gone down marginally from 30.23 per cent in 2010-11 to 29.32 per cent in 2011-12.

TABLE 2: MARKET SHARE: LIFE INSURERS (In per cent)

Insurer	2010-11	2011-12
	Regular premium	Regular premium
LIC	56.71	64.58
Private sector	43.21	35.42
Total	100.00	100.00
	Single premium	Single premium
LIC	81.26	80.58
Private sector	18.74	19.42
Total	100.00	100.00
	First year premium	First year premium
LIC	68.84	71.85
Private sector	31.16	28.15
Total	100.00	100.00
	Renewal premium	Renewal premium
LIC	70.48	69.91
Private sector	29.52	30.09
Total	100.00	100.00
	Total premium	Total premium
LIC	69.77	70.68
Private sector	30.23	29.32
Total	100.00	100.00

The market share of private insurers in first year premium was 28.15 per cent in 2011-12 (31.16 per cent in 2010-11). The same for LIC was 71.85 per cent (68.84 per cent in 2010-11). Similarly, in renewal premium, LIC continued to have a higher share at 69.91 per cent (70.48 per cent in 2010-11) when compared to 30.09 per cent (29.52 per cent in 2010-11) share of private insurers.

TABLE 3: NEW POLICIES ISSUED: LIFE INSURERS (In lakh)

Insurer	2010-11		2011-12	
LIC	370.38	(-4.70)	357.51	(-3.47)
Private sector	111.14	(-22.61)	84.42	(-24.04)
Total	481.52	(-9.53)	441.93	(-8.22)

Note: Figures in brockets indicate growth over previous year (in per cent)

During 2011-12, life insurers issued 442 lakh new policies, out of which LIC issued 358 lakh policies (80.90 per cent of total policies issued) and the private life insurers issued 84 lakh policies (19.10 per cent).

CONCLUSIONS

The urgent response that is required from the existing public insurers is clear that they must remain competitive by doing things better and faster, and by ensuring cost effectiveness with performance. Large numbers of initiatives have been taken by these public sector companies to compete with private sector companies. But still the public sector companies need to reassess their present status after having modified their approach & philosophy in the post reform period. Today, in this liberalized world, in order to sustain them, the insurance companies have to ensure quality products at a competitive price. Companies can lower the price of the product by reducing the cost. Their survival depends upon their performance in profitability productivity, efficiency and service quality.

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IMPACT OF OPTION INTEREST AND PUT- CALL RATIO INFORMATION IN DERIVATIVES MARKET: AN EMPIRICAL STUDY OF OPTION AND FUTURE MARKET, NSE (NATIONAL STOCK EXCHANGE OF INDIA)

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ABSTRACT

Generally, increase in open interest along with increase in price leads to bullish or say upward trend and increase in open interest along with decrease in price leads to bearish trend. This research paper is attempt to study the relationship between closing price and open interest in Indian stock index future and option market. The Granger causality seeks to find out how much of each variable can be explained by other. This research isalso an attempt tofind the efficiency of theall variables as indicators of financial derivatives in predicting the trend of the market (behaviour of NIFTY index). Participants in the stock markets believe that the amount of open interest (OI) in a particular contract has significant effect on the behaviour of the price of the contract. This perception is tried to test in this present research using historical data from January 2014 to February 2014, and examined the correlation between the open interest and the price of future contract of NIFTY index. In case of option contract, the put-call ratio (PCR) is majorly used by technical analysts as an indicator to predict index trends. In thepresent research paper, the value of the put-call ratio as an indicator of future stock market trend is also put in to the consideration for testing.

KEYWORDS
derivatives, put-call ratio, open interest, NIFTY, closing price, Granger causality, indicators.

JEL CLASSIFICATION
G13, G14, G15.

INTRODUCTION

Derivatives are becoming increasingly important in world markets as a tool for risk management. Derivatives instruments can be used to minimize risk. Derivatives are used to separate risks and transfer them to parties willing to bear these risks. The kind of hedging that can be obtained by using derivatives is cheaper and more convenient than what could be obtained by using cash instruments. It is so because, when we use derivatives for hedging, actual delivery of the underlying asset is not at all essential for settlement purposes.A futures contract is an agreement between two parties to buy or sell an asset at a certain period of time in the future at a certain price. Open interest is the total number of options and/or futures contracts that are not closed or delivered on a particular day. Open interest is a calculation of the number of active trades for a particular market. In this study, we are concerned about the open interest for futures and it has been evaluated against daily index future closing prices for the NIFTY Index. It is most often used as an indication of the strength behind the market. It is a common belief that the amount of open interest in a particular contract has a bearing on the behaviour of the price of the futures contract. So it is required to put to test in this research paper by using Granger causality for change in open interest in futures and the change in the futures prices. Study of future closing indices and open interest is important to determine future price trends. Increasing open interest means that new money is flowing in the market, while declining open interest means that the market isliquidating and implies that the prevailing price trend is coming to an end. So, knowledge of open interest can prove useful in determining the moves of the market. In case of option contract, the put-call ratio (PCR) is majorly used by technical analysts as an indicator to predict index trends. In the present research paper, the value of the put-call ratio as an indicator of future stock market trend is also put in to the consideration for testing.

REVIEW OF LITERATURE

Wen and Lin (2011) in their paper titled "Does the put-call Ratio Forecast Market Returns? Evidence from an Emerging Market" found the predictability of popular market-based sentiment indicator, the put-call ratio, for future stock price movements in emerging Taiwan Future Exchange. They investigated that the non-public open-buy put-call ratiocontain information content about future stock index movement, while the predictability of publicly observed put-call ratio is statistically insignificant. Gerg and Ramesh (2010) in their paper "Relation between future price and option in stock and index future in the Indian Stock Market: An Empirical Analysis" revealed that open interest change as and when the number of open position increase or decrease in a given contract. Thus, a change in open interest will not lead to change in future price in any direction.The conclusion is that open interest is a measure of liquidity in the future contract, and not a forbearer of the price direction of the future contract.Andy and Doran (2010) in their paper "Do Option Open-Interest Changes Predict Future Equity returns?" investigated that information is first revealed in option market. Specifically, change in call and put open interest level have predictive power for future equity returns. Large increase in put open interest are followed by poor equity returns call open interest increase precede relatively strong future return, but the relationship is considerably less pronounced.Maniar and Maniyar (2008) in their paper "Impact of Option Interest Information in Derivatives Market – An Empirical Study of Stock Option Market, NSE (National Stock Exchange of India)" found that the prediction of stock price movement based on the distribution of option open interest to have reasonably good accuracy. In the sample, the open interest-based active trading strategies generated better returns as compared with the passive benchmarks.Pan and Poteshman (2004) in their research paper work on the topic "The Information of option Volume for Future Stock Price" presented strong evidence that option trading volume contain information about future stock price movement. By using data from Chicago Board Option Exchange, it was found that on a risk adjust basis, stocks with low put-call ratios outperformed stock with high put-call ratio 40 basis points on the next day and more than 1% over the next week.

Mukherjee and mishra in their research work(2004) on the topic "Impact of Open Interest and Trading Volume in Option Market on Underlying Cash Market: Empirical Evidence from Indian Equity Option Market" found that the open interest based prediction are significant in predict the spot price index in the underlying cash market in both the periods, just after the initiation of the index in the market and in the later sub-period. However, as far as the volume-based predictions are concerned, it shows some changing evidence. Though being insignificant just after the initiation, the volume-based predictors showed significant explanatory power in the later sub-period. Again, though both the predictors in the option market sub-period were significant at 1% level of significance, the trading volume showed more impact as compared to open interest in the matter of price prediction in the cash market. The value of adjusted R-square and F-statistical in two sub-period also confirmed how the option market tends to improve its power in discovering the price index in the underlying cash market.

Christos Floros (2007) examines therelation between price and open interest in Greek stockindex futures market. Study focus on the GARCHeffects and the long-run information role of openinterest. Stephen P Ferris, Hun Y Park and KwangwooPark (2002) studies by using a vector autoregressive(VAR) approach, the dynamic interactions and causalrelationships among volatility, open interest, tradingvolume and arbitrage opportunities in the S&P 500 indexfutures market is examined. It is found that increasedvolatility lowers pricing error. This implies that as market volatility increases, investors sell off their equity and futures positions with relatively larger drops in futures prices.

Srivastava (2001) in his research work on the topic "Information Content Trading Volume of Open Interest-An Empirical Study of Stock Option Market in India" found that open interest based predictors are statistically more significant than volume-based predictore in the indian context.

OBJECTIVES OF STUDY

1. The objective of the study is to find out the relationship between closing future prices and open interest. Open interest is evaluated against daily index future closing prices.
2. To study the behaviour of the NIFTY index by examining the derivative contract.
3. To analyse the efficiency of sentimental indicators of future contracts in predicting the behaviour of the NIFTY index.
4. To analyse the efficiency of sentimental indicators of option contracts in predicting the NIFTY index.
5. To formulate and suggest suitable future and option strategies for different market.

RESEARCH METHODOLOGY

DATA COLLECTION AND SAMPLE SIZE

Collected 2 months data of NIFTY. Data includes open interest, index closing price, call and put option contract price of NIFTY index. Data has been collected from National stock exchange site (http://www.nseindia. com). Open interest and closing prices for closing futures price has been taken from historical data of contract wise volume data for futures and options data available on NSE site.

STATISTICAL TOOL APPLIED

In this study Granger Causality test has been used to develop a two way relationship between closing futures prices and open interest. According to the results obtained if significance level is greater than 0.05 than null hypothesis is not rejected else alternative hypothesis is accepted.E-Views 7 software is used for the analysis purpose. To find out Karl pearson's coefficient of correlation , SPSS softeare is also used .

PERCENTAGE ANALYSIS

Percentage analysis is the method to represent raw streams of data as a percentage for better understand of collection data.

$$\text{Percentage change} = \frac{\text{New value} - \text{Old value}}{\text{old value}} \times 100$$

Percent increase and percent decrease are useful to understand change in a value over time.

$$\%\text{ of carry forward contract} = \frac{\text{Change in open interest Contract}}{\text{No. of contract Treaded(volume)}} \times 100$$

Karl Pearson's coefficient of correlation: Pearson's coefficient related the linear relationship between two variables. If the correlation coefficient is +1, then there is a perfect linear relationship , and if there is -1, then there is a perfect negative linear relationship between the variables. 0 denotes that there is no relationship between the two variables. The degrees -1, +1, and 0 are theoretical result and not generally found in normal circumstance. That means that the result cannot be more than -1,+1.

Put-Call Ratio: The put/call ratio is popular sentiment indicator based upon the trading volume and open interest of put option compared to call option. The ratio attempts to gauge the prevailing level of bullishness or bearishness in the market.

$$\textbf{PCR} = \frac{\text{Open interest of put option to No. of put Contract traded}}{\text{Open interest of call option to No. of call contract traded}}$$

EMPIRICAL ANALYSIS AND RESULT

TABLE 1: GRANGER CAUSALITY RESULT FOR NIFTY INDEX

Pairwise Granger Causality Tests
Sample: 1/01/2014 2/21/2014
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
Open_interest does not Granger Cause closing_price	37	14.9947	2.E-06
Closing_price does not Granger Cause Open_interest		30.2674	4.E-10

Table 1 presents the results from Granger Causalitytests for NIFTY. For NIFTY we do reject the nullhythothesis (that open interest does not causesfuture closing price and second null hypothesis is also rejected, that future closing price does notcauses open interest. So, we find that there is a bidirectionaleffect from open interest to future closingprice and future closing price to open interest.

So, open interest can be a indicator for predicting movement of NIFTY Index.

Equation for the calculate % change in price

$$\%\text{ change in price} = \frac{\text{current day's LTP} - \text{Previous day's LTP}}{\text{Previous day's LTP}} \times 100$$

Equation for the calculate % of carry forward contract

$$\%\text{ of carry forward contract} = \frac{\text{Change in open interest Contract}}{\text{No. of contract Treaded(volume)}} \times 100$$

RELATIONSHIP BETWEEN THE BEHAVIOUR OF NIFTY AND THE SENTIMENTAL INDICATION OF FUTURE CONTRACTS FOR THE MONTH OF JANUARY & FEBRUARY'2014

Date	LTP (Future Contract)	%Change in price	Cumulative %change in price	No. of contract	Change in open interest contracts	% of carry forward contract	cumulative % of carry forward contract	Trend
01-Jan-14	6360.65			47960	67950	1.416805671	1.416805671	
02-Jan-14	6255.8	-1.64842	-1.64842	325504	-495350	-1.5217939	-0.10498822	Bearish
03-Jan-14	6258.4	0.041561	-1.6068586	242124	-1702450	-7.03131453	-7.13630276	Bullish
06-Jan-14	6228	-0.48575	-2.0926057	171361	155450	0.907149235	-6.22915352	Bearish
07-Jan-14	6196.05	-0.51301	-2.6056115	255943	-48750	-0.1904721	-6.41962562	Bearish
08-Jan-14	6197.9	0.029858	-2.5757538	164262	-448300	-2.72917656	-9.14880218	Bullish
09-Jan-14	6193.1	-0.07745	-2.6531994	174561	-193900	-1.11078649	-10.2595887	Bearish
10-Jan-14	6180	-0.21153	-2.8647251	328325	-27350	-0.08330161	-10.3428903	Bearish
13-Jan-14	6300	1.941748	-0.9229775	243680	528050	2.166981287	-8.17590899	Bullish
14-Jan-14	6262.05	-0.60238	-1.5253585	154520	170450	1.103093451	-7.07281554	Bearish
15-Jan-14	6328	1.053169	-0.472189	257092	460050	1.789437244	-5.28337829	Bullish
16-Jan-14	6331.35	0.052939	-0.4192497	175261	821450	4.68700966	-0.59636863	Bullish
17-Jan-14	6272.2	-0.93424	-1.3534896	236858	-1041500	-4.39714935	-4.99351798	Bearish
20-Jan-14	6317.9	0.728612	-0.6248776	217355	-897200	-4.12780934	-9.12132732	Bullish
21-Jan-14	6329	0.175691	-0.4491863	147116	569150	3.868715843	-5.25261148	Bullish
22-Jan-14	6344.9	0.251225	-0.1979618	171166	-144250	-0.84274914	-6.09536062	Bullish
23-Jan-14	6360	0.237986	0.0400246	133460	-340000	-2.5475798	-8.64294042	Bullish
24-Jan-14	6277.65	-1.29481	-1.2547867	246957	-1301450	-5.26994578	-13.9128862	Bearish
27-Jan-14	6152.5	-1.99358	-3.2483671	307063	-3218500	-10.4815624	-24.3944486	Bearish
28-Jan-14	6142.15	-0.16822	-3.4165914	361532	-1850300	-5.11794253	-29.5123912	Bearish
29-Jan-14	6126.5	-0.2548	-3.6713882	192087	-2109400	-10.9814823	-40.4938735	Bearish
30-Jan-14	6074.2	-0.85367	-4.5250567	291826	-2102900	-7.20600632	-47.6998798	Bearish
03-Feb-14	6036.7	-0.61737	-5.1424219	176743	-172700	-0.97712498	-48.6770048	Bearish
04-Feb-14	6045.85	0.151573	-4.9908491	254932	195900	0.768440212	-47.9085646	Bullish
05-Feb-14	6044	-0.0306	-5.0214486	222075	136950	0.616683553	-47.291881	Bearish
06-Feb-14	6054	0.165453	-4.8559952	246439	-341250	-1.38472401	-48.676605	Bullish
07-Feb-14	6078.2	0.399736	-4.4562595	211347	-654650	-3.09751262	-51.7741177	Bullish
10-Feb-14	6060.25	-0.29532	-4.7515772	127561	41650	0.326510454	-51.4476072	Bearish
11-Feb-14	6077	0.276391	-4.475186	133083	480200	3.608274535	-47.8393327	Bullish
12-Feb-14	6093.9	0.278098	-4.1970882	169287	-387900	-2.291375	-50.1307077	Bullish
13-Feb-14	5998.65	-1.56304	-5.7601267	229304	1130150	4.928610055	-45.2020976	Bearish
14-Feb-14	6061.75	1.051903	-4.7082233	227135	-451300	-1.98692408	-47.1890217	Bullish
17-Feb-14	6098	0.598012	-4.1102112	167030	48550	0.290666347	-46.8983553	Bullish
18-Feb-14	6131.25	0.545261	-3.5649504	210962	-570550	-2.70451551	-49.6028709	Bullish
19-Feb-14	6166	0.566769	-2.9981818	123480	8450	0.068432135	-49.5344387	Bullish
20-Feb-14	6108.15	-0.93821	-3.9363914	173973	-817600	-4.69957982	-54.2340185	Bearish
21-Feb-14	6161	0.865237	-3.071154	174281	-901300	-5.17153333	-59.4055519	Bullish

From the above table, after comparing the % change in price and % of carry forward contract using the following test and prediction the trend of the market, it was found that:

price	open interest	market trend
Rising(+)	Rising(+)	market is Strong (Bullish)
Rising(+)	Falling(-)	Short Covering (Bullish)
Falling(-)	Rising(+)	Market is Weak (Bearish)
Falling(-)	Falling(-)	Profit Booking (Bearish)

If the market trend is overall bullish, cumulate the % change in price and % of carry forward contract by adding the bullish trend and subtracting the bearish trends.If the market trend is overall bearish, cumulate the % change in price by adding the bullish trend and subtracting the bearish trend. Then, cumulative the % of carry forward contract by adding the bearish trend and subtracting the bullish trend.

The karlpearson's coefficient of correlation between LTP (last traded price) and % change in open interest.

CORRELATIONS

Descriptive Statistics			
	Mean	Std. Deviation	N
LTP	6.181162E3	108.7662296	37
Open Interest	-2.716985E1	21.3023992	37

Correlations			
		LTP	Open interest
LTP	Pearson Correlation	1	.872
	Sig. (2-tailed)		.000
	N	37	37
Open interest	Pearson Correlation	.872	1
	Sig. (2-tailed)	.000	
	N	37	37

source : Above table is formed using a statistical tool SPSS

The karl Pearson's coefficient of correlation between LTP (last traded price) and % change in open interest to the no of contract traded. i.e. the cumulative % of carry forward contract is 0.87.The last traded prices (LTP) and open interest are positively correlated and there is high level of significant between them.

The following inferences are for the option contract analysis:

Change in price = current day's price – previous day's price

The change in open interest of active strike price (in-the-money,at-the-money,and out-of-the-money)of call and put option are added instead of taking the open interest of all the strike price.

The total number of contract traded for the active strike price (in-the-money, at-the-money,and out-of-the-money) of call and put option are added instead of talking the volume of all the strike price.

Total % of call carry forward contract = $\frac{\text{Change in open interest Contract}}{\text{No. of call contracts Treaded}} \times 100$

Total % of put carry forward contract = $\frac{\text{Change in open interest Contract}}{\text{No. of put contracts Treaded}} \times 100$

Cumulate the % of call and put carry forward contract.

Put Call Ratio= $\frac{\text{\% of put carry forward contract}}{\text{\% of Call carry forward contract}} \times 100$

RELATIONSHIP BETWEEN PUT-CALL RATIO (PCR) AND THE BEHAVIOUR OF NIFTY FOR THE MONTH OF JANUARY AND FEBRUARY 2014

Date	Expiry date	LTP	Change in price	Call carry forward contract(CE)	Put carry forward contract(PE)	PCR (put-call ratio)
01-Jan-14	30-Jan-14	6360.65		7.26916	-48.3871	-6.6564952
02-Jan-14	30-Jan-14	6255.8	-104.85	-4.0258	1.32275	-0.3285714
03-Jan-14	30-Jan-14	6258.4	2.60	-9.7257	-25.5144	2.62340403
06-Jan-14	30-Jan-14	6228	-30.40	-0.8174	4.16667	-5.0972222
07-Jan-14	30-Jan-14	6196.05	-31.95	-1.153	-1.7045	1.47830579
08-Jan-14	30-Jan-14	6197.9	1.85	-16.29	3.82716	-0.2349451
09-Jan-14	30-Jan-14	6193.1	-4.80	-28.307	-44.485	1.5714845
10-Jan-14	30-Jan-14	6180	-13.10	-11.899	-30.357	2.55114017
13-Jan-14	30-Jan-14	6300	120.00	-3.3278	-15.5328	4.66260246
14-Jan-14	30-Jan-14	6262.05	-37.95	-19.054	-5.1724	0.27145734
15-Jan-14	30-Jan-14	6328	65.95	-14.986	-23.926	1.59654211
16-Jan-14	30-Jan-14	6331.35	3.35	-19.427	-21.8367	1.09454474
17-Jan-14	30-Jan-14	6272.2	-59.15	-12.319	-10.333	0.83882353
20-Jan-14	30-Jan-14	6317.9	45.70	3.64583	29.118	7.98655462
21-Jan-14	30-Jan-14	6329	11.10	-11.442	-11.345	0.99148152
22-Jan-14	30-Jan-14	6344.9	15.90	-30.117	-65.3443	2.16968226
23-Jan-14	30-Jan-14	6360	15.10	-38.889	-77.3899	1.99002012
24-Jan-14	30-Jan-14	6277.65	-82.35	-24.748	-21.382	0.86396496
27-Jan-14	30-Jan-14	6152.5	-125.15	-32.612	-0.00253	0.00007771
28-Jan-14	30-Jan-14	6142.15	-10.35	-44.551	-17.182	0.38567708
29-Jan-14	30-Jan-14	6126.5	-15.65	-45.521	-46.607	1.02383877
30-Jan-14	30-Jan-14	6074.2	-52.30	-45.544	23.7154	-0.5207177
03-Feb-14	26-Feb-14	6036.7	-37.50	-10.127	30.6818	-3.0298295
04-Feb-14	26-Feb-14	6045.85	9.15	-30.699	-31.356	1.02139621
05-Feb-14	26-Feb-14	6044	-1.85	-1.5385	12.8099	-8.3264463
06-Feb-14	26-Feb-14	6054	10.00	-21.629	-15.068	0.69667319
07-Feb-14	26-Feb-14	6078.2	24.20	14.2105	-13.492	-0.9494415
10-Feb-14	26-Feb-14	6060.25	-17.95	-24.272	28.7037	-1.1825926
11-Feb-14	26-Feb-14	6077	16.75	-42.308	-25.61	0.60532151
12-Feb-14	26-Feb-14	6093.9	16.90	6.66667	31.8792	4.7818792
13-Feb-14	26-Feb-14	5998.65	-95.25	-17.647	10.5	-0.595
14-Feb-14	26-Feb-14	6061.75	63.10	0.99206	-2.49612	-2.5160976
17-Feb-14	26-Feb-14	6098	36.25	-23.913	-30.496	1.27530625
18-Feb-14	26-Feb-14	6131.25	33.25	-30.307	-40.669	1.34191922
19-Feb-14	26-Feb-14	6166	34.75	-37.558	-46.481	1.23758743
20-Feb-14	26-Feb-14	6108.15	-57.85	-43.439	-44.092	1.01502793
21-Feb-14	26-Feb-14	6161	52.85	-46.133	-188.045	4.07615336

On January 2, 2014, when the market was down by -104.85 points, the put-call ratio -0.328571429 from -6.656495205. OnJanuary 15, 2014, when the market was up by 65.95 points, the put-call ratio rose to 1.59 from 0.27.During the months of January and February, the market was down by 200 points. It indicates that the put-call ratio is a constraint indicator, i.e. when there is an decrease in price of the underlying stock, the put-call ratio also decrease, similarly there is increase in price , the put-call ratio also increase. The Karl Pearson's coefficient of correlation between LTP(last traded price) and PCR (put-call Ratio)

CORRELATIONS

DESCRIPTIVE STATISTICS			
	Mean	Std. Deviation	N
LTP	6.181162E3	108.7662296	37
put-call ratio	-1.42187001E0	7.629193059	37
CORRELATIONS			
		LTP	put-call ratio
LTP	Pearson Correlation	1	.26
	Sig. (2-tailed)		.046
	N	37	37
put-call ratio	Pearson Correlation	.26	1
	Sig. (2-tailed)	.046	
	N	37	37

FINDINGS

Study found that there is a bi-directional effect from open interest to future closing price and future closing price to open interest. During the month of January & February 2014, when the NIFTY index was down by 200 points (6360-6161), there is positive correlation between the sentimental indicators of future and option contract to the last traded price (LTP) of the underlying stock.During the month of January 1, 2014 to January 30, 2014 NIFTY index was down by 300 points and the market trend was bearish.During the month of February 3 , 2014 to February 21, 2014 NIFTY index was up by 130 points, which is show that market is up as compare to the January 1, 2014 to January 30, 2014.There is correlation between LTP(last traded price) and cumulative % change in Open Interest of future contract for the month of January and February 2014 is positive (0.872).And correlation between LTP (last traded price) and PCR (put-call ratio)of call and put contract for the month of January and February 2014 is positive(0.26).

CONCLUSION

There are many reasons that market participants pay attention to price and open interest. Open interest, or the total number of open contracts, applies primarily to futures markets. It is generally used to confirm trends for futures contracts. An increase in open interest along with an increase in price is said to confirm an upward trend, while an increase in open interest along with a decrease in price confirms a downward trend. This study found the relationship between future closing price and open interest There are many indicators which can be used while trading in the derivative market, but the widely used and most effective are open interest & put call ratio. The findings of this study have strengthened the argument that open interest and volume based predictors are significant in prediction the future movement of the underlying index. This study also concludes that the sentimental indicators of index future (open interestand price) are efficient in predicting the future trend of the underlying (NIFTY). Where the sentimental indicator of option contract (index put/call ratio) is proved to be a contrarian indicator i.e. trading more put option are supposed to be the indication of bearishness, but in the present study, it was observed that more put option are traded when the market is bullish, which means when the market is bullish, the investors always take a long position in future contract and buy a put option to hedge their position. When the market is bearish, the investors always take a short position in the future contract, and buy a call option to hedge their position. Hence, it can be concluded that trading strategies based on sentimental indicators yield good result.

SUGGESTION

Average risk taker can adopt synthetic long call strategy when the market is bullish and synthetic long put strategy when the market is bearish.Aggressive risk taker can make money even when the market doses not show any movement by adopting short straddle strategy.Awareness programs on the benefit of using sentimental indicators in predicting the behaviour of the market can be conducted for equity dealers and client at stock broking firms.In cash market the profit/loss is limited but where in F& O an investor can enjoy unlimited profits/loss.

LIMITATION

This is a study conducted within a period of 37 days. During this limited period of study, the study may not be a detailed, Full – fledged and utilitarian one in all aspects. The study does not provide any predictions or forecast of the selected scripts. This research study was confined to conceptual understanding of Derivatives market in India.

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FINANCIAL HEALTH OF HOUSING FINANCE INSTITUTIONS IN INDIA: AN EMPIRICAL EVALUATION

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ABSTRACT

Housing Finance Companies (HFCs) represent one of the major institutional groups in the formal system for housing finance in India. This study has tried to analyze the financial health of selected Housing Finance Institutions. The analysis of performance of Housing Finance Companies is made using some widely used indicators of measuring performances of finance companies, namely financial ratios. To study and examine the financial health of selected Housing finance companies Z score analysis has been used. From the analysis it can be concluded that the efficiency in management of working capital helps the sample Housing Finance Companies to maintain the good financial health and all the select Housing Finance Institutions were also in the too healthy zone during the period of study.

KEYWORDS
HFCs, Discriminant Function, Housing Finance, financial ratios, MDA.

INTRODUCTION

The changing economic environment will impose new demands on the specialized innovative measures for mobilizing resources in the competitive market as the resources from the allocated pool are being gradually phased out. Housing Finance Institutions today depend substantially on resources from the banking system, without making any major effort to diversify and broad-base the spectrum of resources raised. In this process, the financial structure of these institutions tends to get further skewed, with a dependence on wholesale resources for lending to a retail customer base. In the ultimate analysis, these institutions need to base their resources and focus on two principal markets viz. the household savings sector through the operation of innovative saving programmes including those linked to credit for housing and the capital markets, in order to raise high volume of resources through a combination of cost effective debt and equity instruments. Further, housing finance in India is at a nascent stage and the teething problems have to be sorted out to make investment in this sector more attractive. In addition to that, Indian finance and banking industry did suffer significantly during past two years; it was relatively sheltered from the triggers of global melt down, suffering instead due to monies from Foreign Institutional Investments drying up, falling interest rates rapidly raising inflations and poor investor confidence. Given the magnitude and importance of this industry it is not surprising that this Housing Finance Institutions has garnered much attention from researchers. Hence, the present study makes notable contribution to the existing literature on Indian housing finance institutions.

STATEMENT OF THE PROBLEM

The success of any business is largely depends on its effective financial management practices which starts with procurement of funds and ends with effective utilization of funds. Therefore continuous financial analysis of financial position and results is required to take corrective measures to meet the short-term and long-term requirements adequately. Financial statements are the sources for financial information, based on which the financial planning and decision making is done. The profit and loss account provides data about the operating activities where as balance sheet provides the value of acquired assets and liabilities of the business at a particular point of time. The absolute figures reported in the financial statements do not serve the purpose of measuring the financial health of the companies. Hence, the financial analyst has to analyze the financial data in order to ascertain the strengths and weaknesses of the companies. Despite the financial analyst had many analytical tools, ratio analysis is most powerful toll to ascertain the financial health of the companies. Alone a single ratio does not serve the purpose. Therefore, it is necessary to combine the different ratios into a single measure of the provability of sickness or failure. Multiple discriminant analysis is useful tool in such situations. “The use of MDA helps to consolidate the effect of all ratios”. The present study is concerned with the analysis of financial health of eight selected Housing Finance Institutions using MDA.

OBJECTIVE OF THE STUDY

To examine the financial health and viability of the selected Housing Finance Institutions.

RESEARCH METHODOLOGY

The present study is concerned with the analysis of financial health of the selected eight Housing Finance Institutions were found accepting deposits from the public and having continuous and uniform data throughout the period of ten years from 1999-2000 to 2008-2009.The entire study is based on secondary data. The data has been collected from websites of the companies.

MEASUREMENT OF FINANCIAL HEALTH

APPLICATION OF Z SCORE ANALYSIS

"Z" score analysis has been established by Edward I. Altman (1968) to evaluate the general trend in the financial health of an enterprise over a period. Many of the individual accounting ratios used frequently to predict the financial performance of an enterprise may only provide warnings when it is too late to take a corrective action. Further single ratio does not convey much of the sense. There is no internationally accepted standard for financial ratios against which the results can be compared. Therefore, Edwin I Altman combined a number of accounting ratios (liquidity, leverage, activity and profitability) to form an index of the probability, which was an effective indicator of corporate performance in predicting bankruptcy. Altman established the following guidelines to be used to classify firms as either financially sound or bankrupt.

GUIDELINES

Situation	Z – Scores	Zones	
I	Below 1.8	Bankruptcy Zone	– Certain to fall
II	1.8-3	Healthy Zone	– Uncertain to Predict
III	3 and Above	Too Healthy Zone	– Not to Fall

1. "Z" score of below 1.8, the unit is considered to be in bankruptcy zone. Its failure is certain and extremely likely and would occur probably within n period of two years.
2. "Z" score between 1.8, and 3, the firms' financial viability is considered to be healthy. The failure in this situation is uncertain to predict.
3. "Z" score above 3, the unit is in too healthy zone. Its financial health is very viable and not to fall.

VARIABLE DEFINITION

The variables (financial ratios) required for calculating Altman's Z Score are used to test the solvency position of the company. Solvency is the ability to meet long-term obligations and accomplish long-term expansion and growth. These ratios are also used to detect signs of looming bankruptcy. The following five ratios have been computed in this respect:

1. RATIO OF WORKING CAPITAL TO TOTAL ASSET (X_1)

The ratio of working capital to total assets is considered to be a reasonable predictor of deepening trouble for a company. A company which experiences repeated operating losses generally suffers a reduction in the working capital relative to its total assets. Table No.1 reveals the position of the Select HFIs in terms of Ratio of Working Capital to Total Asset.

TABLE NO. 1: RATIO OF WORKING CAPITAL TO TOTAL ASSET (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.07	0.09	0.08	0.05	0.07	0.03	0.99	0.06
2000-2001	0.10	0.08	0.07	0.10	0.06	0.04	0.98	0.04
2001-2002	0.07	0.04	0.06	0.06	0.05	0.07	0.98	0.06
2002-2003	0.04	0.05	0.08	0.08	0.08	0.06	0.98	0.05
2003-2004	0.39	0.10	0.02	0.05	0.03	0.02	0.93	0.04
2004-2005	0.02	0.06	0.03	0.04	0.02	0.01	0.06	0.03
2005-2006	0.03	0.01	0.04	0.04	0.02	0.01	0.07	0.02
2006-2007	0.04	0.02	0.04	0.06	0.02	0.01	0.05	0.01
2007-2008	0.03	0.06	0.04	0.04	0.01	0.00	0.04	0.03
2008-2009	0.01	0.06	0.03	0.04	0.01	0.03	0.00	0.01
2009-2010	0.06	0.05	0.06	0.06	0.04	0.06	0.10	0.05
2010-2011	0.20	0.11	0.02	0.08	0.07	0.08	0.06	0.02
2011-2012	0.11	0.08	0.05	0.06	0.06	0.08	0.06	0.04
Mean	0.09	0.06	0.05	0.06	0.04	0.04	0.41	0.04

Source: Annual Reports- Results Computed

It may be seen from the above table that the ratio of almost all the sample institutions were fluctuating during the study period. It was due to the fact that the working capitals of these institutions are decreasing and the total assets are increasing year by year. It shows the company had more concentration on the investments in fixed assets. The efficiency of the sample companies in the matter of management of working capital helps them to maintain the good financial health. But the working capital management of these institutions was satisfactory and not effective and sound especially in HUDCO the ratio was high showing higher investments in working capital.

2. RATIO OF RETAINED EARNINGS TO TOTAL ASSETS (X_2)

The Ratio of Retained Earnings to Total Assets provides information on the extent to which a company has been able to reinvest its earnings in itself. An older company must have time to accumulate earnings, so this measurement tends to create a positive bias towards older companies. Ratio of Retained Earnings / Total Assets of the sample companies were calculated and presented in Table No.2.

Table No.2: RATIO OF RETAINED EARNINGS TO TOTAL ASSETS (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.03	0.02	0.02	0.03	0.02	0.03	0.01	0.01
2000-2001	0.03	0.02	0.02	0.01	0.03	0.02	0.01	0.01
2001-2002	0.03	0.01	0.03	0.01	0.02	0.02	0.01	0.01
2002-2003	0.03	0.01	0.02	0.01	0.02	0.02	0.01	0.00
2003-2004	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.01
2004-2005	0.03	0.02	0.01	0.02	0.03	0.03	0.01	0.01
2005-2006	0.03	0.03	0.02	0.03	0.03	0.01	0.02	0.01
2006-2007	0.02	0.02	0.02	0.02	0.03	0.01	0.01	0.02
2007-2008	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02
2008-2009	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02
2009-2010	0.06	0.05	0.04	0.04	0.06	0.04	0.04	0.04
2010-2011	0.08	0.04	0.07	0.01	0.04	0.03	0.01	0.06
2011-2012	0.04	0.01	0.03	0.05	0.03	0.06	0.06	0.03
Mean	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.02

Source: Annual Reports- Results Computed

Conventionally, retained earnings to total assets ratio near 1:1 (100%) indicates that growth has been financed through profits, not increased debt. The analysis as per Table No.2 shows that the ratio was very less in all the sample Housing Finance Institutions which reflects that these institutions were not financing the capital expenditure through retained earnings. If the companies maintain the same, the sustainable growth of this company cannot be assured.

3. RATIO OF EARNING BEFORE INTEREST AND TAX (EBIT) TO TOTAL ASSETS (X_3)

This ratio adjusts a company's earnings for varying factors of income tax and makes adjustments for leveraging due to borrowings. These adjustments allow more effective measurements of the company's utilization of its assets. This ratio has been calculated for all the sample companies and shown in Table No.3.

TABLE NO. 3: RATIO OF EARNINGS BEFORE INTEREST AND TAXES TO TOTAL ASSETS (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.14	0.14	0.14	0.12	0.14	0.14	0.10	0.11
2000-2001	0.13	0.13	0.14	0.12	0.13	0.13	0.10	0.12
2001-2002	0.12	0.12	0.13	0.13	0.13	0.12	0.11	0.11
2002-2003	0.11	0.12	0.12	0.13	0.12	0.12	0.10	0.10
2003-2004	0.12	0.13	0.11	0.11	0.12	0.12	0.09	0.09
2004-2005	0.09	0.12	0.10	0.11	0.10	0.13	0.10	0.07
2005-2006	0.08	0.10	0.08	0.08	0.12	0.12	0.10	0.09
2006-2007	0.08	0.09	0.08	0.09	0.13	0.12	0.10	0.08
2007-2008	0.09	0.09	0.08	0.09	0.13	0.14	0.12	0.10
2008-2009	0.11	0.10	0.11	0.10	0.14	0.14	0.12	0.12
2009-2010	0.53	0.29	0.40	0.36	0.57	0.56	0.36	0.30
2010-2011	0.30	0.36	0.29	0.40	0.46	0.50	0.29	0.36
2011-2012	0.37	0.47	0.37	0.30	0.53	0.39	0.40	0.40
Mean	0.17	0.17	0.16	0.15	0.22	0.21	0.16	0.15

Source: Annual Reports- Results Computed

The operational performance and earning power could be assessed through this ratio of EBIT to Total assets which lead the business success or failure. Table No. 3 discloses that the ratio is fluctuating with decreasing trend for the first half of the study period in case of all the HFIs selected for the study which leads the mean ratio of these companies ranges between 10 and 14 per cent. The position was comparatively better in case of CANFIN and LIC. Hence, it is suggested to the sample companies that they should concentrate on improving their operating performance.

4. RATIO OF MARKET VALUE OF EQUITY TO BOOK VALUE OF DEBT (X_4)

It is the measure of the long-term solvency of a company. It is the reciprocal of the familiar debt-equity ratio. Equity is measured by the combined market value of all shares, while debt includes both current and long term liabilities. This ratio is used to ascertain the soundness of the long-term financial policies. The following table clearly presents the Ratio of Market Value of Equity to Book Value of Debt.

TABLE NO.4: RATIO OF MARKET VALUE OF EQUITY TO BOOK VALUE OF DEBT (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	4.98	8.19	6.00	12.40	7.90	7.22	9.18	6.51
2000-2001	6.20	8.21	5.86	9.23	7.95	7.44	7.71	6.68
2001-2002	6.52	8.18	5.48	7.28	8.06	8.23	7.58	7.18
2002-2003	6.94	6.90	6.45	7.31	8.57	8.40	7.24	7.96
2003-2004	7.64	5.44	7.45	9.38	7.57	8.60	7.39	9.05
2004-2005	8.45	3.65	8.48	9.03	7.50	9.55	6.84	10.91
2005-2006	9.4	3.02	8.26	10.99	7.96	9.24	6.22	11.91
2006-2007	10.46	4.31	8.46	12.43	9.23	10.24	5.92	10.76
2007-2008	10.30	5.47	8.86	7.95	8.86	10.58	5.21	6.14
2008-2009	5.79	6.48	8.92	9.32	7.71	11.11	4.51	6.68
2009-2010	4.74	3.37	5.08	7.31	5.41	6.06	3.99	4.56
2010-2011	4.15	2.82	4.78	7.03	4.81	7.12	4.57	5.21
2011-2012	5.33	4.17	5.48	8.07	6.03	6.48	3.79	5.80
Mean	6.99	5.40	6.88	9.05	7.50	8.48	6.16	7.64

Source: Annual Reports- Results Computed

From the Table No. 4, it is observed that the equity portion, on an average , of all the select Housing Finance Institutions were high in comparison to debt portion in the capital structure during the study period. It is evident that the mean ratios ranges between 5.99 times in case of DHFL and 9.53 times in the case of GRUH. It shows that the interest of the shareholders has been high due to the better financial position of the institutions and also it provides a margin of safety to its creditors in times of bankruptcy.

5. RATIO OF TOTAL INCOME TO TOTAL ASSETS (X_5)

This ratio is a standard financial measure for illustrating the income generating capacity of the assets in the financial institutions and also a measure of management's capacity to deal with competitive conditions. Table No.5 presents this ratio for the study period.

TABLE NO. 5: RATIO OF TOTAL INCOME TO TOTAL ASSETS (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.15	0.15	0.16	0.15	0.13	0.14	0.10	0.13
2000-2001	0.13	0.15	0.15	0.14	0.14	0.14	0.11	0.14
2001-2002	0.14	0.14	0.15	0.16	0.14	0.13	0.12	0.14
2002-2003	0.12	0.14	0.13	0.15	0.13	0.13	0.11	0.12
2003-2004	0.12	0.15	0.13	0.14	0.13	0.13	0.12	0.11
2004-2005	0.10	0.15	0.12	0.13	0.14	0.10	0.11	0.13
2005-2006	0.08	0.12	0.09	0.10	0.13	0.16	0.11	0.13
2006-2007	0.08	0.10	0.08	0.09	0.12	0.16	0.09	0.12
2007-2008	0.09	0.09	0.09	0.10	0.14	0.15	0.11	0.14
2008-2009	0.11	0.10	0.12	0.10	0.14	0.17	0.12	0.14
2009-2010	0.12	0.13	0.17	0.12	0.15	0.16	0.09	0.15
2010-2011	0.10	0.15	0.15	0.14	0.13	0.13	0.12	0.12
2011-2012	0.17	0.09	0.13	0.11	0.14	0.17	0.11	0.13
Mean	0.12	0.13	0.13	0.12	0.14	0.14	0.11	0.13

Source: Annual Reports- Results Computed

It is observed from Table No.5 that the total income to total assets ratio of HDFC, DHFL, DEWAN and GRUH were decreasing every year excepting few. It shows that these companies are having capacity to increase their total income over periods but not to the desired level. When the income generating capacity of the

assets of the select HFIs are concerned, the average ratio is fluctuating between 11% and 14% during the period under study. The ratio of CANFIN and LIC fluctuates but with increasing trend during the period of study.

Z SCORE ANALYSIS

The data collected were first analysed with the help of five accounting ratios. These different ratios are combined into a single measure-Z Score Analysis with the help of MDA. The formula used to evaluate the "Z"score analysis as established by Altman is as follows.

$Z = 0.012X_1 + 0.014X_2 + 0.033X_3 + 0.006X_4 + 0.999X_5$

Where;

X_1 = Working Capital to Total Assets

X_2 = Retained Earnings to Total Assets

X_3 = EBIT to Total Assets

X_4 = Equity to Total Assets

X_5 = Sales to Total Assets

Based on M*ultiple Discriminate Analyses (MDA)*, the model predicts a company's financial health based on a discriminant function of the form." Z" is the overall index and the variables X_1 to X_5 are computed with the relevant data for the study period.

TABLE NO.6: Z SCORE VALUES

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	3.93	5.99	4.59	8.55	5.79	5.30	7.51	4.75
2000-2001	4.69	5.96	4.48	6.58	5.76	5.41	6.57	4.88
2001-2002	4.86	5.84	3.29	5.79	5.82	5.91	6.53	5.19
2002-2003	5.06	5.03	4.78	5.37	6.14	6.01	6.27	5.61
2003-2004	5.46	4.21	5.32	6.60	5.44	6.05	6.28	6.26
2004-2005	5.87	2.99	5.19	6.35	5.29	6.52	4.91	7.36
2005-2006	6.47	2.44	5.72	7.48	5.49	6.24	4.54	7.94
2006-2007	7.12	3.18	5.85	8.41	6.26	6.88	4.22	7.28
2007-2008	7.07	3.96	6.09	5.53	6.10	7.16	3.81	4.39
2008-2009	4.24	4.65	6.26	6.49	5.43	7.50	3.37	4.76
2009-2010	5.51	3.89	5.75	7.89	6.23	6.88	4.58	5.10
2010-2011	4.84	3.48	5.31	7.66	5.51	7.82	5.07	5.77
2011-2012	6.02	4.82	6.06	8.59	6.79	7.18	4.42	6.40
Mean	5.47	4.34	5.28	7.02	5.85	6.52	5.23	5.82

Source: Annual Reports- Results Computed

For determining the financial health of this company, this study used Z score model, which provides the financial soundness of the institutions. Table No.6 shows the Z score values of the housing finance companies taken for the study. All the select housing finance Institutions have recorded between 4.42 in case of DHFL and 8.20 in case of DEWAN which is more than 3. It is the indication of viable financial health of the sample Housing Finance Companies. Thus, as per the Altman's guidelines, financial position of all these institutions was in the too healthy zoneduring the study period.

CONCLUSION

An attempt has been made in the present study to have an assessment over the financial health of Select Housing Finance Institutions in India. To evaluate the financial conditions and performance of these institutions, this study uses Z score model which captures the predictive viability of a company's financial health. The model employed a combination of financial ratios that ultimately predicts a score, which can be used to determine the financial health of a company. It is found from the analysis of data that the selected HFCs were having less investment in working capital except HUDCO. **The institutions have adequate MOS to their creditors** and their income generating capacity is also satisfactory. The results obtained through Altman's Z score analysis revealed that all the select Housing Finance Institutions were in the too healthy zone during the period of study, which implies that the financial health of these institutions is good and commendable.

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ROLE OF SCB's IN REACHING THE UNREACHED THROUGH FINANCIAL INCLUSION: AN INDIAN OVERVIEW

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ABSTRACT

Financial Inclusion is about delivery of banking services at an affordable cost to vast sections of disadvantaged, first step in FI is to facilitate people in getting basic facilities like food, shelter and clothing and then comes the provision of bank account, wherein they can save whatever little they can. For this purpose, how the SCBs are equipping themselves to surve vast section of the society? Further, bank infrastructure development in reaching the unreached through financial inclusion i.e. number of branches, population per branch, ATMs, services, Business Facilitators (BFs) and Business Correspondents (BCs), Swabhimaan Campaign, Ultra Small Branches (USBs), USSD Based Mobile Banking etc. To strengthen the Banking Infrastructure Steps taken by Reserve Bank of India like Direct Benefit Transfer (DBT), Expansion of ATM Network etc, are analyzed. It is found that, financial Inclusion of the unbanked & unprivileged masses is to be reached through the SCBs infrastructure development. Thus, it needs to identify the untapped potential of Indian economy which can begin revolution of growth & prosperity.

KEYWORDS

Financial Inclusion & exclusion, SCB's, Development of Bank infrastructure, ATM, RBI.

INTRODUCTION

The broader concept of financial inclusion is delivery of banking/financial services at an affordable cost to the vast sections of disadvantaged and low income groups. These banking/financial services are savings/deposits, loan/borrowings and, payment/settlement and remittance facilities. The insurance services come under savings facilities. Out of these three above mentioned important services if any one of the service is absent the entire concept will be considered as incomplete/insufficient financial inclusion. Commercial Banks, RRBs, Cooperatives, Government, M.F.I.s, SHGs, Post offices, NBFCs, NGOs, etc. are the provider of financial services and these have either adequate or inadequate presence in rural areas of the country.

Even the non-issuance of the pass-books to the small customers of savings bank account by the bank can indirectly lead to their financial exclusion (RBI 2006). There are several reasons for financial exclusion. In remote hilly, desert and sparsely populated areas the physical and communication infrastructure are insufficient. As a result access to financial services/institutions is severely restricted. The barriers of financial inclusion on demand side are illiteracy, lack of awareness and financial literacy, low income, pre-owned collateral/assets and social exclusion. The reasons for exclusion from the supply side are long distance of branch from the residence, un-adjustable timings of the branch, complicated procedure and intricacies of documentation, unfamiliar language, unsuitable products and staff attitudes.

The requirements of documentary proof of identity and residential address are the most important barrier in opening not only the bank account but also in post offices for availing the financial services. The most sufferers are newly married women and migrants in rural areas. The women cannot borrow from the bank due to lack of pre-owned collateral (as the women do not have the property rights) despite having the bank account. Even an account holder in the bank cannot borrow if he fails to mobilize a guarantor. These are the numerous constraints of financial inclusion.

OVERVIEW OF BANKING AND FINANCIAL INSTITUTIONS

The banking system in India is significantly different from that of other Asian nations because of the country's unique geographic, social, and economic characteristics. India has a large population and land size, a diverse culture, and extreme disparities in income, which are marked among its regions. There are high levels of illiteracy among a large percentage of its population but, at the same time, the country has a large reservoir of managerial and technologically advanced talents. About 30 and 35 per cent of the population resides in metro and urban cities and the rest is spread in several semi-urban and rural centers.

In order for the banking industry to serve as an instrument of state policy, it was subjected to various nationalization schemes in different phases. As a result, banking remained internationally isolated (few Indian banks had presence abroad in international financial centers) because of preoccupations with domestic priorities, especially massive branch expansion and attracting more people to the system. Moreover, the sector has been assigned the role of providing support to other economic sectors such as agriculture, small-scale industries, exports, and banking activities in the developed commercial centers (i.e., metro, urban, and a limited number of semi-urban centers).

FINANCIAL INCLUSION – PATH TOWARDS FUTURE

Though our country's economy is growing around 9 Per cent, still the growth is not inclusive with the economic condition of the people in rural areas worsening further. One of the typical reasons for poverty is being financially excluded. Though there are few people who are enjoying all kinds of services from savings to Net Banking, but still in our country around 40% of people lack access to even basic financial services like savings, credit and insurance facilities. So an inclusive sector should not only serve the bankable clients, but also integrate the "un-bankable" clients by making them "bankable". Many actions taken by the government like Nationalizing of Banks, 40% of credit targets to priority sector, opening of RRBs and LABs etc., for past three decades are one form of financial inclusion, but still around 80% of rural households do not have access to credit from a formal source.

So as a last door step to Financial Inclusion, RBI came up with an initiative of launching National pilot project on Financial Inclusion in Puducherry in 2005. The specialty of this Financial Inclusion project is that accounts are opened by the bank officials at the doorsteps of households without insisting on any minimum balance or deposits.

ROLE OF FINANCIAL INCLUSION IN BANKING SECTOR

Banking/financial services are in the nature of public good. Every citizen of India has right to have access to banking and financial services. The main objective of the public policy is to make available the banking and payment services to the entire population of the country without any discrimination. The open and efficient society emphasizes that there should be unrestrained access to public good and services by the population of the country. The consistent efforts are being made to examine the causes of financial exclusion and strategies are also adopted to ensure financial inclusion of the poor and underprivileged at international level. The reasons of financial exclusion vary from country to country and the strategies are also varied.

The developed countries and the developing country like India are making effort for financial inclusion in order to improve the financial condition and standards of lives of the poor and disadvantaged. The more developed the society the greater is the thrust on empowerment of the common person and marginal income groups in the lower strata of the society. In France it is a statutory right of the every citizen to have bank account. The financial inclusion Task Force in UK has identified three priority areas for the purpose of financial inclusion these are (i) access to banking (ii) access to affordable credit and (iii) access to free face–to–face money advice. Financial inclusion fund is established in UK in order to promote financial inclusion and assigned responsibility to banks and credit unions to remove the barriers of financial exclusion.

The nationalization of Banks changed the banking scenario in the country. There was paradigm shift from class banking to mass banking. The purpose of creating Regional Rural Banks to take the banking service to the marginalized sections of society especially for priority sector lending. The branches of commercial banks and RRBs have increased from 8321 in the year 1969 to 68,282 branches at the end of March 2005. The average population per branch office has decreased from 64000 to 16000 during the same period. Bihar, Orissa, Rajasthan, Uttar Pradesh, Chhatisgarh, Jharkhand, West Bangal and North-Eastern states are the under-banked states. The average population per branch office is quite high in comparison to national average in these states. In India 31, 59 per cent of population and adult population respectively have bank accounts. In other words 61, 41 per cent of population respectively is excluded from the coverage of banking services.

EXPANSION OF BANKING INFRASTRUCTURE

The banking system has had to serve the goals of economic policies enunciated in successive five year development plans, particularly concerning equitable income distribution, balanced regional economic growth, and the reduction and elimination of private sector monopolies in trade and industry.

TABLE-1: UTILIZATION OF BANKING SERVICES BY RURAL AND URBAN HOUSEHOLDS

Households	As per census 2001			As per census 2011		
	Total number of households	No. of households availing banking service	Per cent	Total number of households	No. of households availing banking service	Per cent
Rural	13,82,71,529	4,16,39,949	30.1	16,78,26,730	9,13,69,805	54.4
Urban	5,36,92,376	2,65,90,693	49.5	7,88,65,937	5,34,44,983	67.8
Total	**19,19,63,935**	**6,82,30,642**	**35.5**	**24,66,92,667**	**14,48,14,788**	**58.7**

Source: *Financialservices.gov.in/banking*

As per Census 2011, 58.7% households are availing banking services in the country. There are 1,02,343 branches of Scheduled Commercial Banks (SCBs) in the country, out of which 37,953 (37%) bank branches are in the rural areas and 27,219 (26%) in semi-urban areas, constituting 63 per cent of the total numbers of branches in semi-urban and rural areas of the country. However, a significant proportion of the households, especially in rural areas, are still outside the formal fold of the banking system. To extend the reach of banking to those outside the formal banking system, Government and Reserve Bank of India (RBI) are taking various initiatives from time to time some of which are enumerated below:

(a) Opening of Bank Branches: Government had issued detailed strategy and guidelines on Financial Inclusion in October 2011, advising banks to open branches in all habitations of 5,000 or more population in under-banked districts and 10,000 or more population in other districts. Out of 3,925 such identified villages/habitations, branches have been opened in 3,402 villages/ habitations (including 2,121 Ultra Small Branches) by end of April, 2013.

TABLE-2: NUMBER OF BRANCHES OF SCHEDULED COMMERCIAL BANKS AS ON 31ST MARCH, 2013

Bank Group wise number of branches as on 31st March, 2013					
Bank Group	**Rural**	**Semi – Urban**	**Urban**	**Metropolitan**	**Total**
Public Sector Banks	23,286	18,854	14,649	13,632	**70,421**
Private Sector Banks	1,937	5,128	3,722	3,797	**14,584**
Foreign Banks	8	9	65	249	**331**
Regional Rural Banks	12,722	32,228	891	166	**17,007**
Total	**37,953**	**27,219**	**19,327**	**17,844**	**1,02,343**

Source: *Financialservices.gov.in/banking*

(b) Each household to have atleast one bank account: Banks have been advised to ensure service area bank in rural areas and banks assigned the responsibility in specific wards in urban area to ensure that every household has at least one bank account.

(c) Business Correspondent Model: With the objective of ensuring greater financial inclusion and increasing the outreach of the banking sector, banks were permitted by RBI in 2006 to use the services of intermediaries in providing financial and banking services through the use of Business Facilitators (BFs) and Business Correspondents (BCs).

TABLE-3: NUMBER OF FUNCTIONING BRANCHES OF SCHEDULED COMMERCIAL BANKS DURING LAST FIVE YEARS

As on	Rural	Semi – Urban	Urban	Metropolitan	Total
March 31, 2009	31,476	19,126	15,223	14,325	**40,200**
March 31, 2010	32,493	20,855	16,686	15,446	**85,480**
March 31, 2011	33,905	23,114	17,599	16,419	**91,037**
March 31, 2012	36,356	25,797	18,781	17,396	**98,330**
March 31, 2013	37,953	27,219	19,327	17,844	**1,02,343**

Source: *Financialservices.gov.in/banking*

Business Correspondents are retail agents engaged by banks for providing banking services at locations other than a bank branch/ATM. BCs and the BC Agents (BCAs) represent the bank concerned and enable a bank to expand its outreach and offer limited range of banking services at low cost, particularly where setting up a brick and mortar branch is not viable. BCs as agents of the banks, thus, are an integral part of the business strategy for achieving greater financial inclusion. Banks had been permitted to engage individuals/entities as BC like retired bank employees, retired teachers, retired government employees, ex-servicemen, individual owners of kirana/medical/fair price shops, individual Public Call Office (PCO) operators, agents of Small Savings Schemes of Government of India/Insurance Companies etc. Further, since September 2010, RBI had permitted banks to engage for profit companies registered under the Indian Companies Act, 1956, excluding Non Banking Financial Companies (NBFCs), as BCs in addition to the individuals/entities permitted earlier. According to the data maintained by RBI, as in December, 2012, there were over 1,52,000 BCs deployed by Banks. During 2012-13, over 18.38 crore transactions valued at Rs.16533 crore had been undertaken by BCs till December 2012.

(d) Swabhimaan Campaign: Under "Swabhimaan" - the Financial Inclusion Campaign launched in February 2011, Banks had provided banking facilities by March, 2012 to over 74,000 habitations having population in excess of 2000 using various models and technologies including branchless banking through Business Correspondents Agents (BCAs).

Further, in terms of Finance Minister's Budget Speech 2012-13, the "Swabhimaan" campaign has been extended to habitations with population of more than 1000 in North Eastern and hilly States and to habitations which have crossed population of 1600 as per census 2001. About 40,000 such habitations have been identified to be covered under the extended "Swabhimaan" campaign.

(e) Setting up of Ultra Small Branches (USBs): Considering the need for close supervision and mentoring of the Business Correspondent Agents (BCAs) by the respective banks and to ensure that a range of banking services are available to the residents of such villages, Ultra Small Branches (USBs) are being set up in all villages covered through BCAs under Financial Inclusion.

TABLE-4: NUMBER OF SCHEDULED COMMERCIAL BANKS OPENED DURING LAST FIVE YEARS

Year	Rural	Semi – Urban	Urban	Metropolitan	Total
2008-09	706	1,290	1,046	953	**3,995**
2009-10	1,021	1,729	1,417	1,139	**5,306**
2010-11	1,422	2,258	919	981	**5,580**
2011-12	2,453	2,686	1,186	982	**7,307**
2012-13*	1,596	1,422	546	451	**4,017**

Source: *Financialservices.gov.in/banking****Provisional***

A USB would comprise of a small area of 100-200 sq. feet where the officer designated by the bank would be available with a lap-top on pre-determined days. While the cash services would be offered by the BCAs, the bank officer would offer other services, undertake field verification and follow up the banking transactions. The periodicity and duration of visits can be progressively enhanced depending upon business potential in the area. A total of over 50,000 USBs have been set up in the country by March, 2013.

(f) Banking Facilities in Unbanked Blocks: All the 129 unbanked blocks (91 in North East States and 38 in other States) identified in the country in July 2009, had been provided with banking facilities by March 2012, either through Brick and Mortar Branch or Business Correspondents or Mobile van. As a next step it has been advised to cover all those blocks with BCA and Ultra Small Branch which have so far been covered by mobile van only.

TABLE-5: NUMBER OF VILLAGES AND AVERAGE POPULATION PER BRANCH (APPB)

Number of Villages in India as per the 2001 Census	6,00,000 (Approx)
Average population Per Bank Branch (APPB) as on 31st March,2013	12,100

Source: *Financialservices.gov.in/banking*

(g) USSD Based Mobile Banking: The Department through National Payments Corporation of India (NPCI) worked upon a "Common USSD Platform" for all Banks and Telcos who wish to offer the facility of Mobile Banking using Unstructured Supplementary Service Data (USSD) based Mobile Banking. The Department helped NPCI to get a common USSD Code *99# for all Telcos. More than 20 Banks have joined the National Uniform USSD Platform (NUUP) of NPCI and the product has been launched by NPCI with BSNL and MTNL. Other Telcos are likely to join in the near future.

USSD based Mobile Banking offers basic Banking facilities like Money Transfer, Bill Payments, Balance Enquiries, Merchant payments etc. on a simple GSM based Mobile phone, without the need to download application on a Phone as required at present in the IMPS based Mobile Banking.

Steps taken by Reserve Bank of India (RBI): To strengthen the Banking Infrastructure,

(a) RBI has permitted domestic Scheduled Commercial Banks (excluding RRBs) to open branches in Tier 2 to Tier 6 Centres (with population upto 99,999 as per census 2001) without the need to take permission from RBI in each case, subject to reporting. SCB's also permitted to open branches in rural, semi urban and urban centres in North Eastern States and Sikkim without having the need to take permission from RBI in each case, subject to reporting. Domestic SCBs have been advised that while preparing their Annual Branch Expansion Plan (ABEP), they should allocate atleast 25% of the total number of branches proposed to be opened during the year in unbanked Tier 5 and Tier 6 centres i.e. (population upto 9999) centres which do not have a brick and mortar structure of any SCB for customer based banking transactions.

TABLE-6: NUMBER OF BANK BRANCHES OF SCHEDULED COMMERCIAL BANKS (SCBs) OVER THE YEARS

Number of Scheduled Commercial Banks Branches as on 31st December, 1969.	8,826
Number of Scheduled Commercial Banks Branches as on 31st March,1990	59,762
Number of Scheduled Commercial Banks Branches as on 31st March,2013	1,02,343

Source: *Financialservices.gov.in/banking*

(b) Regional Rural Banks (RRBs) are also allowed to open branches in Tier 2 to Tier 6 centres (with population upto 99,999 as per Census 2001) without the need to take permission from the Reserve Bank in each case, subject to reporting, provided they fulfill the following conditions, as per the latest inspection report: CRAR of at least 9%; Net NPA less than 5%; No default in CRR/SLR for the last year; Net profit in the last financial year; & CBS compliant. RRBs have also been advised to allocate at least 25 percent of the total number of branches proposed to be opened during a year in unbanked rural (Tier 5 and Tier 6) Centres).

(c) New private sector banks are required to ensure that at least 25% of their total branches are in semi-urban and rural centres on an ongoing basis.

Direct Benefit Transfer (DBT) - The objective of DBT Scheme is to ensure that money under various developmental schemes reaches beneficiaries directly and without any delay. The scheme has been launched in the country from January, 2013 and has been rolled out in a phased manner, starting with 26 welfare schemes, in 43 districts. The scheme is now being extended to additional 78 districts and additional 3 schemes from 1st July, 2013 and would be extended to the entire country in a phased manner.

The Government has also started the transfer of cash subsidy for domestic LPG cylinders to Aadhaar linked bank accounts of the customers with effect from 1st June 2013, in 20 pilot districts. About 75 lakh beneficiaries would be benefitted in these districts.

Banks play a key role in implementation of DBT and this involves four important steps, viz. (i) Opening of accounts of all beneficiaries; (ii) Seeding of bank accounts with Aadhaar numbers and uploading on the NPCI mapper; (iii) Undertaking funds transfer using the National Automated Clearing House - Aadhaar Payment Bridge System (NACH-APBS). (iv) Strengthening of banking infrastructure to enable beneficiary to withdraw money.

Banks are ensuring that all beneficiaries have a bank account. All Public Sector Banks (PSBs) and RRBs have made provision for Aadhaar seeding in the CBS. All PSBs have also joined the Aadhaar Payment Bridge of National Payments Corporation of India (NPCI). Banks have also started action for strengthening banking infrastructure and providing business correspondents in areas, which were so far unserved.

Further, advised to provide an onsite ATM in all the branches in identified districts and a Debit Card to all beneficiaries to enable him/her to withdraw the money as per his ease and convenience. Issuance of a Debit Card to all beneficiaries to enable him/her to withdraw the money as per his ease and convenience will also strengthen the withdrawal infrastructure.

Expansion of ATM Network: Pursuant to Budget announcement 2013-14, Banks are required to ensure an onsite ATM in all the branches. Out of 34,668 onsite ATMs thus identified to be installed by Public Sector Banks, 1,097 ATMs have been installed by end of April, 2013.

TABLE-7: NUMBER OF ATM IN THE COUNTRY AS ON 31ST MARCH, 2013

Bank Group	Rural	Semi – Urban	Urban	Metropolitan	Total
Public Sector Banks	8,552	18,445	22,518	20,137	**69,652**
Old Private Sector Banks	768	2,760	2,354	1,684	**7,566**
New Private Sector Banks	2,214	6,484	10,995	15,842	**35,535**
Foreign Banks	30	21	244	966	**1,261**
Total	**11,564**	**27,710**	**36,311**	**38,629**	**1,14,014**

Source: *Financialservices.gov.in/banking*

Ministry of Finance, Govt. of India is also playing a pivotal role for the greater financial inclusion in the country. In 2007-08 the Government had set up two Funds i.e., Financial Inclusion Fund (FIF) and Financial Inclusion Technology Fund (FITF) with a corpus of Rs. 500 crore each under NABARD. The purpose is to extend banking services to the unbanked areas. In the recent budget of 2009-10 the Government has further contributed rupees 100 crore to each of these funds in order to strengthen the pace of development of financial inclusion. The contributors to these funds are Government of India, RBI and NABARD. Many

countries have developed financial inclusion index in order to check the progress/status of financial inclusion. The Finance Ministry had also asked the nationalized banks to submit their financial inclusion plan by 31st March, 2010. The Ministry is going to introduce financial inclusion index from June, 2010 onwards in order to assess the progress of financial inclusion after the end of every quarter and in the various regions of the country.

CONCLUSION

Financial inclusion is the key to empowerment of poor, underprivileged and low skilled rural households. SCBs with better infrastructure can truly lift the financial condition and improve the standards of lives of the poor and the disadvantaged. Access to affordable financial services, especially credit and insurance, enlarges livelihood opportunities through adoption of different economic activities. Better financial inclusion would lead to increasing economic activities and self/wage employment opportunities for rural households. As a result rural households will earn greater return/disposable income. A higher disposable income at the hands of rural households would lead to greater savings and would provide a wider deposit base to banks and other financial institutions to be helpful in undertaking variety of economic activities. Thus, financial inclusion policy of SCBs provides monetary fuel for economic growth and it is considered critical for achieving inclusive growth.

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INFLATION MANAGEMENT IS THE KEY TO DEFLATE INFLATION PRESSURE

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ABSTRACT

Inflation is the major hindrance towards the growth and prosperity of the nation. It leads to increase in the value of the goods in comparison to price. The increase in the price of the food items has evident decline in the purchasing power of money. Infact the main cause of the inflation is the pumping out of the dollars by the US Federal Reserve in order to add more money into their system. The US Fed had been printing money to bolster its economy. In this critique, few of the inflation management strategy have been suggested to minimize the side effect of inflation on aam aadmi.

KEYWORDS

Inflation, GDP, Food Price, Economies, Infrastructure, Corruption, Fraud, Subsidies, Ranked.

INTRODUCTION

Inflation is defined as a sustained increase in the general level of prices for goods and services. It was becoming more deep-rooted because of faster growth in income, rising supply chain constraints and traditionally slow productivity growth. It is measured as an annual percentage increase. The value of a dollar does not stay constant when there is inflation. The value of a dollar is observed in terms of purchasing power, which are the real, tangible goods that money can buy. When inflation goes up, there is a decline in the purchasing power of money. For example, if the inflation rate is 2% annually, then theoretically a $1 pack of gum will cost $1.02 in a year.

MOUNTING 'INFLATIONARY PRESSURE'

The Indian rupee depreciated by over 20 per cent during the first three quarters of 2013, among other things due to concerns over continuing current account deficits in India and the impact of an expected tightening of monetary policy in the US, which has induced a general retrenching of international capital and reduced flows to India. The share of America's of goods in India Import basket was less than 5 per last year since dollar is the dominant currency in the international trade; most of the India's trade with other parts of the globe is also dominated in dollars. Exchange rate for most currencies in India is linked to the dollar rupee rate. To revive the US economy, the Federal Reserve has been pumping out $85 billion of cash per month (Called quantitative easing). Nonfarm Payrolls report shows the total number of paid workers of any business in the United States, excluding farm workers, private household employees, non-profit organization employees or government employees. Total nonfarm payroll employment increased by 195000 in June, in line with the average monthly gain of 182000 over the prior 12 months. In June, Job growth occurred in leisure and hospitality, professional and business services, retail trade, health care, and financial activities. The total nonfarm payroll accounts for approximately 80 per cent of the workers who produce the entire gross domestic product of the United States (Current Employment Statistics Programme from the U.S. Bureau of Labour Statistics).

With the US recovery, the fed plans to reduce this cash bonanza in stages to zero. Emerging markets like India have been long enjoyed a slice of this $85billion/month. Not only will fresh flows stop, older flows will reverse to the US, a net turnaround of hundreds of billions. This storm has knocked the rupee down almost 25 per cent in two months. It is the first of many storms that will hit not just India but the whole developing world, with every tightening of the money tap by the federal.

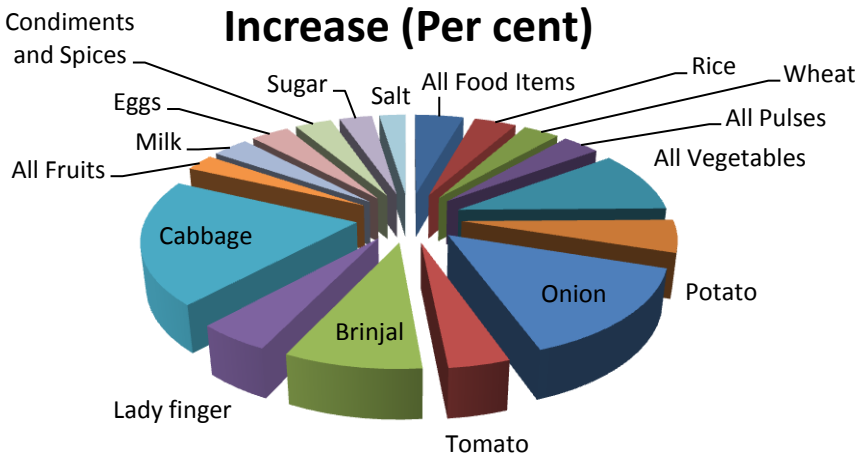
India now has large forex reserves, less debt and floating exchange rates which will suffer substantial damage. India with large current account deficits will suffer the most. A crashing currency raises the prices of all items that can be imported or exported. This erodes people's purchasing power may be by 2.5 per cent to 3 per cent of GDP in India's case.

TABLE I: MIXED PLATTER PRICE INCREASE 2004-2013

Commodities/Items	Increase (Per cent)
All Food Items	**157**
Rice	137
Wheat	117
All Pulses	**123**
All Vegetables	**350**
Potato	185
Onion	521
Tomato	139
Brinjal	311
Lady finger	166
Cabbage	714
All Fruits	**95**
Milk	119
Eggs	124
Condiments and Spices	**119**
Sugar	106
Salt	85

Source: Office of Economic Adviser, GOI

Figure I



Between 2004 and 2013, food prices in general rose by 157 per cent. India is the second largest producer of vegetables in the world. Yet, chronic supply shortages coupled with serial hoarding has led vegetable prices to shoot up by a deadly 350 per cent in that period. Onion prices have increased by an incredible 521 per cent and so on. That is hugely recessionary, as is already evident in the latest data showing falling production of services as well as manufactures. Such a recession can, in theory be combated by monetary and fiscal stimuli, as in 2008. But today money must be kept tight to check inflation, so no monetary stimulus is possible. Finance Minister has worn to limit the fiscal deficit to 4.8 per cent of GDP; so on fiscal stimulus is possible either. With the GDP growth and revenues falling far below budgeted numbers, and oil and fertilizer subsidies rising, they will have to slash Plan Investment to meet his fiscal target.

Experts said they expect inflation return to 6-7 percent range due to combination of factors including a weak rupee, which is expected to raise the price of imported inputs. With a weak currency, imported costs of production go up and eventually businesses might have to pass them on the consumers," rating agency Crisil said in a note. Economists said the sliding rupee has nearly wiped out the expected gains from soft global crude and commodity prices. Food prices, which have remained stubborn so far, may again rise due to an expected increase in fuel prices. As most of the food items are transported by road and train, any increase in diesel prices has a cascading impact on food prices. Given that freight and logistics costs are enormously high and 70 per cent of container transportation is through roads, a modal shift from road to rail is necessary. The eastern and western dedicated freight corridors should lead to radical reduction in freight costs.

WPI is partly the result of food inflation and partly the result of exchange rate depreciation. Economists said that 1 per cent depreciation in rupee adds 15 basis points to WPI inflation. But at a time when the economy is in a slow down phase and demand is low 10 per cent depreciation might add about 70 odd basis points.

INFLATION MANAGEMENT

Many of our economic wounds are self-inflicted. They are also relatively easy to reverse. There are essentially few ways that would help restore India to a path of higher growth with moderation of inflation. They will also help stabilize the rupee which now appears to be undervalued. There is a need to arrest the declining value of the rupee, triggered by a widening current account deficit that touched a historic high of 4.8 per cent of GDP in 2012-13. Some of the inflation Management strategies are as follows:

1**. Speedily reduce oil subsidies:** This is unsustainable and is a driving force behind India's current account deficit of 4.8 of GDP and the steep fall of the rupee. India imports more than 75 per cent of its crude oil requirement. India's annual oil import bill is $160 billion and we need to ensure that oil demand is elastic. The oil subsidy bill may hit Rs. 1, 50,000 crore in F.Y. 13-14. India should not subsidies fossil fuels. As a first step, diesel prices should be raised one off By Rs. 3 per litre. Oil companies should also be allowed to raise diesel price by Re 1 per litre every month till the current under recovery of Rs. 11 per litre vanishes. LPG prices should also be gradually raised per month so that the oil subsidy is controlled further. There should be a clear road map to eliminate all fuel subsidies and replace fuel subsidies with direct cash transfers to farmers and the poor. As energy costs have a major bearing on the manufacturing sector, India needs to get its power sector cracking by removing constraints on coal and gas.

2. Shift in consumer mindset in respect of goods consumption: Food subsidies must be replaced with cash transfers. Finance minister has said that for every Re 1 of benefits to the poor through subsidies, government needs to spend Rs. 3. Unfortunately, this is a very big if since giving Rs. 75 per person per month to 810 million individuals would cost only Rs. 729 billion per year compared with the grossly underestimated official cost of the bill at Rs. 1,245 billion. Cash transfers would also reach the beneficiaries with greater certainty and empower them rather than leak out along the massive PDS chain and empower the shopkeepers. Fixing prices at artificially low levels lead to demand exceeding supply for the subsidized goods so that the all too familiar shortages, rationing, corruption and black markets result. Several undesirable consequences may leads to loss of potential government revenue, low farm prices on agricultural products in the wake of sharp increases in the prices of other domestically produced and imported goods (such as fertilizers), turns the terms of trade against farmers and so on.

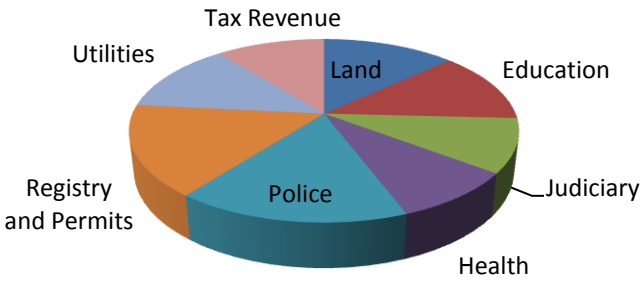
3. Reduce corruption: Transparency International ranks India 94th in the world with a score of 36/100.

TABLE II: ANTI BRIBERY AND CORRUPTION

Bribes	Percentage (%)
Land	50
Education	48
Judiciary	36
Health	34
Police	62
Registry and Permits	61
Utilities	48
Tax Revenue	41

Source: Guide to Anti Bribery and Corruption Laws

Figure II



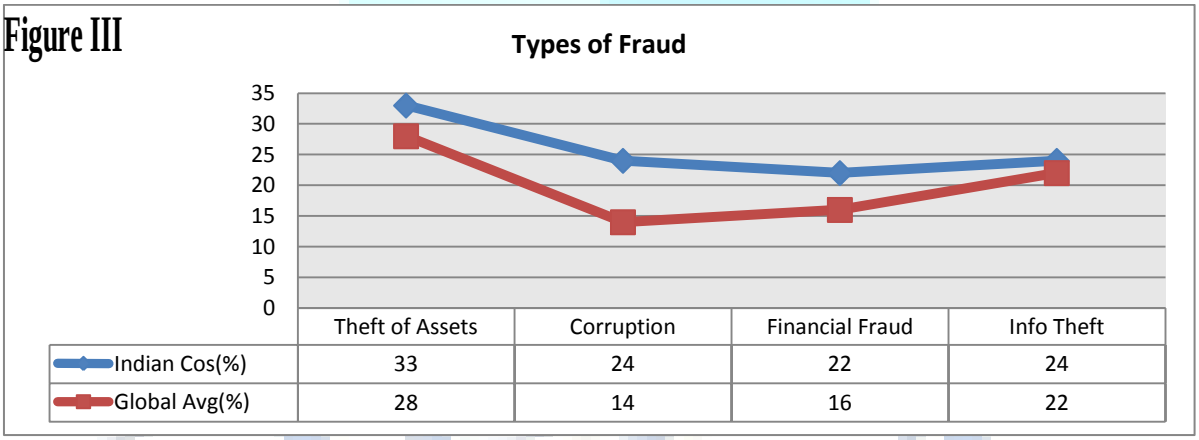
The service/sector where the bribe has been paid are land(50%), Education(48%), Judiciary(36%), Health(34%), Police(62%), Registry and Permits(61%), Utilities(48%) and Tax Revenue(41%). The above data reveals that major corruption normally found in police department and the least corruption in notice in health department. If this kind of dealing is stop, the entire fund can be channelized into more prospective endeavor. The entire business is supported by bribes. Money is an important part of the story. Movement of each and every file is supported by paper currency without which the process of moving the files cannot be undertaken. There has to be transparency in all the transaction. Lack of transparency, accountability, consistency, high social costs as well as institutional weaknesses such as in the legislative and judicial systems; provide productive platform for intensification of economic rent seeking tricks in a country. Recent judicial action is a positive step, but interrupting this rhythm requires deeper institutional change. A public awareness campaign might make a dent in corruption rates. Whistleblower Reward Lawsuits are the most effective method for identifying and preventing large scale fraud against the government, in financial markets, and in large corporations. Emphasis must be placed on preventing corruption by tackling the root causes that give rise to it through undertaking economic, political and institutional reforms. Anti-corruption enforcement measures such as oversight bodies, a strengthened police force and more efficient law courts will not be effective in the absence of a serious effort to address the fundamental causes. Corruption will not disappear because of reforms, but reforms will bring it under control and minimize its undesirable consequences so that the country can proceed with its efforts to become a modern, developed nation with a good chance of attaining that goal. Corruption reduces as countries open their economies and move towards free markets and free trade.

TABLE III: INTERNAL THREATS

Types of Fraud	Indian Companies (%)	Global Average (%)
Theft of Assets	33	28
Corruption	24	14
Financial Fraud	22	16
Info theft	24	22

Source: Global Fraud report released by Kroll

Figure III



The figure has something to say. Green shoots may be visible in global economies and stock markets may have picked up, but so have fraud statistics in the world of business. The seventh edition of the Global Fraud Report released by Kroll, a corporate investigation firm, reveals that 71 per cent of those surveyed in India feel that their exposure to fraud has increased, up from 67 per cent last year. On the whole, 70 per cent of those polled globally feel that they suffer from at least one kind of fraud, which is pretty much in line with the Indian statistics.

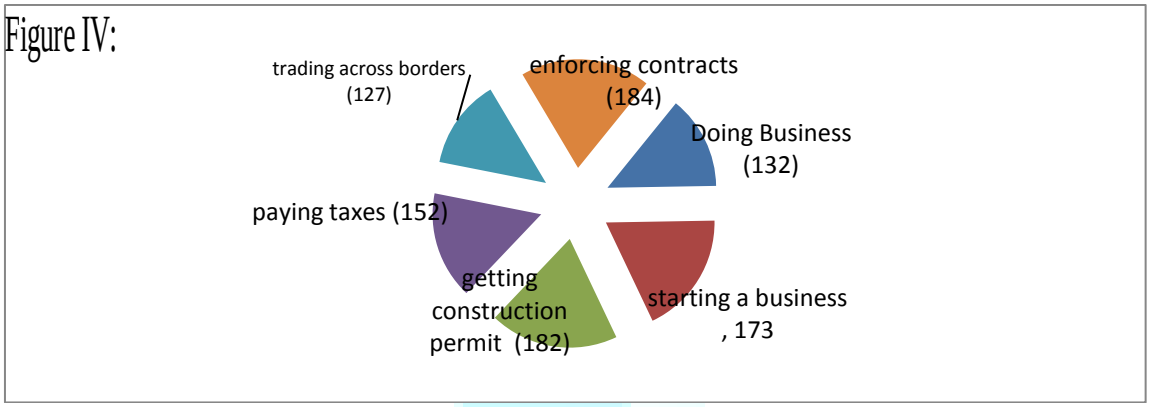
However, the Indian figures are disturbing because they are far above global and BRIC nation averages when it comes to specific types of fraud. Some typical fraud schemes associated with assets are no business use of the asset scheme; excessive expenditure scheme; asset purchase scheme; other asset fraud schemes; and asset retirement scheme. Financial fraud is a situation in which the legal and ethical management of financial resources does not take place. There are many different types of financial fraud, including insider trading, embezzlement, falsifying financial records, and Ponzi schemes. A number of domestic and international companies are therefore delaying investments in India because of risks related to corruption and bribery. The findings are contained in a study commissioned by Kroll with the Economist Intelligence Unit of more than 901 senior executives worldwide, including 51 in India. Table above reveals that 33 per cent of the theft of assets was identified in Indian companies whereas, 28 per cent as compared to global average. Corruption and info theft with regards to Indian companies is the same i.e. 24 per cent. There have been a growing number of cases of corruption over the past few years, viz; systemic corruption; sporadic (individual) corruption; political (Grand) corruption; grand corruption and petty corruption. **S**imilarly; information theft on the other hands is a burning issue. While more and more electronic security measures have been going up to protect people's possessions and information, these new technologies have bugs and design flaws that are opening up whole new worlds for the technologically advanced criminal, viz credit card number theft; ATM spoofing; PIN capturing; database theft and electronic cash.

4. Need to address supply side constraints: India has inadequate infrastructure: power, roads, ports, railways, etc. Port infrastructure needs a radical overhaul as the average turnaround time in India is 3.5 days as against a mere 10 hours in Hong Kong and 16.5 hours in Colombo. Mere redistribution through increased subsidies without addressing inadequate infrastructure leads to stagflation-slow growth with high inflation. Due to lack of adequate storage infrastructure,

fruits, grains and vegetables worth Rs. 44,000 crore go waste every year. Rupees 150000 crore worth of government infrastructure projects are held up for want of various clearances.

Economies are ranked on their ease of doing business, from 1 to 189. A high ranking on the index means the regulatory environment is more conducive to starting and operating a local firm. This index averages the country's percentile rankings on 10 parameters, made up of a variety of indicators, giving equal weight to each. Singapore tops the list of top 10 economies with the most business friendly regulatory environments followed by Hong Kong, New Zealand, the US, Denmark, Malaysia, South Korea, Georgia, Norway and the UK.

Figure IV:



Doing Business 2014 per cent 10 indicator sets are: starting a business, dealing with construction permits, getting electricity, registered property, paying taxes, trading across borders, getting credit, protecting investors, enforcing contracts, resolving insolvency, The Annual Doing Business report of the World Bank shows that India ranks only 132nd out of 185 countries in ease of doing business, and has not improved its ranking for years. India's ranking is particularly bad in relation to ease of starting a business (173rd), getting construction permit (182nd), paying taxes (152nd), trading across borders (127th) and enforcing contracts (184th). The Government needs to speedily implement pending governance and investment reforms to move India to a higher growth path.

5. Refrain from imposing capital controls: India needs $250 billion in the next 12 months to fund its trade deficit and its short-term loan repayment obligations. Announcement of capital controls on companies individuals led to free fall of rupee. Net outbound foreign investments by Indian firms were $7 billion last year. Outbound personal remittances by Individual were $1 billion last year. India attracted the largest volume of remittance in 2013 with $71 billion through exports of telecommunications, Computer and information services. The imposition of these partial controls has spooked both foreign investors and NRIs who fear a replay of the capital controls imposed by Malaysia in 1998.

6. Focuses on labour-intensive factories: India will have to radically transform its manufacturing sector by focusing on large-scale labour-intensive factories producing exportable goods, reducing the share of employment in agriculture from the present 58 per cent to 25 per cent by 2030, with industry doubling its labour demand. If the sector has to grow in the recent of 12-14 per cent over the medium term, exports have to play a critical role and they must accelerate at a much faster pace and achieve growth rates of 20-25 per cent in real terms.

Industry is just 27 per cent of output, compared with 40-47 per cent in other big developing Asian economies. Manufactured goods, comprising 78.8 per cent of India's export basket in 2000-01, dropped to 64.5 per cent in April-November 2012 and textiles collapsed from 23.6 per cent to 8.7 per cent. When India needs to create about 100 million net new jobs in the next decade, as the NSSO reports, the number of jobs created between 2004-05 and 2011-12 aggregated just 23 million compared to 50 million between 1999-2000 and 2004-05.

Small and medium enterprises account for 40 per cent of India's workforce and contributing to 45 per cent of India manufacturing output. India needs to enhance their scale of operations, ensure better adoption of technology, and provide innovative financing and a mechanism for upgrading skills of workers. As the 2012-13 Economic Survey pleads for seizing the demographic dividend, the prerequisite of two factors has to be ensured; one, a drastic quality improvement in the workforce by much better education, health and skill development and second, creating better livelihood opportunities.

Labour–intensive sectors like food processing, apparels and textiles, leather and footwear contribute to over 60 per cent of SME's employment. Greater focus on growth of labour-intensive sectors will enable absorption of growing surplus of unskilled labour particularly in UP, Bihar and Jharkhand.

CONCLUSION

Sustained economic growth since the 1991 economic reform has lifted hundreds of millions out of poverty. Remittance volumes to developing countries, as a whole, are projected to continue growing strongly over the medium term, averaging an annual growth rate of 9 percent to reach $540 billion in 2016. A return to 9 per cent economic growth rate is certainly achievable and will ensure that poverty is wiped out from India within a generation. The RBI must come out with special measures to arrest the declining value of the rupee. A swap arrangement is meant to protect two countries meet temporary shortages and deal currency volatility. India already has a swap agreement with Japan, which has not been used so far.

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RETRENCHMENT AND STRIKES IN SICK UNIT: A CASE STUDY ON LML

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ABSTRACT

Industrial sickness is one of the most complex problems of the Indian economy. In spite of the different measures taken by the Government, the problem persists. The rise has remained unabated, even in the years after the passage of the sick Industrial Companies Act (SICA) and the creation of the Board for Industrial and Financial Reconstruction (BIFR). This study reveals that the sick units have not only lost their net worth, but they have also lost capital raised from sources other than ownership. The extent of accumulated losses of sick units in India is about two times that of the net worth of the units. The study reveals the failure of the policies in controlling industrial sickness in India, and puts forward certain suggestions to revamp the policy framework so as to effectively tackle the problem. The two variables i.e Retrenchments and strikes are used to explain the sick units.

KEYWORDS

SICA, Sick Units, Retrenchment and Strike.

INTRODUCTION

Retrenchment is something akin to downsizing. When a company or government goes through retrenchment, it reduces outgoing money or expenditures or redirects focus in an attempt to become more financially solvent. Many companies that are being pressured by stockholders or have had flagging profit reports may resort to retrenchment to shore up their operations and make them more profitable. Although retrenchment is most often used in countries throughout the world to refer to layoffs, it can also label the more general tactic of cutting back and downsizing.

Strike is a work stoppage caused by the mass refusal of employees to perform work. A strike usually takes place in response to employee grievances. Strikes became important during the industrial revolution, when mass labor became important in factories and mines. In most countries, they were quickly made illegal, as factory owners had far more political power than workers. Most western countries partially legalized striking in the late 19th or early 20th centuries.

LITERATURE REVIEW

In the words of Michael Braun, (Assistant Professor at the School of Business Administration, University of Montana, Missoula, Montana, USA) and Scott Latham, (Assistant Professor at the University of Massachusetts, Lowell, Massachusetts, USA), the interaction between two restructuring actions – retrenchment and repositioning - determines the outcome of corporate turnarounds. By overemphasizing downsizing, managers fail to jumpstart entrepreneurial growth that can propel the firm towards long-term competitive advantage. Similarly, stresses arising from excessive growth programs can quickly drain firm resources.

Grahame R. Dowling (University of Newcastle, New South Wales) viewed that although in the short term customers changed to a competitor's product when their usual brands were unavailable, overall market share returned to previous levels in the post-strike period.

In the words of Edgar Krau, (Department of Labor Studies, Tel Aviv University), at the turn of the decade the tendency of retrenchment in organizations appeared as a byproduct of an ongoing recession threatening with heavy consequences for the future.

P.B. Beaumont, (Department of Social and Economic Research, University of Glasgow) emphasized on increase in strike activity in the public sector of a number of member countries in recent times. Moreover, it was noted that strikes have started to occur in the traditionally “quiet” parts of the public sector in various countries.

R. BEAN, D.A. PEEL, (University of Liverpool), observed that a strike is not the only available collective sanction open to a dissatisfied workforce, which may have recourse to alternative forms of militant action such as the go-slow or overtime ban.

Hilal Ahmad Malla focused on the problem of industrial sickness has been growing at an annual rate of about 28% and 13% respectively in terms of number of units and outstanding number of bank credit. It is reckoned that as of today there are more than 2 lakhs sick units with an outstanding bank credit of over Rs 7000 crore nearly 29000 units are added to sick list every year.

A Satyanarayan, P.V. Purna Kumari suggested that a team of experts in production, marketing and finance should also share their experiences to improve the performance of the sick units. It would be ideal that they should assume this responsibility with a sense of urgency and shoulder the burden of revival of these units.

Basu, Kaushik and Fields, Gary and Debgupta, Shub, stressed on a theoretical model to analyze the anti retrenchment. Anti-retrenchment law can cause wages and employment to rise or fall, depending on the parametric conditions prevailing in the market. This model is used to isolate conditions under which an anti-retrenchment law raises wages and employment.

Bockerman Petri, Iimakunnas Pekka explores the potential role of adverse working conditions in the determination of workers' sickness absences and regional labour market conditions are an important determinant of sickness absences. Recursive models suggest that the prevalence of harms at the workplace is associated with job dissatisfaction and dissatisfaction with workers' sickness absences.

Bertil Holmlund said that sickness appears as random shocks to individual utility functions, interacts with individual search and labor supply decisions and triggers movements across labor force states. The employed worker prefers absence for sufficiently severe sickness and the unemployed worker may prefer non-participation if the disutility of search is amplified by sickness.

According to Industrial Sickness in India: Dimensions, Threats, and Remedies B. K. Singh Banaras Hindu University, Industrial sickness is one of the most complex problems of the Indian economy. In spite of the different measures taken by the Government the problem persists. The rise has remained unabated, even in the years after the passage of the Sick Industrial Companies Act (SICA) and the creation of the Board for Industrial and Financial Reconstruction (BIFR). The study reveals that sick units have not only lost their net worth, but they have also lost capital raised from sources other than ownership. The extent of accumulated losses of sick units in India is about two times that of the net worth of the sick units. The study reveals the failure of the policies in controlling industrial sickness in India, and puts forward certain suggestions to revamp the policy framework so as to effectively tackle the problem.

OBJECTIVES OF STUDY

PRIMARY OBJECTIVES

The primary objective of the study is to analyze the overall factor which leads to sickness of any organization.

SECONDARY OBJECTIVES

1. To analyze the main reasons of strike in sick units
2. To find out that the employees getting salary at right time in sick units.
3. To find out the remedial measures taken to come over them by the organization or by the Government.

4. To find out the role of trade union in combating with retrenchment and strikes in the companies.
5. To get to know about Retrenchment in sick unit in which age group
6. To know whether the strikes are frequently in sick units

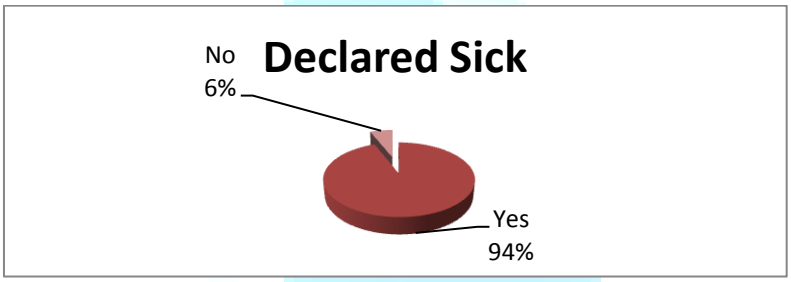
RESEARCH METHODOLOGY

Research Design: - Descriptive research design was used.
Sampling plan: - The plan calls for two decisions.
(a) Sampling Unit: - employees working in LML Delhi.
(b) Sampling Size: - 50 respondents.
DATA COLLECTION
The study is mainly based on the primary data; however, the secondary data is also used to some extent.
RESEARCH INSTRUMENT USED
Questionnaire and statistical tool was also used – pie diagram

DATA ANALYSIS

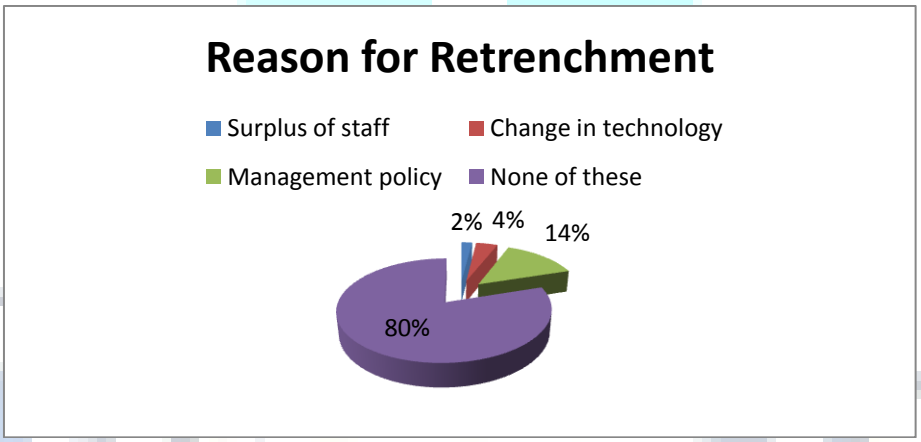
Q. 1. Is your organization is declared as sick unit by the government?
(a) Yes
(b) No

Yes	47
No	3



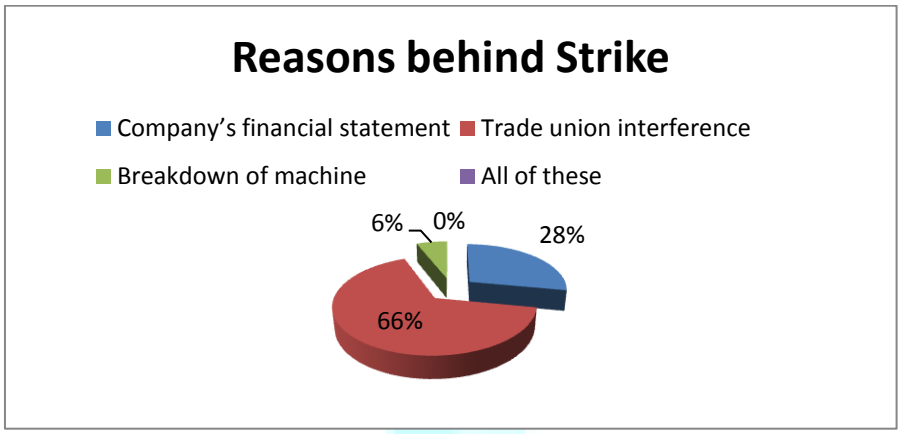
Interpretation
From the above analysis it can be said that all the respondents are aware and know that the LML is declared sick unit by government.
Q. 2. Why employees are retrenched in your organization?
(a) surplus of staff
(b) Change in technology
(c) Management policy
(d) All of these

Surplus of staff	1
Change in technology	2
Management policy	7
All of these	40



Interpretation
86% of the respondents are of the view that the employees are retrenched in an organisation due to financial losses in a company, the surplus staff and the change in technology whereas 14% of the respondents are of the view that it is due to management policy.
Q. 3. What is the main reason behind strike in your sick unit?
(a) Company's financial statement
(b) Trade union interferences
(c) Breakdown of machinery
(d) All of these

Company's financial statement	14
Trade union interference	33
Breakdown of machine	3
All of these	0



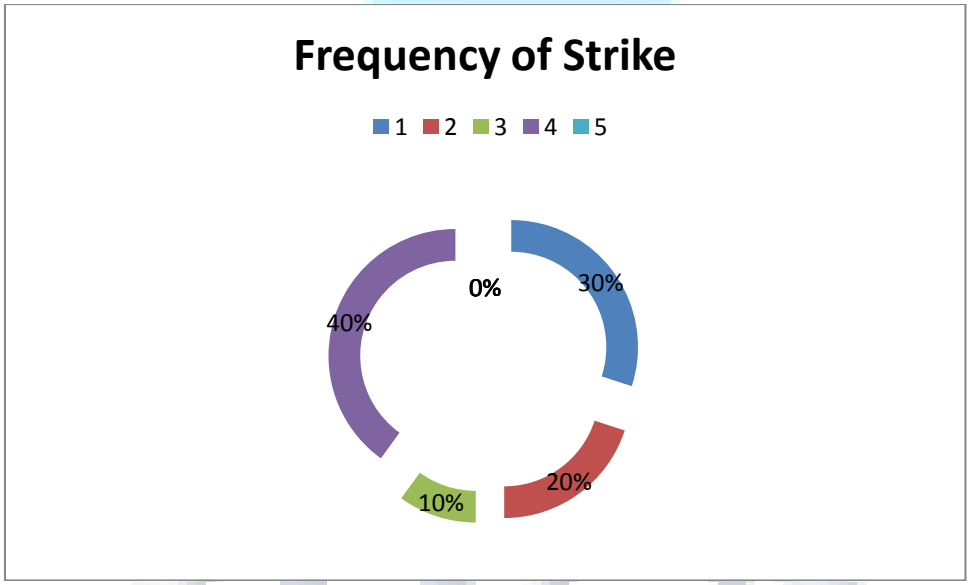
Interpretation

The 66% of the respondents are of the view that the main reason is the trade union interference while 28% are of the view that its due to the financial statement of the company.

Q. 4. What is the frequency of strike (in a month) in your organization?

(a) 1 strike
(b) 3 strikes
(c) More than 3 strikes
(d) No strike

1 strike	15
3 strike	10
More than 3 strikes	5
No strike	20



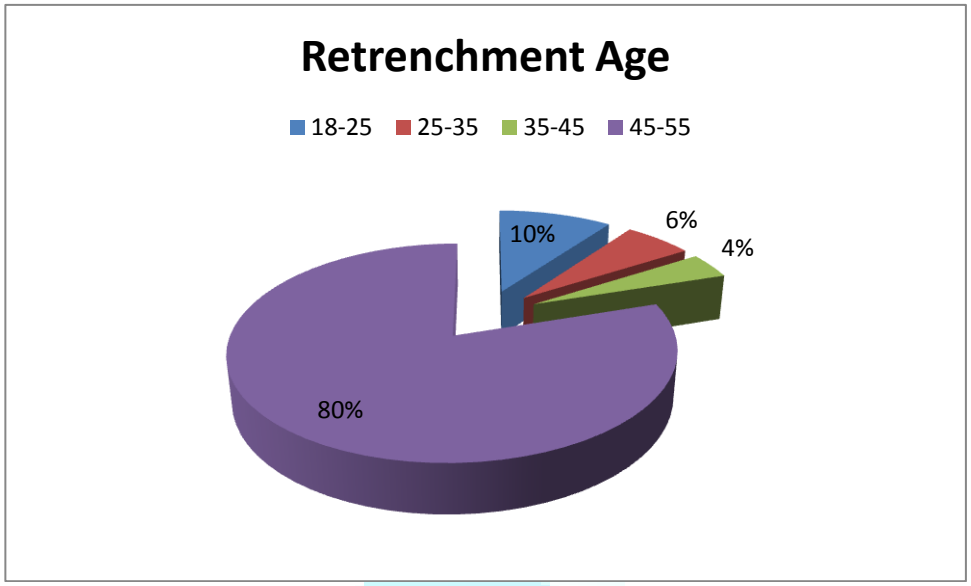
Interpretation

The 15 employees are of the view that there are approximately 1 strike a month whereas 10 said that there are 3 strikes a months while other 5 employees inform that there are more than 3 strikes a months.

Q. 5.Retrenchment in sick unit can be seen mainly in age group of:

(a) 18-25 years
(b) 25-35 years
(c) 35-45 years
(d) 45-55 years

18-25	5
25-35	3
35-45	2
45-55	40



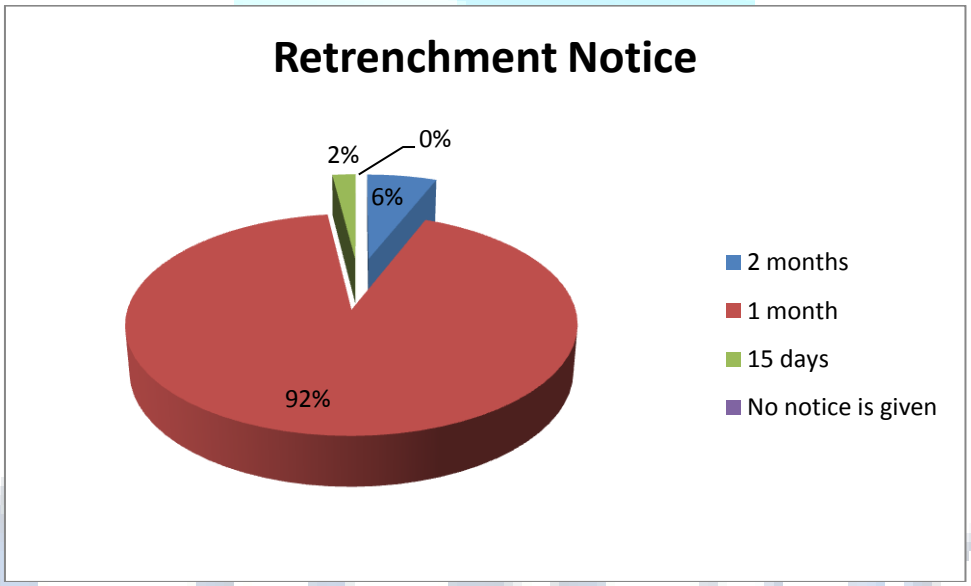
Interpretation

80% of the employees say that the people are retrenched near to 45- 55 years of age.

Q. 6. When the retrenchment notice is given to the employees before they are retrenched?

(a) 2 months
(b) 1 month
(c) 15 days
(d) No notice is given

2 months	3
1 month	46
15 days	1
No notice is given	0



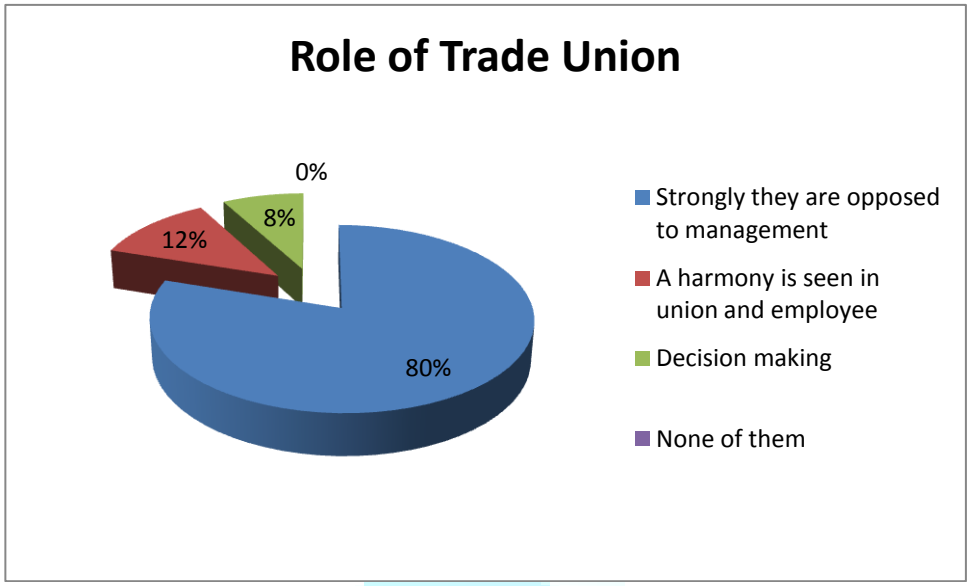
Interpretation

90% of the respondence told that the retrenchment notice is given before 1 month.

Q. 7. What is the role of trade union in combating with retrenchment and strikes?

(a) Strongly they are opposed to management
(b) A harmony is seen in union and employees
(c) Trade union are given chance in decision making in company facing sick economic crises
(d) None of them

Strongly they are opposed to management	40
A harmony is seen in union and employee	6
Decision making	4
None of them	0



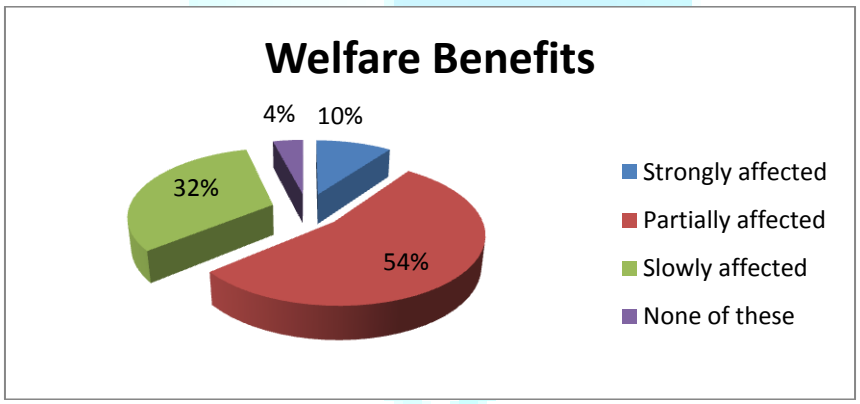
Interpretation

80% of the respondents are of the view that the role of trade union is in combating with retrenchment and strikes while 12% of the respondents said that the harmony between employees and union is also helpful while strikes.

Q. 8. Is the employee's welfare benefits are affected in your sick units?

(a) Strongly affected
(b) Partially affected
(c) Slowly affected
(d) None of these

Strongly affected	5
Partially affected	27
Slowly affected	16
None of these	2



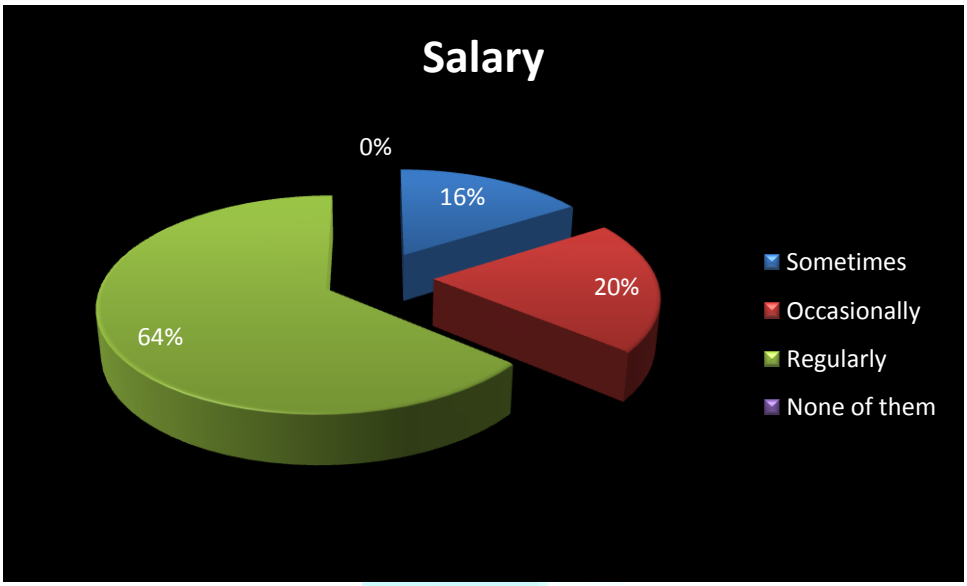
Interpretation

54% of the employees are of the view that welfare benefits of the retrenched employees are partially affected whereas 32% says that it is slowly affected and 10% says its strongly affected.

Q. 9. Are you getting the salary at right time in your organization?

(a) Sometimes
(b) Occasionally
(c) Regularly
(d) None of them

Sometimes	8
Occasionally	10
Regularly	32
None of them	0



Interpretation

Now a days all the employees are getting salary regularly on time but while in financial crises its sometimes that they donot get salary on right time.

FINDINGS AND SUGGESTIONS

- The LML limited is a sick unit declared by government.
- Most of the shops and showroom of LML are shut down.
- Now a day the employees are getting salary regularly for their work.
- The main reason of strike in sick units is financial crises in a sick unit.
- The strikes are now not frequent in LML.
- All the retrenched employees are fully benefited with retrenchment benefits.
- The organization should shut down its business if it cannot able to survive in the market.
- An organization should open its branch in all cities.
- It should plan better attractive marketing strategies to survive in the market.

CONCLUSION

It has been studied that the LML i.e the Lohia Motor Limited is a company which was declared sick in 2006 due to the lockout in the organization. The HMSI Plant of the company in Gurgaon was shut down because of labour trouble in a company. All the sites in Kanpur were also shut down and locked due to the lack of production or it can be said that the production was suspended over a month or two. The company bears the loss of approximately 2crores due to which it cannot be able to pay the salary to the employees.

The reasons for LML is a sick unit are : (A) its financial losses, (B) The higher rate of conflict between the employees and employers of the organization, (C) lower level of production in a company, (D) frequent strikes in the unit and many more. The Government of India took further measures for the upliftment of the company but the problems persist. With the passage of years the SICA – Sick Industrial Company Act comes into existence which helps the company by its Rehabilitation program due to which the LML was able to raise its lost capital. Slowly and steadily the company grows, cover its losses and in today's scenario it is operating and working in the competitive world but with the change in its products. Now the company is dealing in Scooty and motor bikes. The employees of the company are getting regular salaries on time and there is no more strikes and lock outs in the organization. There is a downfall in the retrenchment as the employees are satisfied from their job and job situation.

Hence in the end it can be concluded that the LML which was the sick unit, was now in the market and successfully running its business in the competitive environment with different strategies.

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ANNEXURE

QUESTIONNAIRE

Q. 1: Is your organization is declared as sick by the government?
- (a) yes
- (b) no

Q. 2: Why employees are retrenched in your organization?
- (a) surplus of staff
- (b) change in technology
- (c) management policy
- (d) all of these

Q. 3: What is the main reason behind strike in your sick unit?
- (a) company's financial statement
- (b) trade union interferences
- (c) breakdown of machinery
- (d) all of these

Q. 4: What is the frequency of strike in your organization?
- (a) 1strikes
- (b) 3 strike
- (c) More than 3 strikes
- (d) No strikes

Q. 5: Retrenchment in sick unit can be seen mainly in age group of
- (a) 18- 25 years
- (b) 25- 35 years
- (c) 35 – 45 years
- (d) 45- 55 years

Q. 6: When the retrenchment notice is given to the employees before they are retrenched?
- (a) 2 months
- (b) 1 month
- (c) 15 days
- (d) No notice is given

Q. 7: What is the role of trade union in combating with retrenchment and strikes?
- (a) strongly they are opposed to management
- (b) a harmony is seen in union and employees
- (c) Trade union are given chance in decision making in company facing sick economic crises
- (d) None of them

Q. 8: Is the employee's welfare benefits are affected in your sick units?
- (a) strongly affected
- (b) partially affected
- (c) slowly affected
- (d) none of these

Q. 9: Are you getting the salary at right time in your organization?
- (a) sometimes
- (b) occasionally
- (c) regularly
- (d) none of these

PERFORMANCE APPRAISAL SYSTEM IN A GARMENT MANUFACTURING ENTERPRISE, TIRUPUR

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ABSTRACT

Performance appraisal has increasingly become part of a more strategic approach to integrating HR activities and business policies and may now be seen as a generic term covering a variety of activities through which organizations seek to assess employees and develop their competence, enhance performance and distribute rewards. The present study was carried out to evaluate whether performance appraisal is effectively implemented in a garments manufacturing enterprise in Tirupur of Tamilnadu. The study relies on information available at the study organization and through discussion among key personnel of performance appraisal system. The research reveals that the study organization is performing well in certain areas of performance appraisal system such as creating individual goal, training to evaluators/superiors, opportunity for self review and individual development. However, the study organization seems to be weak in certain aspects like no uniform evaluation, bias in appraisal, lack of proper orientation, tying performance appraisal with salary and promotion. Based on the findings, the paper has suggested measures to improvise the performance appraisal system of the study organization.

KEYWORDS
Human Resource, Performance Appraisal.

INTRODUCTION

There is a great degree of awareness taking place in the management world about the potential use of performance appraisal. It can play crucial role in developing capabilities, creating an open culture, strengthening the superior-subordinate relationship, developing process skills and paving the way for recognizing the usage. The role of performance appraisal in managerial and organizational effectiveness is being recognized. In India, appraisal systems are beginning to be recognized as a equally potential tool for development. In the future, there is likely to be more and more experimentations with new appraisal systems that contribute towards improving in quality of work life as well as to the development of human resource. This subject has wide aspects because of its multi-complex and unique variables which warrants more exploration. A review of literature shows that the studies on performance appraisal with reference to medium scale unit and garment industry are rather scanty. Towards this end, the present study is carried out.

REVIEW OF LITERATURE

The performance appraisal is a technique that has been credited with improving performance (Bagozzi, 1980) and building both job satisfaction and organizational commitment. It is a subject of research for over 70 years (Landy and Farr, 1980). Performance appraisal is potentially one way in which those efforts can be aligned with the aims of an organization, employees can be motivated and their performance managed. Success of an organization largely depends on how effectively employees perform their jobs (Heneman 111 and Schwab, 1982). Employee PA monitors how far and how well employees perform their jobs. PA identifies, measures and develops job performance of employees in an organization and therefore it is a planning technique of employee performance and a controlling technique of employee performance as well). Udai Pareek and Rao (1998) reviewed performance appraisal system at L & T in detail in 1997 in the view of introduction of total quality management in the company. It continues to identify developmental needs and to design training programmes. The objective setting is more focused on the process to achieve results. Job rotation, customer satisfaction and continuous improvements have also been incorporated in the system to devote it to the TQM Philosophy of the company. Performance appraisal is among the most important human resource (HR) practices (Boswell and Boudreau,2002). Venkataramana Rao (2005) carried out a study in the hi-tech public sector unit. The study covers 50 executives about the existing performance appraisal system. The study revealed that the team of high-spirited, enthusiastic, competent personnel is to be identified through the proper assessment of individual; a good performance appraisal system will highlight the performance level of the individual and his potential for advancement; to obtain the high-spirited competitive individuals, they should know their current level of performance, the area of drawbacks where they need to be trained and should be motivated and groomed to the needs of the company. Recently, scholars have begun to argue that employee emotions and perceptions are important in determining the efficacy of performance appraisal systems.

IMPORTANCE OF THE STUDY

The study covers performance appraisal system followed in a garment manufacturing unit. The findings of the study would help the study unit to revisit its policy with regard to the performance appraisal of its employees. The findings of the study may also be useful to similar organizations working in similar set up. It would also add to the existing knowledge in the field of performance appraisal in management discipline.

OBJECTIVES

The objectives of the study are to understand the Performance Appraisal System (PAS) followed in the organization and to examine the strengths and weaknesses of existing Performance Appraisal and suggest modifications/measures if any.

METHODOLOGY

The present study is based on primary data collected on selected aspects of "Performance Appraisal System" from the employees of the garments unit selected for the study. The study is based on the secondary information available in the organization and interviews held with personnel in charge of performance appraisal in the organization. The unit selected for the present study is situated in Tirupur of Tamilnadu state which manufactures knit wear. This unit was purposely selected for the study because it has been in the garment industry since 1991 producing and exporting quality garments. The unit is medium in size and considered as representative of most units in Tirupur. At present it employs 350 workers of both gender (Male 224 and Female 126). The employees are grouped into four grades, viz., Grade A, Grade B, Grade C, Grade D. Grade A employees include Managers, Grade B employees includes Accountant and Human Resource Assistance, Grade C employees are Clerk and Junior Merchandiser and Grade D employees includes Tailor, Store Keeper and Store Helper. The field study was conducted during 2010. So, the data collected for the present study represent the conditions prevailed during the period.

RESULTS AND DISCUSSION

PERFORMACE APPRAISAL (PA) PRACTICES IN THE STUDY ORGANIZATION

The study organization evaluates the worker's performance each and every year. The objectives of Performance Appraisal are

- To help in the development of employee;
- To determine training and development needs;
- To review performance for the purpose of revising salary.

Following is the description of performance appraisal process followed in the organization.

a) Resource Planning and preparing documents/ records

ORGANIZATION LEVEL

- Brief evaluation of organization
- Synopsis of nature of business
- Vision statement
- Mission statement
- Locational strength
- Appraisal policies and process of the organization

PARTICIPANT LEVEL

- Profile of the participant
- Job description and major key result areas
- Educational qualification/ experience
- Salary structure
- Brief history of performance
- Strengths and weaknesses as evaluated by the company
- Team strength
- Group discussion with the participants

MANAGEMENT LEVEL

- Profile of Top management
- Functional responsibilities
- Synopsis on experience

b) Conducting one to one discussion with the participants related to their key result areas, their career plans and goals, attitude towards the company and its working etc.,

c) An employee information form is given to the participants in which they are asked to fill their present job profile, interest in other field also. They are asked to rate their own strengths and weaknesses.

d) Conducting written test on performance which is followed by Group Discussion / Presentation and Interview.

e) Discussing results with the management as well as participants.

The written test in performance appraisal in the study organization is basically designed with the following 4 groups.

Group A: This is divided into 2 parts related to job and work description and awareness on the organization and its products.

Group B: This is divided into 3 parts- first part relates to logical reasoning and mathematical ability. Second part is related to English language and general awareness. Third part is related to behavioural competency.

Group C: This comprises of questions related to stress management, role plays, team-building etc.

Group D: Presentation/ GD / Interview

The organization uses two techniques to evaluate the employee's performance, viz., Self review and Superior review

Self Review: The questionnaire administered (among the employees) provides for every employee to review his/her own strengths and weaknesses.

Superior Review: Superiors review the subordinates, directly based on their observations.

ANALYSIS OF PAS IN THE STUDY UNIT

In this section, the PAS followed by the organization of each grade employees is analysed in detail. The table provides details with regard to the techniques, purpose and result of PA relating to respective grades.

TABLE 1: PERFORMANCE APPRAISAL SYSTEM IN THE STUDY ORGANIZATION

Grade	Tools and Techniques	Purpose	Result
A	Grading Method Management by Objectives (MBO)	Evaluating the personnel's strength and weakness Setting individual Goal and Improving the individual performance	Strengths are known to the organization. Helps to reduce weakness by taking measures
B	Grading Method Critical Incident Method	Evaluating the personnel's strength and weakness Promotion, Training Increase the Salary	Identify Individual traits Career Development and Promotion become easier
C	Grading Method Confidential Report Method	Evaluating the personnel's strength and weakness Training, Increase the Salary	Improvement in 2007 appraisal as compared to 2006 appraisal
D	Grading Method Confidential Report Method	Evaluating the personnel's strength and weakness Training Increase the Salary	Improvement in 2010 appraisal as compared to 2009 appraisal

Grade A: For Grade A employees the techniques, grading method and MBO are used. The purpose is to evaluate individual strength and weakness and to create individual goals and improve individual performance. The purpose has, to some extent, served in the organization. It has helped to ascertain their employee's strengths and to take measures to reduce their weaknesses.

Grade B: Grading method and critical incident method are used. The purposes are reasonably served.

Grade C: Grading method and confidential report method are used. Improvements are found in 2010 PA as compared to 2009 performance appraisal.

Grade D: The same methods and same purpose and same results as in the case of Grade C are applicable to Grade D too.

PERFORMANCE APPRAISAL SYSTEM OF THE STUDY ORGANIZATION: A SUM UP OF EVALUATION

STRENGTHS

- ✓ Creating Individual goal by motivating the workers;
- ✓ Creating leadership quality;
- ✓ Training is provided to the superior to evaluate the performance of employee; and,
- ✓ Evaluating strengths and weaknesses of all the employees.

WEAKNESSES

- Evaluation procedure is not uniform across various groups of employees
- Appraising of the workers by the superior may go wrong some times due to subjectivity which may affect the employee's promotion and salary; and
- No proper orientation on performance appraisal to employees
- Most of the low grade workers do not understand and use of PAS to improve their performance

CONCLUSION

The study reveals through evaluation that there are certain strengths in the performance appraisal system in the study organization such as creating individual goal, leadership quality, training given to evaluators/ superiors and opportunity to analyze strengths and weaknesses. But there are certain weaknesses in the system like, no uniform evaluation, bias in appraisal by superiors and no proper orientation on PA to employees. Another weakness identified is with regard to tools and techniques used. The organization uses grading method to all grades, (A,B,C and D); Along with this, it adopts MBO to A Grade only, critical incident method to B grade only, and confidential report method to 'C' and 'D' grade. These weaknesses call for looking back into its PAS of the organization and taking initiatives of orientation to workers, bringing uniformity in evaluation and inclusion of more and advanced techniques like 360 Degree feedback and Assessment Center and Behaviorally Anchored Rating Scales (BARS in the PAS.

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THEORETICAL AUDIT FRAME WORK FOR MEASURING BRAND LOYALTY IN DAIRY INDUSTRY

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ABSTRACT

This research paper is focusing on audit framework on brand loyalty here the researcher uses three-dimensional way for measuring the brand loyalty in dairy industry. Normally the brand loyalty in measured in two-dimensional way ie behaviorally loyalty and attitudinal loyalty but at this juncture the researcher measured the brand loyalty in three-dimensional way which includes emotional and cognitive loyalty. Once we audit the brand loyalty in three-dimensional ways that will give strong support for the managerial proceedings such as framing the marketing strategies segment the market and appropriately match the marketing strategies with market segment.

KEYWORDS
behaviorally loyalty, attitudinal loyalty, juncture, audit framework, brand loyalty.

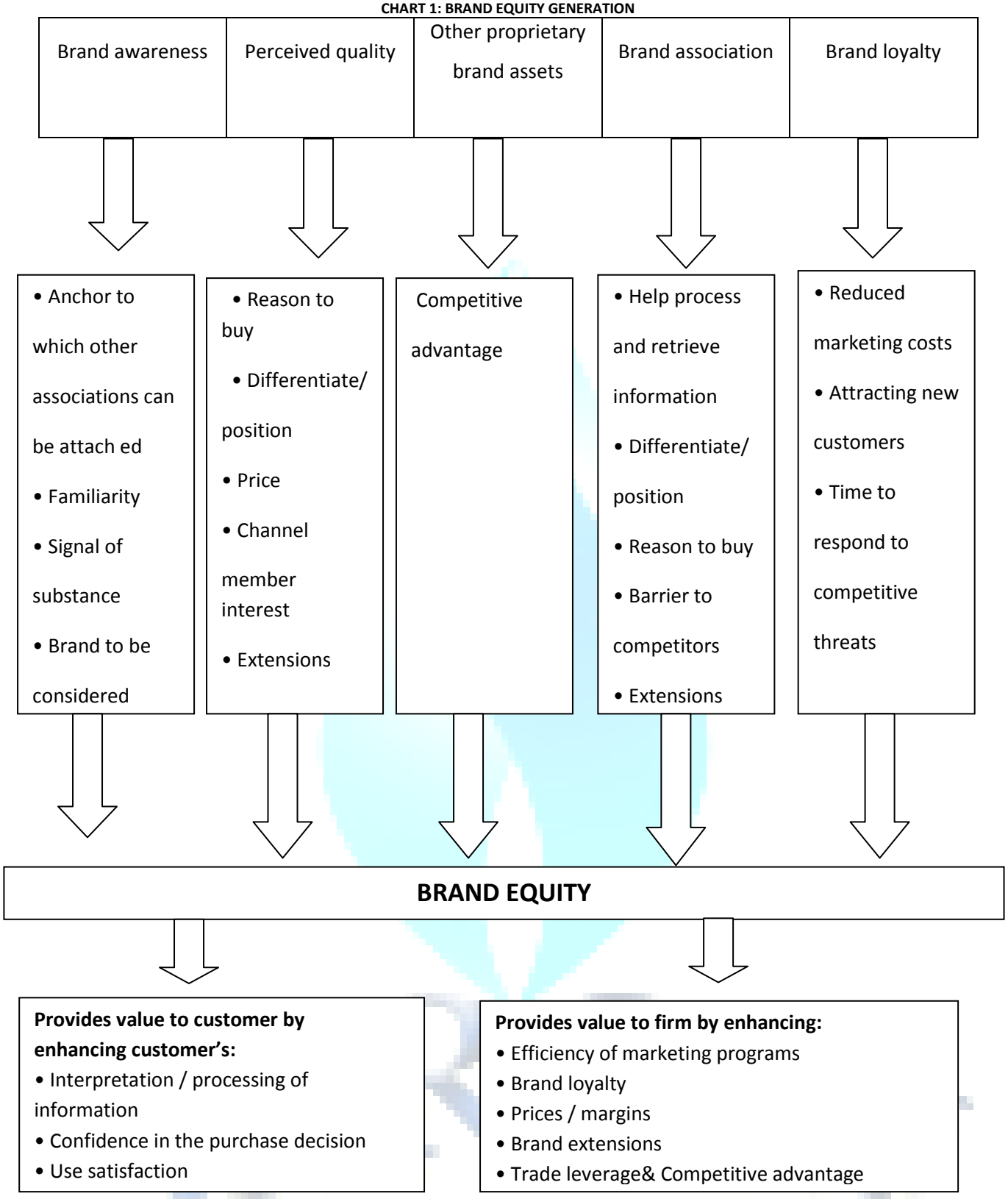
INTRODUCTION

Normally researchers done their brand loyalty audit research in single dimension and two-dimensional way(DeWitt et al, 2008; Bandyopadhyayand Martell, 2007; Rundle and Bennett, 2001). In two dimensional way, they divided brand loyalty into attitudinal brand loyalty and behavioral brand loyalty. When consumer psychologically commitment to one or two particular brand that is know as attitudinal brand loyalty while behavioural loyalty is concerned with the action of repurchase of same brand this result may be very useful in past days .But in the current scenario it may not support the company (mentioned in East et al (2005)). Hence we includes sub-components of attitudinal loyalty (emotional and cognitive loyalty) in this brand loyalty audit frame work. This model is an comprehensive version of Oliver's (1999) conceptual work by examining both cognitive and emotional loyalty as well as behavioural loyalty. This paper starts with an explanation of the three dimensional approach of brand loyalty audit, the proposition for an academic framework, and the managerial applications required to implement the matrix. In order to conclude this matrix is applied to the dairy industry for the industry richness.

BRAND LOYALTY

David Aaker suggest that brand loyalty is one of most important factor for brand equity which is most essential for the company profitability .Brand loyalty indicate how likely a customer will be to switch to another brand, especially when that brand makes a change, either in price or product features . David Aaker divided the brand equity element into perceived quality, brand associations, brand awareness, brand loyalty and other proprietary brand assets.
The below chart explain how brand equity generate value for an organization and customer. If there is any positive or negative impact on brand equity that will reflects in organization some or all assets and liabilities position. Customer-based brand equity is defined as the differential effect that brand knowledge has on consumer response to the brand in the market.

CHART 1: BRAND EQUITY GENERATION



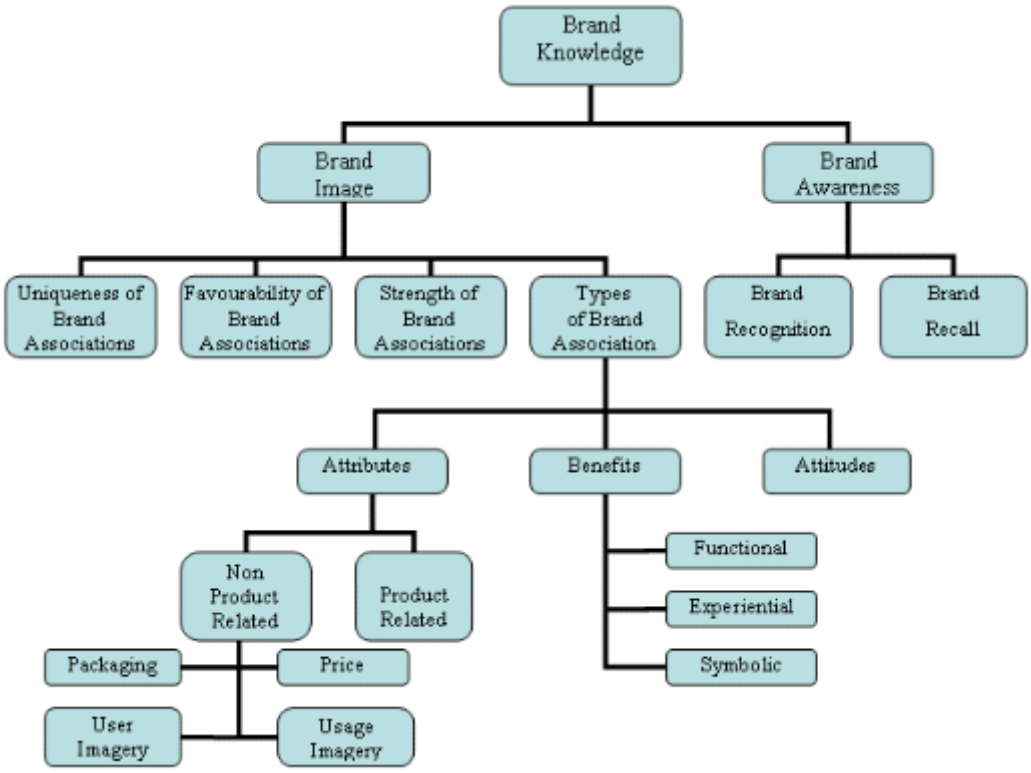
If customer have high commitment towards the product that leads to overall attachment to the product, brand, or organization(Oliver 1999) Brand 0r customer loyalty is a most important element in deciding long-term financial performance of firms (1995, Jones and Sasser,) and also it provides competitive advantage for the firm (Woodruff, 1997). Through brand Loyalty Company have the following benefit or advantages

- Generous opening hurdle to competitors,
- increase the firm's ability in facing competitors threats,
- better returns on their investment
- Reduced expenditure in advertisement ,
- less expenditure for attracting new customers, and
- enhanced organizational prosperity for long duration

For attaining the above benefit, In spite of escalating proliferation of brands in the market with proper quality, innovativeness in the product we have to strengthen our brand for getting loyal customer. It has been recommended that loyal customer is an oxymoron in today's market situation. Through theoretical study fifty percentage of consumer switchover to competitor's brand for price and value added thing in the product. (Presseyand Mathews, 1998)

Keller develop a model of brand equity with base of brand knowledge that is depicts in the Chart ; 2 This model includes brand awareness & brand image its come out of favorability, strength, uniqueness and types of brand associations held by the customer and brand recognition recall respectively. In this model, Keller also indicates various types of brand association and its benefits.

CHART 2



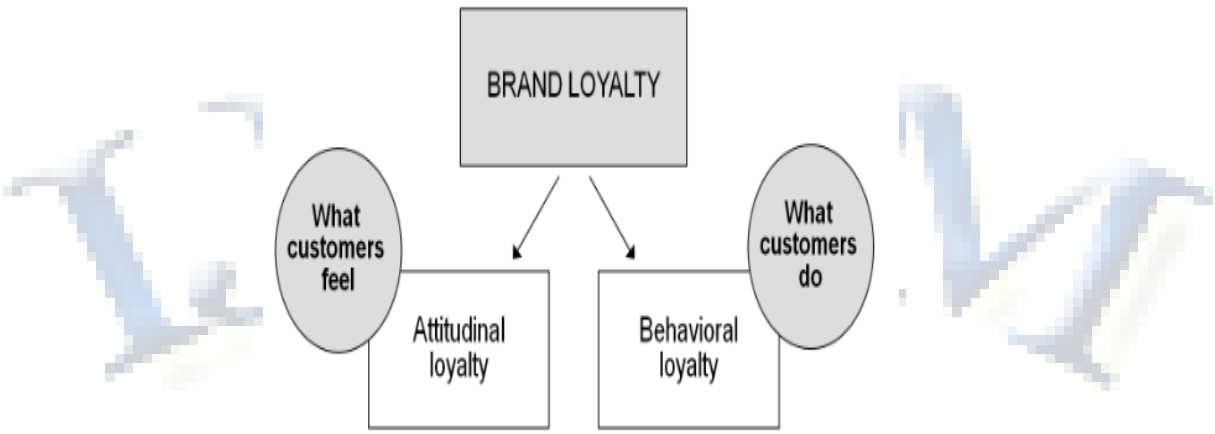
Source: Dimensions of Brand Knowledge Keller (1993)

THREE DIMENSIONAL BRAND EQUITY METRICS MATRIXES

Human actions or behavior is a assortment of one or more of three types of responses: emotive responses (I feel), cognitive responses (I think) and behavioral responses (I do). Brand loyalty is the collection of a consumer's thoughts and feelings about a brand that are expressed as an action (Härtel et al, 2008).

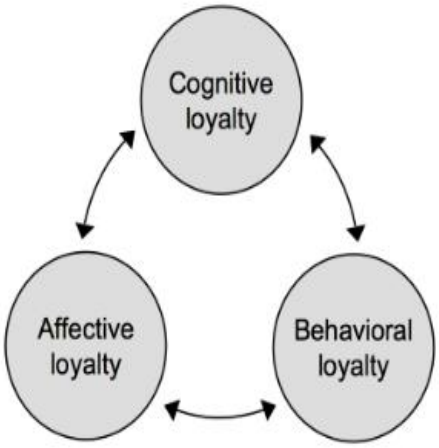
The below diagram explain the two dimensional and three dimensional model of brand loyalty According to Oliver (1999) view, cognitive loyalty is a loyalty based on information such as price and features. Härtelet al (2008) expanded this definition by defining cognitive loyalty as 'psychological preference for a brand consisting of positive beliefs and thoughts about purchasing a brand on the next purchase occasion.' Emotional loyalty is the degree ofpositive feelings aroused by repurchasing a brand (Oliver,1999). Härtel et al (2008) defined emotional loyalty as'affective commitment to a brand consisting of positive feelingsabout and attachment to purchasing a brand on the nextpurchase occasion.

FIG. 3



Source: Elements of a two dimensional definition of loyalty Adapted from Khan, 2009

FIG. 3



Source: A threedimensional approach to brand loyalty (Adapted from Worthington, Russell-Bennett and Hartel 2009)

Managers should be aware of all these three dimensions of brand equity metrics for the brand loyalty and how it assists in measuring the brand loyalty level . And also it give a strong support for manager in developing marketing strategies.

BRAND LOYALTYAUDIT IN THREE DIMENSIONAL WAYS

TNS international company for market research provides Conversion Model, In this model behavioural loyalty and psychological commitment are used to segment consumers into four groups based on usage. The eight segmentation plays a major in brand loyalty audit Jackson (2006)This is a important contribution to both theory and practice as there is a little evidence of academic or proprietary brand loyalty models that use emotional, behavioural and cognitive loyalty as the basis for segmentation. The final audit is showed in table 1.

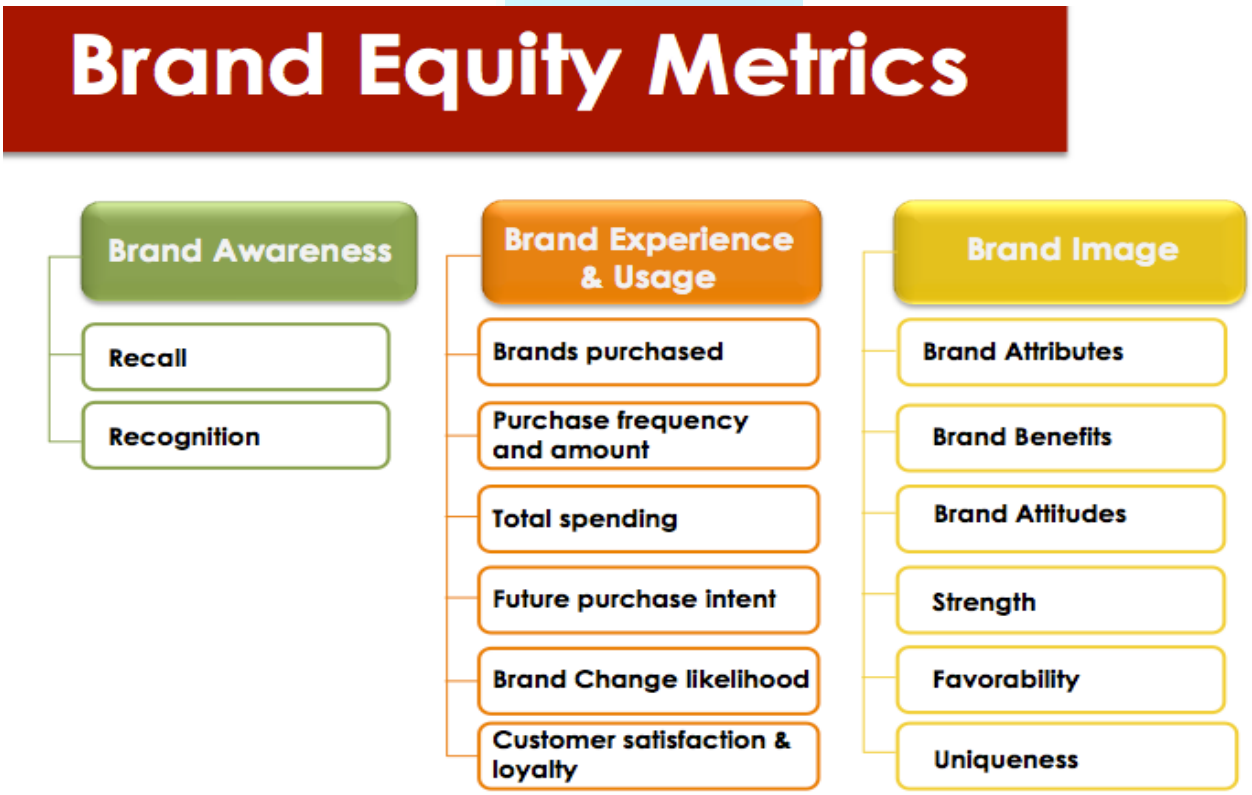


TABLE 1: BRAND LOYALTY AUDIT

Component	High behavioural loyalty	Low behavioural loyalty	High behavioural loyalty	Low behavioural loyalty
High coginitive loyalty	Stable loyals	Hot potential	Functional loyals	Cold potential
low coginitive loyalty	Passionate loyals	hopfuls	vulneraable	disloyal
	High emotional loyalty		low emotional loyalty	

Source: Worthington et al, 2010

For any organisation the main motto of marketing manager is to attain the brand loyalty for their product or service in the above three dimensions. Among the three Behavioural loyalty play a major role in generating brand loyalty.Hence irrespective of any organisation , they should give more important for the dimension that will give them competitive advantage

Behavioural loyalty play an vital role in brand loyalty but it is very tough work to achieve the

Behavioural loyalty among emotional and cognitive loyalty. So organization should give concentration on Behavioural aspects of consumer and gain competitive advantage and then frame their marketing strategies. Through the following steps we can measure the brand loyalty

In the first the marketing manager should understand the current loyalty levels for their brand after this segment the market and frame the marketing strategies appropriately to retain or develop the brand or customer loyalty the third step is to evaluate the marketing strategies success level if need or necessary modify it

STEP 1: FIND OUT CURRENT BRAND LOYALTY LEVELS

Through first step, find out Current Brand Loyalty Levels of the consumer in each categories ie emotional, cognitive and behavioural loyalty for a brand. Based on consumer brand awareness level , their experience towards the brand and their attitude towards the brand ie brand image we can identify the current Brand Loyalty Levels and framed the brand audit metric

STEP 2: SEGMENTATION AND FRAME MARKETING STRATEGIES

In this step company segment the market according they should make appropriate marketing strategies. For framing Marketing Strategies Company identify Which segment has low loyal consumer, high loyal consumer, potential for growth etc then only they can easily match the Marketing Strategies with the segment by this way the below 8 segment are derived.

Stable Loyals: Consumers who have high scores on all three dimensions of loyalty are called stable loyals. This is also similar to 'True loyals' (Dick and Basu, 1994). These consumers like your brand, have evaluated your brand positively and buy your brand regularly over other brands (Dick and Basu, 1994;Rauyruen and Miller, 2007). Organization need to focus on retaining 'Stable loyals' and develop proper reward programmesto thank consumers for their loyalty. Recent research showsthat more than 75 percent of the consumers will consult a friend before deciding on the purchase of a certain product So it has become evident that large organisations are beginning to appreciate the importance of word-of-mouth marketing. So definitely stable loyals are likely to engage inpositive word-of-mouth marketing for the brand and act asbrand advocates.

Passionate Loyals: These consumers have high behaviouralloyalty and high emotional loyalty but have low cognitiveloyalty. These products are likely to be purchased for enjoyment or entertainment (movies, sports), where the value derived isemotional in nature (Holbrok, 2006). These consumers have automated their purchase and unlikely want to engage in thinking, so marketing programmes need to minimize effort.Strategies that remain with minimum effort and offer emotionalappeal are likely to retain the consumer.

Hot Potentials: Consumers with high emotional loyaltyand high cognitive loyalty but with low behavioural loyaltyare the 'hot potentials.' These consumers like your brand,have evaluated your brand positively but do not buy yourbrand either at all, or regularly. So marketing managers have to understand the requirements of these consumers andalso find the reasons behind this. Uncles et al (2003)mentioned that there may be situational factors, social norms, consumer characteristics or aspects of the marketingprogramme that are preventing the consumer from buying the brand.

Hopefuls: These consumers like your brand, but they do not buy it and do not have positive thoughts about being loyal.These consumers have less buying power or less access to the product and thus may not be a profitable segment(Bandyopadhyay and Martell, 2007). It is quite possible that these consumers may have wrong information or misperceptions about the organisation, its product and features. Strategies for this segment could be low-cost to the organisation but might appeal to the senses or be available for purchase.

Vulnerables: These consumers buy the product but they do not have any emotional attachment to it and may not intend to repurchase the product. According to Dick and Basu (1994), these consumers exhibit 'spurious' loyalty, where people are loyal on the basis of inertia, leaving them open to a better competitive offer. Marketing managers should improve the low emotional and low cognitive loyalty of Vulnerable.

Functional Loyals: These consumers have low emotional loyalty. So these consumers buy the brand regularly and engage in decision-making about the brand; however, they have no emotional attachment to being brand loyal. Strategies to retain these consumers involve offering value-added Promotions That Have Rational Appeal Such As Newsletters.

Cold Potentials: These consumers have a high opinion on your brand; but they have no emotional attachment and do not purchase the brand.

Disloyals: These consumers do not have any kind of loyalty in any dimension. Marketing managers should give them very low priority.

CURRENT SCENARIO OF DAIRY INDUSTRY

In India, the dairy sector plays an important role in the country's socio-economic development, and constitutes an important segment of the rural economy. Dairy industry provides livelihood to millions of homes in villages, ensuring supply of quality milk and milk products to people in both urban and rural areas. With a view to keeping pace with the country's increasing demand for milk and milk products, the industry has been growing rapidly.

According to our research report **"Indian Dairy Industry Analysis"**, India is the world's largest milk producer, accounting for around 17% of the global milk production. Besides, it is one of the largest producers as well as consumers of dairy products. Due to their rich nutritional qualities, the consumption of dairy products has been growing exponentially in the country, and considering such facts and figures, our study anticipates that the milk production in India will grow at a CAGR of around 4% during 2011-2015.With the rising use of dairy products, the secondary market for dairy products has also been flourishing, our report observed. For this, we have included the analysis of secondary market for dairy products, including tea, coffee, infant nutrition, malted foods, and bakery products. Covering the necessary aspects of the Indian dairy industry, the study facilitates knowledge about its current market scenario and future growth.Analyzing the past and current state of the industry, the report tries to find out how trends like the entry of international companies and safe packaging are attracting more consumers and leading to further growth in the market. This way, it presents a clear picture of the direction, in which the industry is likely to proceed in the coming years.The government is taking several initiatives and running plans and programs like National Diary Plan and Intensive Dairy Development Program to meet the growing demand for milk in the country. Our report talks about such schemes, and government regulations to present an objective and balanced picture of the industry. The study also discusses the opportunities and strengths of the dairy market in a complete SWOT analysis, and provides an insight into the competitive landscape. We hope that our comprehensive research will help clients align their business strategies as per market dynamics, and make sound investment decisions.

APPLICATION OF THE MODEL IN DAIRY INDUSTRY

Now- a - day's dairy companies have started to make use of various marketing methods and strategies in an extreme competitive situation where product differentiation is very harder in this industry. Due to consumer consciousness towards health dairy company have to concentrate on value added process become necessary at present. In order to meet the consumer expectation dairy companies have to determines the suitable marketing strategies and provide the products with more benefit at reasonable price .it is clear that in addition to more benefit at reasonable price, value added product like ice-cream, sugar free ice-cream for diabetics patients, beverage, special category milk such as UHT milk, buttermilk, ghee, sweets like palkhova etc these are some more influential elements in creating customer loyalty.

Through first step, find out Current Brand Loyalty Levels of the consumer in each categories ie emotional, cognitive and behavioral loyalty for a brand next to this step company segment the market according they should make appropriate marketing strategies. For framing Marketing Strategies Company identify Which segment has low loyal consumer, high loyal consumer, potential for growth etc then only they can easily match the Marketing Strategies with the segment by this way the below 8 segment are derived :

TABLE 2: HYPOTHETICAL BRAND LOYALTY AUDIT

Component	High behavioural loyalty	Low behavioural loyalty	High behavioural loyalty	Low behavioural loyalty
High cognitive loyalty	**Stable loyals** Consumer feel positive about the brand and believe it as a good choice and prefer to use it	**Hot potential** Consumer feel positive about the brand and believe it as a good choice but use other brand while purchasing	**Functional loyals** Consumer gain functional benefit and do not seek emotional value	**Cold potential** Consumer understand the benefit using the brand but do not gain emotional value and use other brand
low cognitive loyalty	**Passionate loyals** Consumer gain emotional benefit from using the brand but they may not aware of the functional benefit	**Hopfuls** Consumer feel positive about the brand but they may not be aware of functional benefit and use other brand	**Vulneraable** Consumer use this brand habitually and but they not emotional commitment	**Disloyal** These consumer one time user of the brand and currently they are not using the brand
	High emotional loyalty		**low emotional loyalty**	

Source: Worthington et al, 2010

Using the data in table 2, the segments of hopefuls, hot and cold potentials have been picked up and identified as having high growth potential. But these segments of consumers do not currently use the organisation's brand as their first choice. On the other hand, vulnerables is the largest segment and isdeemed to be most at risk. Any loss in this segment would adversely affect profitability.Marketing managers can convert hot potentials into stable loyals by offering them value-for-money services. They can offer extra discounts and other earn-a-mile programme. Hopefuls' segment consumers feel positive about using the brand but are not aware of the functional benefits, and use other brands when purchasing. As this segment is already emotionally committed to being loyal, the proactive approach can be leveraged to encourage behavioural loyalty. It is also important to understand for marketing managers that they should not invest too much in this segment. The cold potentials understand the benefits of using thebrand but do not gain any emotional value from loyalty,and use other brands. So they are showing low emotionalloyalty. This is the second largest segment, so propermarketing strategy can attract them to become stable loyalsto the brand.The vulnerables segment has both low emotional and lowcognitive loyalty. So marketing managers should handle theseconsumers with different strategy.Cognitive loyalty could be addressed by informing theconsumers of the existence and value of the brand. Emotionalloyalty could be increased by offering them bonus services aswell as offering free gifts for the whole family.The segmentation is totally based on company's objectives,the resources available and attractiveness and size. In the aboveexample, it is assumed that the company is growth-oriented.So the target segments will be hot potentials, hopefuls andcold potentials.

STEP 3: EVALUATE STRATEGIES

The final and most important step is to evaluate the strategy.So each and every segment is formed and proper strategy shouldbe applied. If any problem arises, the modification of strategy is required.

CONCLUSION

Through this theoretical paper brand loyalty is prolonged into three dimensions i.e. cognitive, emotional and behavioural loyalty. These three dimensions are further divided into eight segments with respect to segment size and growth potential, attractiveness, and company objectives and resources (Kotleret al, 2007). This hypothetical model will assist academics to

do the research on the inter-relationship between the three core dimensions of loyalty. From a managerial point of view, this model also offers a proper marketing methodology that allows managers to identify loyal consumers and divide them into segments with respect to their loyalty levels. This willalso be helpful for marketing managers to adopt different marketing strategy for different segments. With the help of this strategy, they can improve the loyalty levels of the consumers which will improve the organizational profitability (Delgado-Ballester and Munuera-Aleman, 2001; Rowley 2005).

This brand loyalty model can also be used for:

1. An analysis of competitors' customers could be conducted and the results presented in the audit could be comparing with that. This will provide a gap analysis and with the help of this, we can find the weakness of the competitors which will help to increase the brand loyalty of the organization.
2. Multiple brands within a product line or different SBUs within an organization could be presented in the audit to allow relative comparisons, strengths and weaknesses to be identified.
3. This audit can be useful to the organization that offers new products/ brands which will help to understand the feedback of the consumers.

This brand loyalty framework has some limitations which do raise opportunities for future research. First, this model is not yet checked and it requires validation across different products and industry. Future research is required to empirically search how different organizations would use the audit and the implication of its findings. Strategy formulation step can be varied in different organisations. So proper modification of strategy is required. Marketing managers should check all the segments and according to that strategy should be formulated.

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EFFECTIVENESS OF TRAINING & DEVELOPMENT PROGRAM IN PHARMACEUTICAL SECTOR WITH A CASE STUDY ON DIFFERENT INDUSTRIES

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ABSTRACT

The role of training in human resource management practice has spur renewed and vigorous debate about the need for training and development. The debate has led academics and management to ponder on some issues germane to the benefits or otherwise of training. One school of thought argues that training leads to an increase in turnover while the other states that training is a tool to that can lead to higher levels of employee retention. So every modern management has to develop the organization through human resource development. Organization and individual should develop and progress simultaneously for their survival and attainment of mutual goals. Is training an investment in people or cost? If training is required, what are the criterion used to determine who should be trained and when to train? These questions have permeated management circle and those in HRM department. Recent years have seen training terms renamed as training and development or learning and development, a sign of the spate of debate on the issue. This prefer claims at examining how the Training & Development policy is being implemented in Pharmaceutical sector and determine what challenges are being faced in implementing the Training & Development program. The main objective of this paper is to analyse an effectiveness of Training & Development program in pharmaceutical sector. This study will recommend the need of ensuring the total implementation of its training and development policy to enhance the job skills of the staff for improved performance.

KEYWORDS
Training, Development, Effectiveness, Employee retention, Learning.

INTRODUCTION

Human Resource Management is a management function that helps an organization select, recruit, train and develops. It comprises of the functions and principles that are applied to retaining, training, developing, and compensating the employees in organization. The divisions included in HRM are Recruitment, Payroll, Performance Management, Training and Development, Retention, Industrial Relation, etc. Out of all these divisions, one such important division is training and development. Training and Development is a subsystem of an organization. It is concerned with improving the existing skills and exploring the potential skills of the individual i.e. upgrading the employees' skills and extending their knowledge. Therefore, training is a key to optimizing utilization human intellectual technological and entrepreneurial skills. Developing the employee capabilities so that they may be able to discover their potential and exploit them to full their own and organizational development purpose. Developing an organizational culture where superior subordinate relationship, team work, and collaboration among different sub units are strong and contribute to organizational wealth, dynamism and pride to the employees, development defined. It helps the individual handle future responsibilities, with less emphasis on present job duties.

RELEVANCE OF TRAINING & DEVELOPMENT

Training & Development helps in optimizing of human resource that further helps the employee to achieve the organizational goals as well as their individual goals. It helps to provide an opportunity & broad structure for the development of human resources technical & behavioural skills in an organization. It also helps the employees in attaining personal growth. Development of skills of employees: Training & Development helps in increasing the job knowledge & skills of employees at each level. It helps to expand the horizons of human intellect & an overall personality of the employees. This program helps in increasing the productivity of the employees that helps the organization further to achieve its long-term goal. It helps to develop & improve the organizational health culture & effectiveness. It helps in creating the learning culture within the organization. It is very important for building the positive perception & feeling about the organization. The employees get these feelings from leaders, subordinates & peers. It is helpful in improving the health & safety of the organization thus preventing obsolescence. Morale of employee and managers also increase by providing the training & development in industry. Training & Development leads to improved profitability & more positive attitudes towards profit orientation. It aids in organizational development i.e. organization gets more effective decision making & problem solving. It helps in understanding & carrying out organizational policies.

Training & Development also increase the leadership skills, motivation, loyalty, better attitudes & other aspects that successful workers & managers usually display. It increases the job knowledge & skills of employees at each level. It helps to expand the horizons of human intellect & an overall personality of the employees. Training & Development helps in creating a better corporate image.

TRAINING Vs. DEVELOPMENT

Training often has been referred to as teaching specific skills and behaviour. The skills are almost always behavioural as distinct from conceptual or intellectual. Development, in contrast, is considered to be more general than training and more oriented towards individual needs in addition to organizational needs and it is most often aimed toward management people. Usually the intent of development is to provide knowledge and understanding that will enable people to carry out non technical organizational functions more effectively, such as problem solving, decision making and relating to people.

DISTINCTIONS

TABLE 1

• Basic	Training	Development
• Who	Non-managers	Managers
• What	Technical-Mechanical Operations	Theoretical-Conceptual ideas
• Why	Specific job related information	General knowledge
• When	Short Term	Long Term

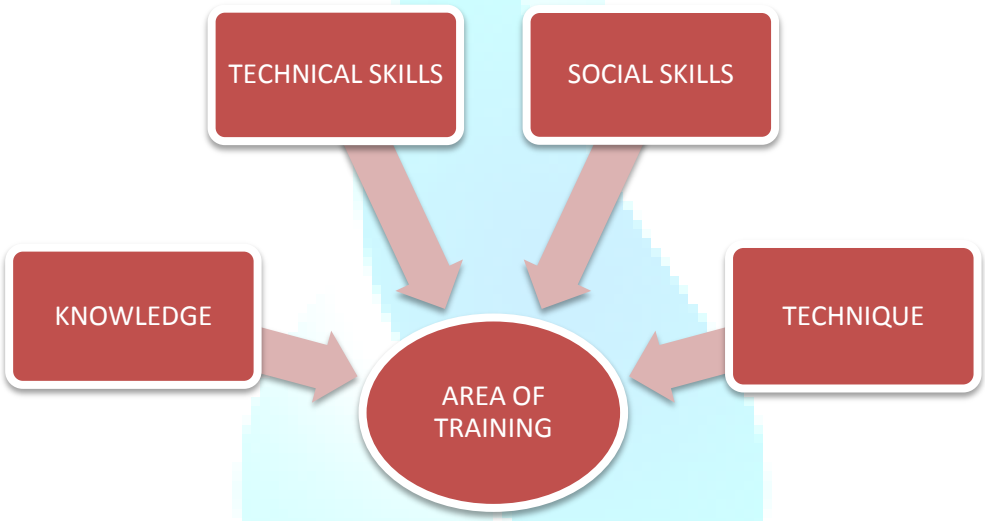
Source: Author

Training is meant for operatives and development is meant for managers. Training tries to improve a specific skill relating to a job whereas development aims at improving the total personality of an individual. Training is a one-shot deal, whereas development is an ongoing and continuous process. The scope of training is on individual employees, whereas the scope of development is on entire work group or organization. Training is mostly the result of initiatives taken by management; it is the result of some outside motivation. Development is mostly the result of internal motivation.

Training seeks to meet the current requirements of the job and the individual; whereas development aims at meeting the future needs of the job and the individual. In other words we can say that, training is a reactive process whereas development is a proactive process. Development is future oriented training, focusing on the personal growth of the employees.

FOCUSING AREAS IN TRAINING & DEVELOPMENT

FIG. 1



Source: Author

The areas in which there is a need to focus under the training & development programs are basically enhancement of technical skill, social skills, knowledge of the employees and techniques used for providing T&D.

Area of training provide in the knowledge area is that trainee learns about a set rules and regulations about the job, the staff and the products or services offered by the company. The aim is to make the new employee fully aware of what goes inside and outside the company.

The technical skill is helpful for the employee to teach a specific skill (e.g. operating a machine, handling computer etc.) so that he can acquire that skill and contribute meaningfully. In social skill employee is made to learn about him and other, develop a right mental attitude towards the job, colleagues and the company. The principal focus is on teaching the employee how to be a team member and get ahead. Technique involves the application of knowledge and skill to various on-the –job situations.

In addition to improving the skills and knowledge of employees, training aims at molding employee attitudes: when administered properly.

WHY EFFECTIVENESS OF TRAINING & DEVELOPMENT NEEDS TO BE CHECKED?

Improving business performance is a journey, not a destination. Business performance rises and falls with the ebb and flow of human performances. HR professionals lead the search for ways to enhance the effectiveness of employees in their jobs today and prepare them for tomorrow. Over the years, training programmed has grown into corporate with these goals in mind. Training & Development programmes should enhance performance and enrich the contributions of the workforce. In India, training as an activity has been going on as a distinct field with its own roles, structures and budgets, but it is still young. Training has made significant contributions to development of all kinds. Training is essential; doubts arise over its contribution in practice. Training is neither a panacea for all ills nor is it a waste of time. What is required is an insight into what training can or cannot do and skill in designing and carrying out training effectively and economically. Much of the training provided today proceeds as if knowledge and action were directly related. This assumption is itself a striking illustration of the wide gulf that separates the two. On a continuum with personal maturation and growth at one end and improvement in performance of predetermined tasks at the other, education lies near the former, and training near the later. Focusing training on skill in action makes the task wide and complex. Training embraces an understanding of the complex processes by which various factors that make up a situation interact. For every training strategy, no matter which, the proper focus right from the very outset is on one or more people – on-the-job-in-the-organization – this whole amalgam. Wherever the focus moves during the training & development programme, the starting point becomes the focus again at the end. The difference lies in what people have learned that they now apply. That difference, in terms of more effective behaviour is the measure of the efficacy of training.

TREND OF T&D IN PHARMACY SECTOR

With the changing time and even fast changing technologies Indian companies have started realizing the importance of corporate training. As the companies are setting up their branches all over the world, becoming multinational corporations they need trained employees who can raise the profits. Today, training is considered as a tool for employee retention. The cost incurred on training an individual in a company is recovered if the employee improves his skills after the training is imparted and the productivity is raised. Training has now become important in every field be it Sales, Marketing, Human Resource Logistics,Engineering,Production and Manufacturing, Inventory Management etc.Indian companies fulfil their requirement of skilled workforce by providing on-the-job trainings and other internal educational programs which are designed to quickly improve the expertise of new recruits. It is now a business effective tool and is linked with the business outcome.

Intensifying business performance is an expedition, not a destination. The success of business operations depends upon the ups and downs of the employee performances. Hence the HR managers started looking for the methods to boost the performance and efficiency of its workforce to carry out the work today and to train them for meeting tomorrow's goal. Training programmes had developed many years back, but now-a-days, it became a crucial factor in companies with certain objectives in mind. Training and development practices should boost up performance and develop the skills, knowledge and expertise of the employees. The vital objective of training is to build up right ability and capability in the labour.

On the other hand, in many organizations training is regarded as non-essential or a need based activity. Some organizations start a training department in order to look modern. In fact, some organizations are headed by unwanted employees rather than employees of outstanding merit. While some organizations do not have a separate budget to hire highly qualified trainers for training and development.

In pharmaceutical sector, there is huge growth since few years and large numbers of generic products have been launched in the market. Due to this growth, a need for training in this sector has also increased. The most important areas now-a-days in the pharmaceutical sector where training is required are Brand Management, Contamination control, Drug verification, Supply chain visibility, Recall Management and Shrinkage Reduction. And the preferred training methods are Web based training, class room training, Workshops and on-the-job training.

CASE STUDY

In order to find out the effectiveness of Training & Development program in the pharmaceutical sector, the employees of a different company have been taken as a sample for the analysis. It analysed on sample size of 100 employees working at different levels have been considered on various issues like what are the expectations of associates from the management during the training, what kind of problems were faced by the associates in training process etc.

The data used for conducting the research has been collected through questionnaire as well as through direct discussion with the employees. Also various data related to company policies was available on training program to study and analyse about the effectiveness. So, the research design used in this study was Exploratory as well as Descriptive. Experience surveys were conducted with Assistant-Manager Human Resources and the General Manager and Personnel Officer of the different company to gain knowledge about the nature of Training and development process followed in the organization. After carrying out initial Exploratory studies to bring clarity on the subject under study, Descriptive study was carried out to know the actual Training and Development method being followed at different company because the knowledge of actual training and development process was needed to document the process and suggest improvements in the current system to make it more effective.

DIMENSIONS OF TRAINING PROCESS IN COMPANIES

The training process at different company has various dimensions, firstly to analyze the skills of the employees, the skill matrix is prepared which is filled by the concerned departmental head then training needs are identified by analyzing skill matrix. Annual plan is drafted for conducting the training in this Target setting is done i.e. how many employees are going too covered under the training programme and budget is allocated.

Final plan is drafted for conducting the training on the basic of final plan annual training calendar is prepared, it is divided into monthly training calendar. Many companies do the monthly nomination of the participants, arrangement of venue training handouts, training aids and refreshments. Record of participants' attendance is maintained on the training day training faculty feedback and training feedback is taken. Monthly performance reports are maintained to check how much target is achieved and at the end finally evaluation of the training action plan is done.

THE TARGET

- Continuous skill enhancement.
- Zero defect on account of skill deficiency.
- Zero downtime due to skill deficiency.
- Zero accident due to human error.
- Energized, Involved & Motivated employees.

TRAINING METHODOLOGY OF PHARMACEUTICAL SECTOR

Training methodology is used for providing the different training to the different level employee according to their capability. It is provided to the new and existing employee. New employee training provides the induction and orientation for new joiners in any cadre and in any grade, SOP and GMP training is for junior management cadre and senior management cadre and need based training is provided to the JM/SM is based on the inputs from there confirmation appraisal at the end of the probation period. Planned and Unplanned training is provided for the existing employees. Planned training is based on the annual training plan and unplanned training refers to the trainings that are not identified through annual training.

ANALYSIS OF THE STUDY

It has analysed after the research on Effectiveness of Employee Training and Development of many company in pharmaceutical sector that 90% employee agree that training and development improve the efficiency, knowledge and communication. Training and development related study material is given before training it has agreed by 77% employees. It has analysis 84% employee say that internal trainers are effective in pharmaceutical sector.

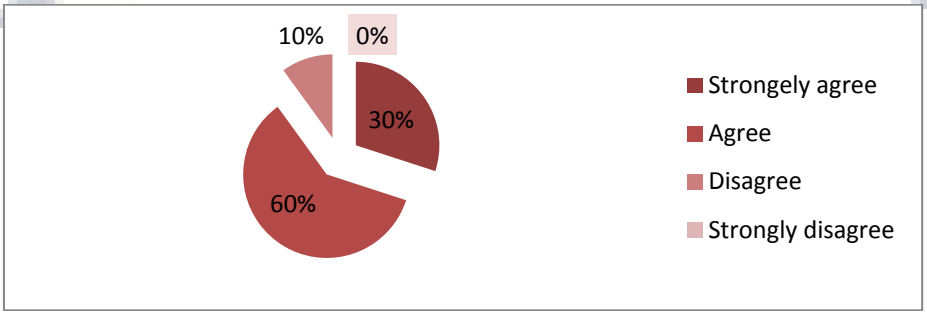
Many company provide the different training method but 56% employee agree that company provide the lecture and video method.93% employees like to attend the Training and Development program out of 100 employees 52% say that its main objective is helps to trained the workers.10% employee say that is provided for increasing the goodwill. After the survey it has analysed that all the employee have positive attitude regarding training & development program.

STATEMENT 1: TRAINING & DEVELOPMENT PROGRAM IMPROVE EFFICIENCY

TABLE 2

Opinion of the respondents	No. of respondents	Percentage
Strongly agree	30	30%
Agree	60	60%
Disagree	10	10%
Strongly disagree	0	0%
TOTAL	100	100%

FIG. 2



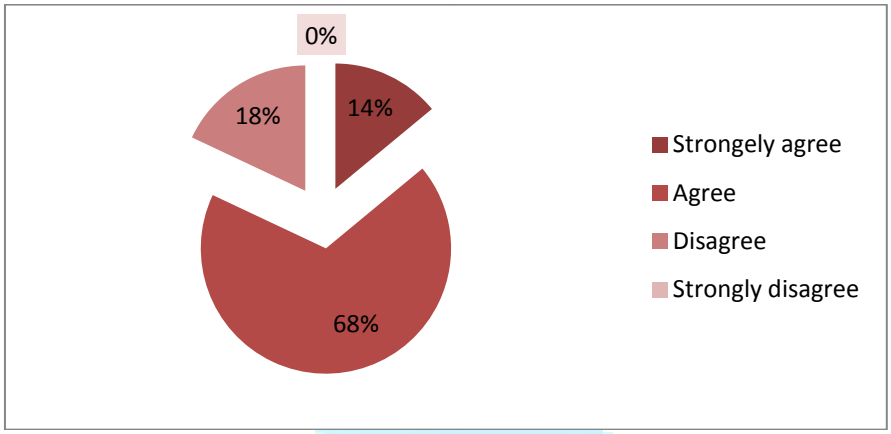
Inference: Almost 90% of the employees strongly agree that Training & Development program improve efficiency.10% of the employees disagree that Training & Development program improve efficiency.

STATEMENT 2: TRAINING & DEVELOPMENT PROGRAM IMPROVE COMMUNICATION

TABLE 3

Opinion of the respondents	No. of respondents	Percentage
Strongly agree	14	14%
Agree	68	68%
Disagree	18	18%
Strongly disagree	0	0%
TOTAL	100	100%

FIG. 3



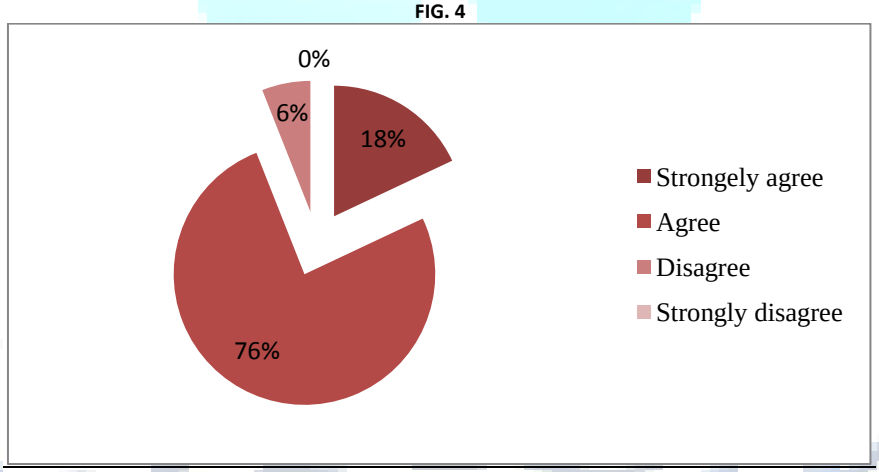
Inference: Almost 82% employees strongly agree that Training & Development program improve communication. and 18% disagree with this statement.

STATEMENT 3: TRAINING & DEVELOPMENT PROGRAM IMPROVE KNOWLEDGE

TABLE 4

Opinion of the respondents	No. of respondents	Percentage
Strongly agree	18	18%
Agree	76	76%
Disagree	6	6%
Strongly disagree	0	0%
TOTAL	100	100%

FIG. 4



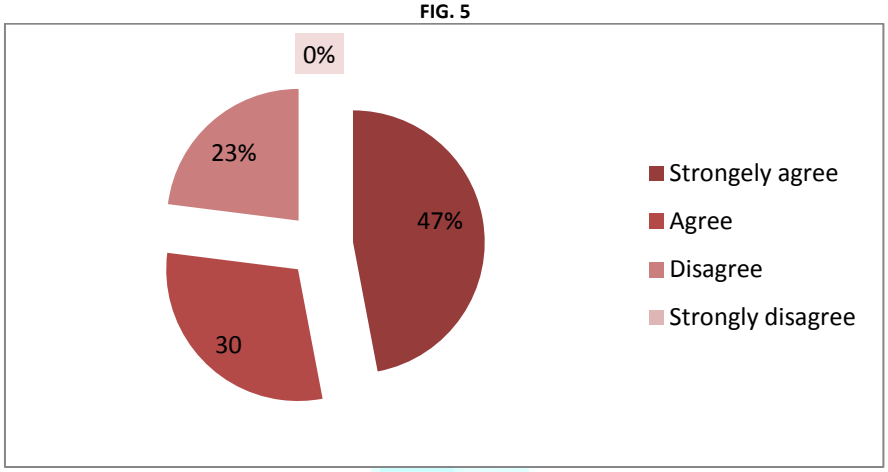
Inference: 96% of the employees strongly agree and 6% of the employees disagree that Training & Development program improve knowledge.

STATEMENT 4: THE TRAINEE RECEIVES THE STUDY MATERIAL BEFORE TRAINING

TABLE 5

Opinion of the respondents	No. of respondents	Percentage
Strongly agree	47	47%
Agree	30	30%
Disagree	23	23%
Strongly disagree	0	0%
TOTAL	100	100%

FIG. 5



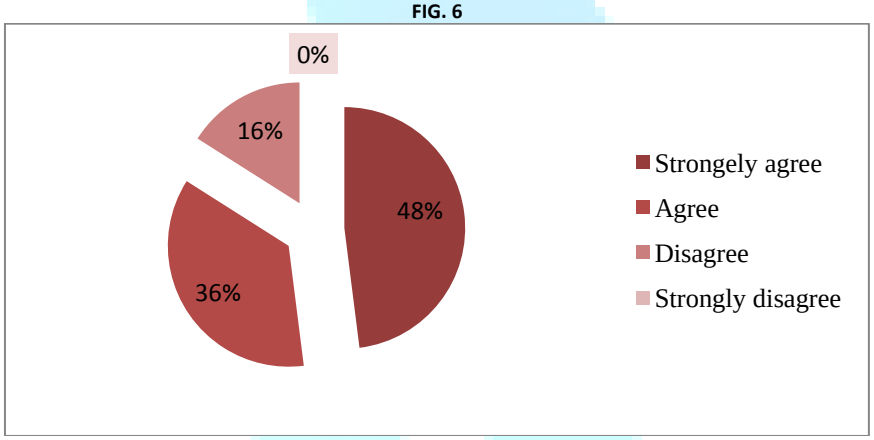
Inference: Almost 77% of the employees strongly agree that study material is given before training 23% of the employees disagree with this statement.

STATEMENT 5: INTERNAL TRAINERS ARE EFFECTIVE TO INCREASE THE KNOWLEDGE AND SKILLS

TABLE 6

Opinion of the respondents	No. of respondents	Percentage
Strongly agree	48	48%
Agree	36	36%
Disagree	16	16%
Strongly disagree	0	0%
TOTAL	100	100%

FIG. 6



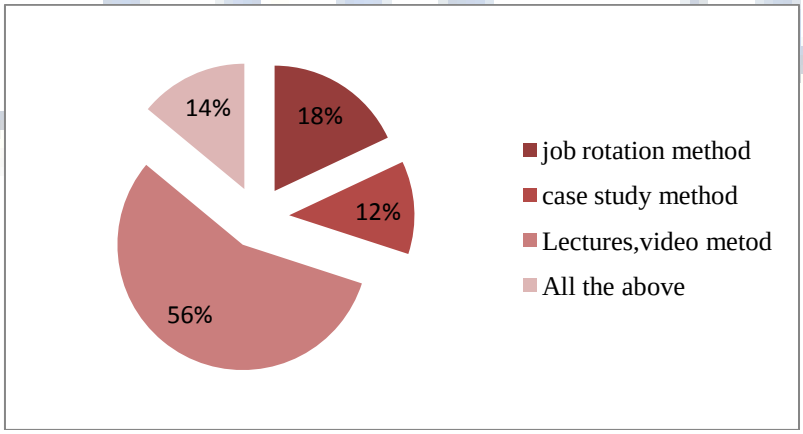
Inference: 84% of the employees strongly agree and 16%of the employees disagree that internal trainers are very effective to increase the knowledge and skill.

STATEMENT 6: DIFFERENT TRAINING METHODS USED BY PHARMACEUTICAL COMPANIES AND THE MOST EFFECTIVE

TABLE 7

Opinion of the respondents	No. of respondents	Percentage
Job rotation method	18	18%
Case study method	12	12%
Lectures, video method	56	56%
All the above	14	14%
TOTAL	100	100%

FIG.7



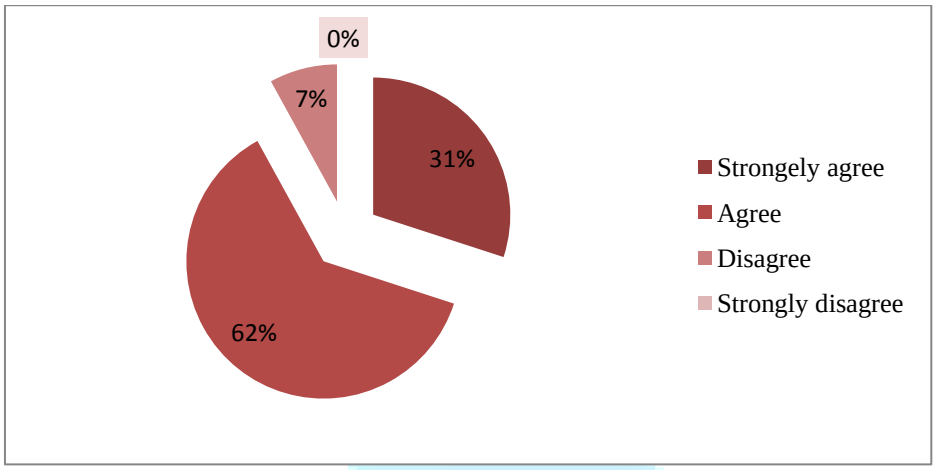
Inference: From above the table 18% of the employees feel that company use the job rotation method and 12% of the employees feel that company use the case study method and 56% of the employees feel that company use the lecture and video method.

STATEMENT 7: EMPLOYEE LIKES TO ATTEND THE TRAINING & DEVELOPMENT PROGRAM

TABLE 8

Opinion of the respondents	No. of respondents	Percentage
Strongly agree	31	31%
Agree	62	62%
Disagree	8	8%
Strongly disagree	0	0%
TOTAL	100	100%

FIG. 8



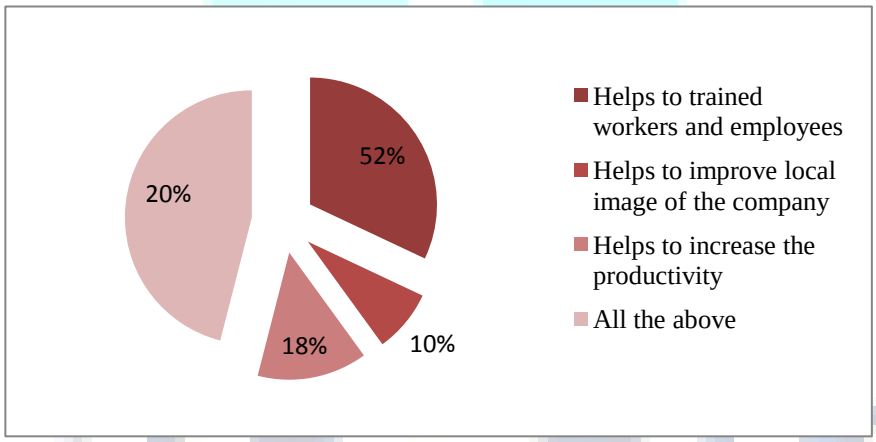
Inference: 93% of the employees strongly agree and 7% of the employees disagree that they like to attend the Training & Development program.

STATEMENT 8: THE LEVEL OF ACCEPTANCE TOWARDS OBJECTIVES OF TRAINING AND DEVELOPMENT PROGRAM

TABLE 9

Opinion of the respondents	No. of respondents	Percentage
Helps to trained workers and employees.	52	52%
Helps to improve local image of the company	10	10%
Helps to increase the productivity.	18	18%
All of the above.	20	20%
TOTAL	100	100%

FIG. 9



Inference: 52% of the employees feel that its main objective is helps to trained workers and employee and 18% of the employees feel that its main objective is helps to increase the productivity and 20% of the employee agree that all the objective of the company behind the Training & Development program.

CONCLUSION

Analysis of all the facts & figures, the observations and the experience during the training period gives a very positive conclusion about Effectiveness and Resources. Training & Development Programme which is conducted by the company is so important and useful for personal life as well as for company also. The result showed that, the more training given to employees, the more committed they will be to the organisation. There is a need for management to acknowledge and openly accept that training is one of the commitment-based strategies that can be utilised to enhance organisational performance. Workers and employees are satisfied with the training & development programme.

They don't want to change the current training method. Training & Development Programme is provided at the requirement of the employee in the pharmacy sector. From the study conducted on its effectiveness, most of the employees are satisfied with the training & development activities, but still there is a scope for improvement in it.So, effective training program can lead to greater employee commitment and a more stable workforce and in the current world of industry, training and development has been identified as a strategic tool for competitive positioning.

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SELFISH NODE HANDLING IN THE CONTEXT OF REPLICA ALLOCATION IN MANET'S

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ABSTRACT

In a Mobile Adhoc Network (MANET), the mobility and resource constraints of mobile nodes may lead to network partitioning and performance degradation. All mobile nodes should participate fully by sharing memory space to increase data accessibility. But, some of the nodes can act as selfish nodes, only for partial participation or fully selfish with other nodes. Such selfish nodes are handled in replica allocation.

KEYWORDS
Selfish node, SCF-Tree, mobile adhoc network.

1. INTRODUCTION

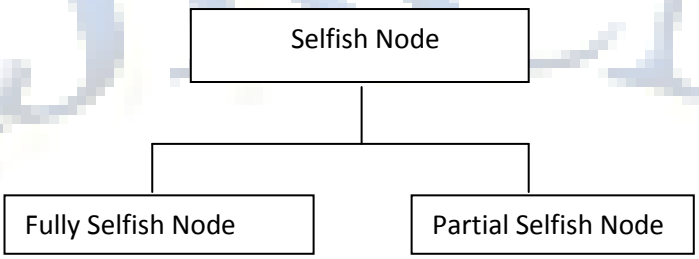
A Mobile Adhoc Network is a collection of autonomous wireless devices that move unpredictably, forms a temporary network without any fixed backbone infrastructure. In these networks each node acts as an end system and a router. These nodes are capable of both single hop & multi hop communication. In MANET, the nodes are moving frequently. This lead to frequent network partitioning, causing some data to be often inaccessible to some of the nodes. Hence, data accessibility is often an important performance metric in MANET. Data are replicated at nodes other than owners to increase data accessibility to cope with frequent network partitions and also reduces query response time, if mobile nodes in a MANET have sufficient memory to store both all the replicas and the original data.

Storing same replica by all nodes will lead to decrease of data accessibility. Hence, to maximize data accessibility, a node should not hold the same replica that is also held by many other nodes. This will increase its own query delay.

A selfish node may not share its own memory space to store replica for the benefit of other nodes.

2. BEHAVIOR OF SELFISH NODES IN MANET

Selfishness for nodes are categorized into two types based on their behavior.



1. Fully selfish nodes-The nodes do not hold replicas allocated by other nodes, but allocate replicas to other nodes for their accessibility.
2. Partial selfish nodes-The nodes use their memory space partially for allocated replicas by other nodes. These nodes allocate replicas to other nodes for their accessibility.

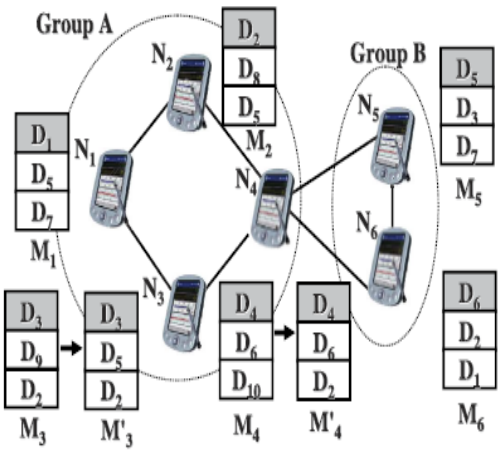
Each node in a MANET has limited memory locally and each node acts as a data provider, it provides several data items and as well as a data consumer. Each node holds data item replicas and maintains the replicas in local memory space. The replicas are relocated in a specific period. There are 'm' nodes, N1,N2,…Nm. Any node can freely joins in a MANET.A mobile adhoc network is an undirected graph G=(IN,IL).Where 'IN' is a finite set of nodes and 'IL' is a finite set of communication links.

- Each node in a MANET has a unique identifier and they are denoted by N={N1,N2,…Nm}, where 'm' is the total number of nodes.

- Each node holds data items of equal size, and first data item in a memory is considered as its original data. Every data item has a unique identifier, denoted by D={D1,D2,…Dn}, where 'n' is the total number of data items. The remaining data items in a memory are treated as replicas for its particular node.
- Each node Ni has its own access frequency for data item and it does not change always.

When a node Ni sends a request (query) for accessing of data item, first, the search has takes place in its own memory. The request is successful, when the node Ni holds the data item as its original data item (or) replica, otherwise the request is broadcasted. The request is also successful, when the node Ni gets reply from its adjacent nodes connected to Ni with one hop or multi hops. Otherwise, the request fails.

FIG. 1: SELFISH REPLICA ALLOCATION



In above figure, there are 6 nodes name as N1,N2,..N6 and their memory spaces are M1,M2,..M6. Each node access the frequency information from the access frequency table.

TABLE 1: ACCESS FREQUENCY OF NODES

Data	Nodes					
	N1	N2	N3	N4	N5	N6
D1	0.65	0.25	0.17	0.22	0.31	0.24
D2	0.44	0.62	0.41	0.40	0.42	0.46
D3	0.35	0.44	0.50	0.25	0.45	0.37
D4	0.31	0.15	0.10	0.60	0.09	0.10
D5	0.51	0.41	0.43	0.38	0.71	0.20
D6	0.08	0.07	0.05	0.15	0.20	0.62
D7	0.38	0.32	0.37	0.33	0.40	0.32
D8	0.22	0.33	0.21	0.23	0.24	0.17
D9	0.18	0.16	0.19	0.17	0.24	0.21
D10	0.09	0.08	0.06	0.11	0.12	0.09

Where each memory location contains 3 data items. First data item is a original one, and the remaining 2 data items are replica allocated.
In the above figure, Node 'N3' behaves 'selfish' by maintaining M3', instead of M3 to prefer the locally frequently accessed data for low query delay.
Due to the selfish behavior, D3, D5, D2, the three top most local frequent accessed items are maintained instead of D3, D9, D2. The nodes N1, N2, N4 in the above figure are no longer able to access D9. This will results in degradation of data accessibility.
Node 'N4' behaves partially selfish. This want to hold 'D2' locally as one of the locally frequently accessed data items. So, in this case N4 uses a part of its storage for its own frequently accessed data, where the remaining part is used for the benefit of overall data accessibility. So that N4 is decided to maintain M4' instead of M4.Data accessibility is degraded with the partial selfishness also. The nodes N1,N2,N3 are cannot access D10 because of partial selfishness in 'N4'.

3. HANDLING SELFISH NODES IN REPLICA ALLOCATION

To handle selfish nodes in MANET, 3 steps have to follow. They are

1. SELFISH NODE DETECTION
2. SCF-TREE CONSTRUCTION
3. REPLICA ALLOCATION

3.1 SELFISH NODE DETECTION

In MANET, each node detects the selfish nodes based on credit risk.
Credit Risk=expected risk / expected value
The size of shared memory space and the number of shared data items are used to represent 'expected risk' and the node specific features are used to represent 'expected value'. Algorithm for selfish node detection is given in List 1.

LIST 1: ALGORITHM FOR SELFISH NODE DETECTION

```
1.  Detection()
2.  For(each connected Nk) {
3.  If(nCRki > δ) Nk is selfish node
4.  Else Nk is non selfish node
5.  Wait until replica allocation is done;
6.  For(each connected node Nk){
7.  If(Ni has allocated replica to Nk)
8.  NDik=Number of allocated replica;
9.  SSik=Total size of allocated replica;
10. Else {
11. NDik=1;
12. SSik=Size of  data item;}}}
```

Every node should execute this algorithm in order to detect the selfish node at relocation period. The following algorithm is to update selfish features in selfish node.

LIST 2: ALGORITHM FOR UPDATE SELFISH FEATURES

```
1.  SF_Update() {
2.  For(during the predefined time w) {
3.  If(the query is served by the expected node Nk)
4.   Pik--;
5.  If(the query is served by the unexpected node Nj)
6.  NDij +=1;
7.  SSij +=(Data item size);}}
8.  If(query is not served by the expected node Nk) {
9.   Pik++;
10. NDik -=1;
11. SSik -=(data item size); } }
```

The algorithm in list2 is executed to update the selfishness features in selfish node.

3.2 SCF-TREE CONSTRUCTION

Selfish nodes are not participated in Self Centered Friendship Tree based replica allocation. Degree of selfishness should be measured by using credit risk score for each non selfish node participated.

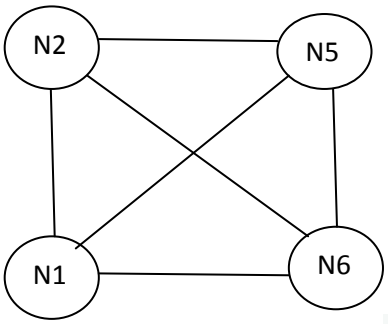
LIST3 : ALGORITHM FOR SCF-TREE CONSTRUCTION

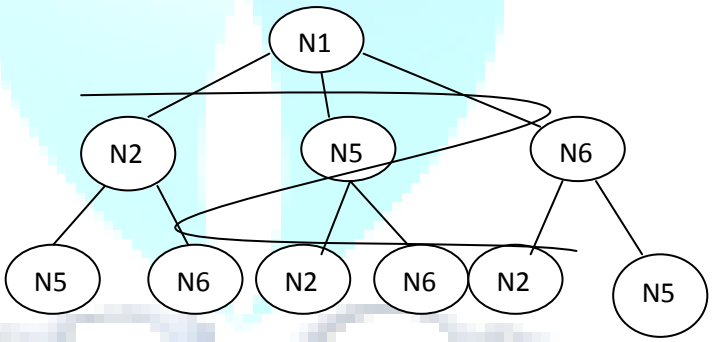
```
1.  SCF-tree_Construct() {
2.  Append Ni to SCF-tree  as root node;
3.  Checkchildnodes(Ni);
4.  Return SCF-Tree;}
5.  Checkchildnodes(Nj) {
6.  For(each node Na belong to INja) {
7.  If (d < distance between Na and the root )
8.  Continue;
9.  Else if(Na is an ancestor of Nj in Tiscf)
10. Continue;
11. Else { append Na to Tiscf as a child of Nj;
12. Checkchildnodes(Na); } }}
```

3.2.1 SAMPLE SCF-TREE CONSTRUCTION

In this example, we assume all the nodes are non-selfish in nature. Multiple roots are possible among the nodes in a MANET. First, select one node as root node for SCF-Tree. The neighbors of root nodes are its Childs. Later connect its neighbors as sub Childs and so on.

FIG 2.1: GRAPH





3.3 REPLICA ALLOCATION

After construction of SCF-Tree, a node allocates replica at every relocation period.

The following algorithm list out the steps for replica allocation. List 4.

FIG 2.2:SCF-TREE OF N1

```
1.  Allocate_replica()
2.  Li=make_priority(TiSCF);
3.  For(each data item belong to IDi) {
4.  If(Ms is not full)
5.  Allocate replica of the data to Ms;
6.  Else {
7.  Allocate replica of the data to the target node;
8.  If(Mp is not full)
9.  Allocate replica of the data to Mp;
10. }}while(during relocation period){
11.  If(Nk requests for the allocation of Dq)
12. allocate_replica_others(Nk,Dq); }}
13.  make_priority(TiSCF){
14. for(all vertices in TiSCF){
15.  select a vertex in TiSCF in order of BFS;
16.  append the selected vertex id to Li;}
17.  return Li;}
18. allocate_replica_others(Nk,Dq){
```

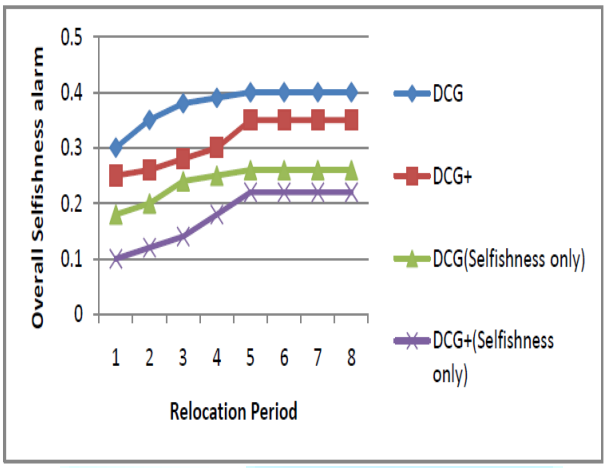
4. PERFORMANCE EVOLUTION

The results are noted by made an experiment in a PC with 3GB RAM and CORE2 dual processor. The simulations are tested using NS2.Creation of MANET, detection of selfish node, selfish node handling while allocating replicas are shown in simulations. The parameters considered for simulations are shown in table2.

TABLE 2: SIMULATION PARAMETERS

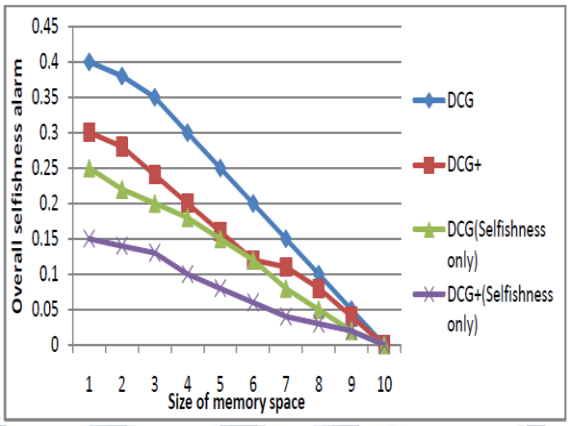
Parameter(unit)	Value(default)
No.of nodes	40
No.of data items	40
Radius of communication Range	1~19(7)
Size of network	50*50
Size of memory space	2~40(10)
Percentage of selfish Nodes	0~100(70)
Maximum velocity of Nodes	1
Relocation period	64~8,192(256)
Zipf parameter	0.8

FIG. 3: RELOCATION PERIOD VS. OVERALL SELFISHNESS ALARM



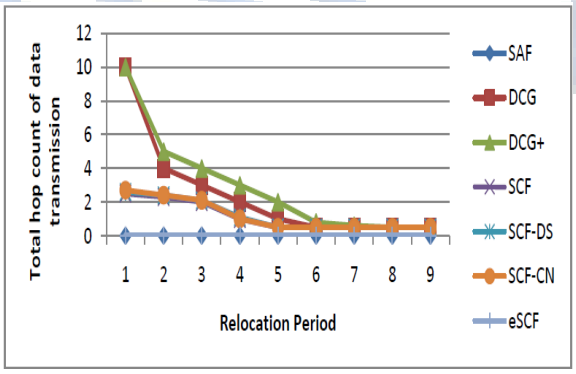
In Fig.3. X-axis represents relocation period and Y-axis represents overall selfishness alarm. The results shows that overall selfishness alarm of DCG+ shows very less.

FIG. 4: SIZE OF MEMORY VS. OVERALL SELFISHNESS ALARM



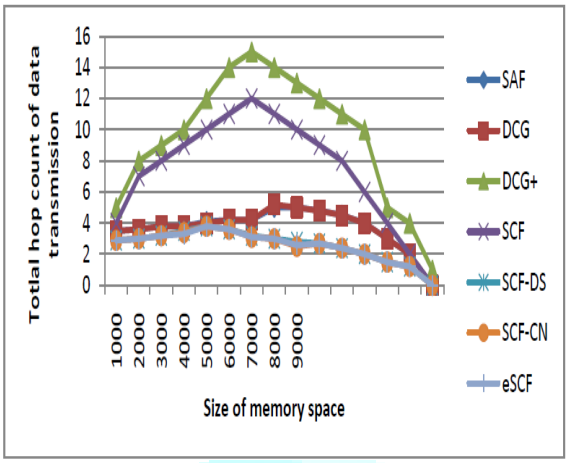
In Fig.4. X-axis represents Size of memory and Y-axis represents overall selfishness alarm. The result shows that overall selfishness alarm of DCG+ shows very less.

FIG. 5: VARYING RELOCATION PERIOD VS. HOP COUNT OF DATA TRANSMISSION



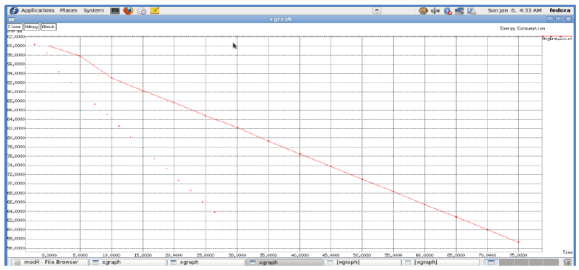
In Fig 5. X-axis represents Relocation period and Y-axis represents hop count of data transmission.

FIG. 6: VARYING SIZE OF MEMORY VS. HOP COUNT OF DATA TRANSMISSION



In Fig6. X-axis represents size of memory space and Y-axis represents hop count of data transmission. The results shows that, both size of memory and hop count of data transmission are directly proportional. Communication cost of SAF is very less when compared with other techniques.

FIG. 7: TIME Vs. ENERGY CONSUMPTION



In Fig.7. X-axis represents time in milli seconds and Y-axis represents energy consumption. Time and energy are indirect proportional.

5. CONCLUSION

MANET is a network with collection of movable nodes. Some of the nodes are selfish in nature. These selfish nodes are making a problem in replica allocation. The selfish nodes are detected and handled by the algorithms mentioned. The simulation results are showing that the algorithms are capable of reducing query delay and improve the data accessibility and overall performance.

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TECHNICAL EFFICIENCY IN TEFF PRODUCTION BY SMALL SCALE FARMERS IN TIGRAY (CASE OF RAYA ALAMATA WEREDA)

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ABSTRACT

In Ethiopia, Teff is one of the staple cereal crops which are grown in most parts of the country. Although this crop is grown in most regions of the country, the present study focuses on technical efficiency as it is an important subject in the development of the agricultural sector where resources are scarce but population growth is very high. Technical efficiency is the ability of a farmer to obtain output from a given set of physical inputs. Farmers have a tendency of under and/or over-utilising the factors of production. The study used a set of analytical techniques to analyse the data; both descriptive and analytical tools. The Cobb-Douglas production function results indicate that some of the variables were found to be positively significant (such as land size, fertilizer adoption and tractor use), while others were negative but significant, and some were positive but non-significant. Even though some variables were not significant, it still shows that the variables used in the analysis have a positive effect on the output (the total quantity of teff produced) which simply means that there is a good inputs-output relationship, and the small-scale teff producers in Raya Alamata are experiencing a decreasing returns to scale. Logistic regression model was employed to identify the socio-economic characteristics that influence the technical efficiency of small-scale teff producers in Raya Alamata. The findings from the logistic regression indicate that there are socioeconomic factors influencing the technical efficiency of small-scale teff producers.These are: level of education, household size, farmer`s farming experience, farm size, membership to farmers organization, income of the household on a monthly basis, fertiliser application, and cost of tractor hours. These factors were found to be significant. However, some of the variables were showing a negative relationship to small-scale teff producers` technical efficiency.

KEYWORDS
Technical efficiency in Teff Production and the Logistic Regression Model.

1.1 INTRODUCTION

In Ethiopia, the agricultural sector is the basis for the economy which accounts for half of the country's GDP, 60% of its exports and 80% of total employment (CIA, 2007; Tewodros, 2009). The undeveloped market economy, which started during imperial period (1930-1974), was halted during the military regime (1974-1991) that introduced command economy. However, since the current government took power in 1991, Ethiopia has been pursuing a market- oriented development strategy and implementing policies that began the shift from a state-controlled to a free market economy. The government has embarked on a various programs of economic reform, including trade liberalization, privatization of public enterprises and streamlining the bureaucracy (Birega, undated). The current Ethiopian economic development strategy, Agriculture Development-Led Industrialization (ADLI), identifies the growth of agriculture as a key to the development of other sectors as well (Admasu and Paul, 2010).

Moreover, the Ethiopian economy is largely dominated by subsistence agriculture and it is smallholder- based (Bishaw, 2009). In addition, mixed farming dominates the Ethiopian highlands. The smallholder farmers in the Ethiopian highlands are poor; individual land holding ranges between 0.5 and 2.5 ha; family sizes are large; land productivity is low and food requirements are not fully met (Jabbar *et al*., 2000). Ethiopian highland agriculture is characterized by high dependency on rainfall, traditional technology, high population pressure and the lowest productivity level (Medhin and Köhlin, 2008). The cereal-based farming systems have also remained largely unchanged and thus have become unable to sustain the ever increasing population with food and energy demands. As a result, there is severe land degradation and declining productivity in many areas of the highlands (Ayele, 2008).

The issue of increasing agricultural productivity has become the main concern to governments following considerable increase in food price over the last two years that follows decades of low food price (Conradie et al., 2009). Despite of Ethiopian government's policy to expand crop production for exports, domestic consumption and universal food security (MoFED, 2006), the productivity of *teff* is the lowest among cereal crops (Haile et al., 2004). In addition, despite its huge potential in wheat production, the country remains the net importer of the commodity (Rashid, 2010).

1.2 PROBLEM STATEMENT

Despite the rapid economic growth registered in the country from 1998 to 2007, Ethiopia is ranked 157 out of 169 countries in the 2010 United Nations Human Development Index and 80 out of 84 in the Global Hunger Index (WFP, 2011). Moreover, while 38% of the rural households live below poverty line(WB2009); chronic food insecurity has been an essential characteristic of the poverty that has affected millions of Ethiopians of which the vast majority of these poor

households live in rural areas that are heavily dependent on rain fed agriculture(Subbarao and Smith, 2003). This indicates that broad based and sustainable agricultural and development in Ethiopia is crucial in alleviating problems of poverty and chronic food insecurity.

In general, agriculture is the backbone of the Ethiopian economy which plays a critical and multidimensional role in Ethiopian economy. It is said that about 85% of the Ethiopian population, which lives in the rural areas, derives its livelihood from Agriculture, Diao et al. (2010), moreover, the sector accounts for more than 40% of national GDP; and it is the source of 90% of the country's export earnings. This means that the rate at which agricultural sector attains its growth and sustainability highly determines the country's macroeconomic performances such as overall economic growth, employment, food security, poverty reduction and per capita income growth.

Despite its importance, however, Ethiopian agricultural sector is dominated by subsistence and smallholder-oriented system (Bishaw, 2009). Predominantly, Ethiopian highland agriculture is characterized by high dependency on rainfall, traditional technology, high population pressure, and severe land degradation combined by low level of productivity (Medhin & Kohlin, 2008). Notwithstanding the government's policy to expand crop production for exports, domestic consumption and universal food security (Ministry of Finance and Economic Development (MoFED), 2006), low productivity levels in *teff* (Haile et al., 2004) and chickpea (Shiferaw & Teklewold, 2007) have been reported.

So as to achieve poverty alleviation objectives among smallholder farmers, productivity and efficiency of resource use must be improved to increase income, attain better standard of living and reduce environmental degradation (Ajibefun, 2000). In addition, Ajibefun & Daramola (2003) also argue that there is a need to increase growth in all sectors of the economy for such growth is the most efficient means of alleviating poverty and generating long-term sustainable development, where resources must be used much more efficiently to improve productivity and income. Thus, resource use efficiency in smallholder agriculture could be the basis for achieving universal food security and poverty reduction objectives of the country particularly among the rural households in Ethiopia.

Agricultural productivity depends on how factors are efficiently used in the production process. Therefore, intensification of agricultural land and expansion of technology use must be accompanied by resource use efficiency that enhances productivity of factors. Improvements in resource use efficiency hence increase in productivity will reduce encroachment of population to marginal agricultural lands. In turn, this will protect the resource base of the poor against degradation.

Thus, the main aim of this study is to analyze the technical efficiency of small-scale Teff producers in Raya Alamata community. The objective of the study is to determine the level of technical efficiency of small-scale Teff producers and to identify the socio-economic characteristics that influence technical efficiency of small-scale Teff producers in Alamata.

1.3 OBJECTIVE OF THE STUDY

The main aim of the study is to analyze the technical efficiency of small-scale Teff producers in Raya Alamata Wereda.

SPECIFIC OBJECTIVES

With the above general objective of the study in mind, the study has the following specific objectives:

1. To determine the level of technical efficiency of small-scale Teff producers in the study area.
2. To identify the socio-economic characteristics that influence technical efficiency of small-scale Teff producers in the study area.

1.4 HYPOTHESIS OF THE STUDY

Hypothesis 1: The small-scale Teff producers in Raya Alamata are not technically efficient.

Hypothesis 2: There are no socio-economic characteristics that influence technical efficiency of small-scale Teff producers in the study area.

LITERATURE REVIEW

2.1 ENVIRONMENTAL DEGRADATION AND MARGINALITY IN THE ETHIOPIAN AGRICULTURE

Environmental and resource degradation has been widely accepted as a crucial constraint to reducing poverty among the most disadvantaged and marginalized populations in the world, who are largely rural (UN Millennium Project, 2005). Moreover, poverty and environmental degradation tend to be more pronounced in the so-called least favored areas or zones of marginal agricultural production. These are areas which have the weakest natural resource endowments, the least political power, and are the most remote from markets. Moreover, least favored areas are areas at risk of getting stuck in a poverty trap which prevents them taking advantage of emerging opportunities (ibid).

According to Pender *et al*. (2001) there is a strong interrelation between problems of poverty, low agricultural productivity, and natural resource degradation in less-favored areas of the tropics. However, addressing the complex challenges of less-favored areas will not be easy or inexpensive. More critically, it requires policy and institutional reforms; investments in agricultural research; development in rural infrastructure and the active involvement of local communities are among others. The authors further explained that ecological and geographic constraints of location are major contributors to the spatial concentration of rural poverty. Indeed, most of the rural poor worldwide are found in those least favored areas where natural and human factors combine to constrain agricultural production and market access (ibid).

It is indicated that in Ethiopia, the problems of widespread land degradation in all regions combined with recurring drought constitute one of the most serious problems facing the country's agriculture. It is more pronounced particularly in the highlands where most agricultural production takes place. It is also further mentioned that while more than 85 percent of the land is moderately to very severely degraded, about 75 percent is affected by desertification.

In the Ethiopian highlands the problem of land degradation stems mainly from poor land-use practices and population pressure (ibid). The production system in the highlands is mainly rain fed, subsistence-based and smallholder-oriented. Furthermore, population and livestock pressures have decreased the size of land holdings, including both arable and pasturelands, leading to conversion of forested and marginal areas into agricultural lands and low level of crop productivity (Hoekstra *et al.*, 1990 cited in Bishaw, 1993; Bishaw, 1993; Anage, undated). In Bishaw (1993) it is also indicated that soil degradation in Ethiopia is a direct result of past agricultural practices in the highlands. Some of the farming practices within the highlands encourage erosion. These include cultivation of cereal crops such as *teff (Ergrostis tef)* and wheat (*Triticum sativumt*) which require the preparation of a finely tilled seedbed, the single cropping of fields, and down-slope final plowing to facilitate drainage.

2.2 EFFICIENCY IN AGRICULTURAL PRODUCTION

In economics, the term efficiency is commonly used in a variety of settings which includes aspects such as efficient price, efficient markets and efficient firms among others. Efficiency in production refers to scarce resources being used in an optimal fashion. In production economics, efficiency can be understood in terms of a firm's ability to convert inputs into outputs and respond optimally to economic signals or prices.

The question of efficiency in resource allocation in traditional agriculture is crucial. It is widely held that efficiency is at the center of agricultural production. This is because the scope of agricultural production can be expanded and sustained by farmers through efficient use of resources (Ali, 1996; Udoh, 2000; Hailu *et al.*, 2005). For these reasons, efficiency has remained an important subject of empirical investigation particularly in developing economies where majority of the farmers are resource-poor (Umoh, 2006).

The crucial role of efficiency in increasing agricultural output has been widely recognized by researchers (for example, Hailu *et al.*, 2005; Ozkan *et al.*, 2009 and Ghorbani *et al.*, 2009 among others) and policy makers alike. Because, efficiency of a farm is an indicator to its success in producing as large amount of output as possible given a set of inputs. Moreover, for determination of efficiency of a particular firm, there is a need for efficiency measurement through the production factor inputs and processes (Omonona *et al.*, 2010).

The history of efficiency measurement in microeconomics goes back to Farrell (1957) who defined a simple measure of firm efficiency. In the approach, Farrell (1957) proposed that efficiency of any given firm is composed of technical and allocative efficiencies. According to Farrell (1957), technical efficiency (TE) is associated with the ability of a firm to produce on the iso-quant frontier while allocative efficiency (AE) refers to the ability of a firm to produce at a given level of output using the cost-minimizing input ratios. Thus, economic efficiency (EE) can be defined as the capacity of a firm to produce a predetermined quantity output at a minimum cost for a given level of technology.

However, over the years, Farrell's methodology had been applied widely in diverse industries and organizational structures. The methodology was also undergoing many refinements and improvements through major theoretical and empirical research advancements occurred in late 1970's (Hailu *et al.*, 2005). One of such improvements is the development of stochastic frontier model which enables one to measure farm level technical and economic efficiency using maximum likelihood estimate. Aigner *et al.* (1977) and Meeusen and Van den Broeck (1977) were the first to propose stochastic frontier production function and since then many modifications had been made to stochastic frontier analysis.

According to Okoruwa *et al.* (2006), the measurement of farm specific technical efficiency is based upon deviations of observed output from the best production or efficient production frontier. If a farm's actual production point lies on the frontier it is perfectly efficient. But, if it lies below the frontier then it is technically inefficient. The ratio of the actual to the potential production levels of a farmer defines the level (scores) of technical efficiency (ibid). An economically efficient input-output combination would be on both the frontier function and the expansion path (Ogundari and Ojo, 2006).

According to Ozkan *et al.* (2009) interpretation of efficiency in agriculture is also as important as the evaluation of agricultural outputs with respect to diverse range of inputs used. The researchers further indicated that the process of transformation of inputs to outputs has a vital role in interpretation of success of a production system. The success of the process can be explained through productive or economic efficiency (ibid). Moreover, for all agricultural sectors to remain competitive in the market and be profitable, achieving a high level of technical efficiency is of prime importance (Ghorbani *et al.*, 2009).

Therefore, achievement of higher productivity levels and sustainable resource utilization in the agricultural sector necessitates smallholder producers to be economically efficient. This ultimately makes smallholder farmers competitive in market-oriented crops production. Furthermore, achieving high level of resource use efficiency hence increase in productivity in smallholder agriculture would help to avoid the expansion of marginal lands in Ethiopia.

2.3 EMPIRICAL ESTIMATION APPROACHES TO EFFICIENCY

A number of methods have been developed either parametric (econometric) or non-parametric (mathematical programming) to estimate efficiencies in firms/farms. These include stochastic frontiers which adopt production, cost or profit functions and data envelopment analysis (DEA) and a number of versions of DEA in the efficiency estimation process. According to Mersha (2004), considerations such as the type of data, the underlying behavioral assumptions of firms, the relevance to consider and extent of noise in the data and the objective of the study determine the selection of specific frontier model.

2.3.1. STOCHASTIC FRONTIER APPROACH (SFA)

The Stochastic frontier Approach (SFA) was developed independently by Aigner *et al.* (1977) and Meeunsen and Van den Broeck (1977). SFA is a parametric method where the error term is decomposed in a regression model into inefficiency component and measurement error component; $\varepsilon ij=vij-uij$ where εij is the error term, *vij* the measurement error, and *uij* the inefficiency component. The model is recommended when analyzing farm level data where measurement error, some missing information and presence of risks factors are likely to have a significant impact (Coelli, 1996). SFA approach can be extended to measure inefficiencies in individual production units based on some distributional assumptions for the *uij* on the technical and economic inefficiency scores. These assumptions are based on functional forms used in the analysis; half normal distribution for Cobb-Douglas forms, truncated normal for Trans-logarithmic forms and exponential distribution for generalized Leontief models (Mbaga *et al.,* 2003). The models for SFA allow for estimation of standard errors and tests of hypotheses using maximum likelihood methods which cannot be possible with deterministic models because they violate certain maximum likelihood assumptions (Jondraw *et al*., 1982 and Ali and Flinn, 1989). However, a serious shortcoming with SFA is that there is no priori justification for the selection of any particular functional form for the inefficiency component. In parametric frontier methodology the selection of specific functional form may not represent the reality (Mersha, 2004). Moreover, Coelli *et al.* (1998) indicated that the SFA is appropriate for single-output technologies; unless cost-minimizing objective is assumed.

2.4 DETERMINANTS OF EFFICIENCY

Efficiency estimation without clearly identifying important socio economic and demographic, institutional and policy variables, has limited importance for policy and management purposes. Thus, in this study, identification and analysis of the underlying factors of inefficiency was given priority. Previous empirical studies on agricultural resource use efficiency by Okoye *et al.* (2007), Javed (2009), Alemdar and Ören (2006) and Nyagaka *et al.* (2010) among others were reviewed for better information regarding the selection of determinants for analyses.

In an empirical study by Okoye *et al.* (2007) to determine economic efficiency in small-holder cocoyam farmers in Anambra state, Nigeria, the determinants of economic efficiency were modeled in terms of socio-economic variables of the farmers and other farmer related factors. The study found that whereas age, level of education and farm size to be negatively and significantly related to economic efficiency; farmer's farming experience and fertilizer use were significantly and positively related to economic efficiency.

Javed (2009) determined efficiency of cotton-wheat and rice-wheat systems in Punjab, Pakistan, considering socioeconomic and farm specific factors which were as likely to affect the level of technical, allocative and economic inefficiency. Accordingly, in order to identify sources of technical, allocative and economic inefficiency, inefficiency scores were regressed on socio-economic and farm specific variables, using Tobit regression model. The result indicated that years of schooling, contact with extension agents and access to credit variables were negatively related to inefficiency. On the other hand, age of farm's operator and farm to market distance variables are positively related with the technical inefficiency of farms in cotton-wheat system.

Alemdar and Ören (2006) identified the determinants of technical efficiency of wheat farming in southeastern Anatolina, Turkey. The authors used DEA technique to estimate the level of technical efficiency scores and Tobit regression model to determine source of efficiency. The result showed that there is considerable scope for cost reduction in the region. They also found that land fragmentation was the main determinant of technical inefficiency.

Chirwa (2007) estimated technical efficiency among smallholder maize farmers in Malawi and identified sources of inefficiency using plot-level data. The researcher found that smallholder farmers in Malawi are inefficient. The result revealed that inefficiency declines on plots planted with hybrid seeds and for those controlled by farmers who belong to households with membership in a farmers association or club.

3. METHODOLOGY

3.1 DESCRIPTION OF STUDY AREA

Ethiopia has the largest highland areas (defined as areas above 1500 meters above sea level) in the African continent, constituting about half of the country. The highlands are home to about 90% of the total population (ILCA, 1983). The highlands also contain over 95 percent of the regularly cropped areas and around two-thirds of the livestock. Moreover, it is estimated that 90 percent of the country's economic activity and gross domestic product are generated from these highlands (Constable, 1985 cited in Bishaw, 1993).

Distinguished by small, undulating mountains with low vegetation cover, Alamata has an altitude which ranges between 1178 to 3148 meters above sea level, which drain into the Alamata Valley. Eight of the peasant associations are located in the Valley, while two are located in the intermediate highlands which have elevations ranging between 1500 and 3148 meters. The study area, Alamata woreda, is located at 600 km north of Addis Ababa and about 180 km south of the capital of the Tigray Region Mekelle. It is the south most woreda of the Tigray Region and borders with the Amhara Region from the south and west and the Afar Region from the east.

Based on the 2007 national census conducted by the Central Statistical Agency of Ethiopia (CSA), this woreda has a total population of 85,403, an increase of 26.56% over the 1994 census, of whom 42,483 are men and 42,920 women; 4,563 or 5.34% are urban inhabitants. With an area of 1,952.14 square kilometers, Alamata has a population density of 43.75, which is less than the Zone average of 53.91 persons per square kilometer. A total of 20,532 households were counted in this woreda, resulting in an average of 4.16 persons to a household, and 20,107 housing units. 80.27% of the population said they were Orthodox Christians, and 19.68% were Muslim.

The 1994 national census reported a total population for this woreda of 93,659 of whom 45,521 were men and 48,138 were women; 32,229 or 34.41% of its population were urban dwellers. The three largest ethnic groups reported in Alamata were the Tigrayan (62.19%), the Amhara (33.91%), and the Oromo (2.24%); all other ethnic groups made up 1.66% of the population. Tigrinya was spoken as a first language by 61.36%, 36.48% Amharic, and 1.36% spoke Oromo; the remaining 0.8% spoke all other primary languages reported. 78.35% of the population practiced Ethiopian Orthodox Christianity, and 21.45% were Muslim.

Concerning education, 14.76% of the population were considered literate, which is less than the Zone average of 15.71%; 20.65% of children aged 7-12 were in primary school; 3.09% of the children aged 13-14 were in junior secondary school; 3.38% of the inhabitants aged 15-18 were in senior secondary school. Concerning sanitary conditions, about 91% of the urban houses and 43% of all houses had access to safe drinking water at the time of the census; about 31% of the urban and 12% of the total had toilet facilities.

A sample enumeration performed by the CSA in 2001 interviewed 18,422 farmers in this woreda, who held an average of 0.84 hectares of land. Of the 15,533 hectares of private land surveyed, 98.16% was in cultivation, 0.03% pasture, 0.5% fallow, 0.27% woodland, and 1.04% was devoted to other uses. For the land under cultivation in this woreda, 91.67% was planted in cereals like teff and sorghum -- although barley is the dominant crop in hgiher elevations -- 5.54% was in pulses, 31 hectares in oilseeds, and 33 planted in vegetables. The area planted in fruit trees was 43 hectares, while none were planted in gesho. 61.26% of the farmers both raised crops and livestock, while 23.92% only grew crops and 14.82% only raised livestock. Land tenure in this woreda is distributed amongst 72.66% owning their land, and 27.25% renting; the number held in other forms of tenure is missing. *Parthenium hysterophorus* (or Congress weed) is reported to be an increasing threat to cereal production in Alamata, as well as in the adjacent woreda of Kobo in Amhara Region. Cash crops include field peas, faba beans, lentils, teff and peppers.

3.2 DATA COLLECTION

In this study, primary data was used and data was collected through field survey and household interviews using a structured questionnaire. The questionnaire is structured in such a way that the first part will cover the socio-economic variables such as the age of the household head, size of the household, off-farm income, gender etc. The second part deals with the factors of production such as, land, labor, cost of farming hours and materials use such as fertilizer and seed, and the last part focus on the collection of marketing information regarding where they buy their inputs and where they sell their output.

3.3 SAMPLING

The study used purposive and snowball sampling techniques. The purposive sampling method used to interview only households who produce Teff, since the main purpose of the study is to analyze the technical efficiency of small-scale Teff producers. Snowball sampling used by the researchers to identify households that produce Teff; once the researchers have identified one household it becomes easier to identify the next. The respondents were the ones indicating who produced Teff as they knew who was engaged in what activity in the community.

For the present study, a sample size of 267 households were used. To address these households, from each Tabia, proportionate (5% from each Tabia) sample households were selected using systematic random sampling technique from the list of households in each Tabia.

TABLE 1: DISTRIBUTION OF SAMPLED HOUSEHOLDS IN THE STUDY AREA, ALAMATA WOREDA, 2010

PA list	Total Households	Sample size
Timuga	2718	136
SelamBikalsi	1516	76
Garjale	1103	55
Total		**267**

3.4 ANALYTICAL METHODS

a) Descriptive statistics

The purpose of using this type of analytical tool is to summaries the data by describing the basic features of the data in the study, and to provide simple summaries of the variables and measures.

b) Cobb-Douglas production function

Cobb-Douglas production function were used to analyze the variables that have effect on Teff production, and this analytical technique will be used to determine the technical efficiency of small-scale Teff producers in Alamata.

A Cobb-Douglas production function will be used as the functional form of the production function. The reason for choosing this type of production function is that it is linear in its logarithmic form, and allows for the usage of Ordinary Least Squares (OLS). At the same time, this function type has been widely used for production function analysis by many researchers.

The theoretical Cobb-Douglas production function is expressed as follows:

$$Y = AL^{\alpha}K^{\beta}u$$

Where: Y= output, A= constant, L= labor , K= capital, U = disturbance term

For constant returns to scale, the sum of the parameter coefficients, β and α must be equal to one (1). For increasing returns to scale, they must be greater than one, and for decreasing returns to scale they must be less than one. In mathematical form, the returns can be expressed as follows:

$$\alpha = \frac{\delta Y / Y}{\delta L / L}$$

$$\beta = \frac{\delta Y / Y}{\delta K / K}$$

Where β and α are the elasticities of production with respect to labor and capital.

These are considered the most important properties of the Cobb-Douglas production function.

However, the Cobb-Douglas production function model has a number of limitations.

The major criticism is firstly that it cannot represent all the three stages of Neo-classical production function, representing only one stage at a time. Secondly, the elasticities of this type of a function are constant irrespective of the amount of input used. However, regardless of these limitations, the Cobb-Douglas production function will be used for its mathematical simplicity, and the functional forms have limited effect on empirical efficiency measurement. It is also not exclusive to labor and capital but to other variables.

The operational model for this study relating to the production of Y, to a given set of resources X, and other conditioning factors is given as follows:

$$Y = aX_1^{\beta_1}X_2^{\beta_2}X_3^{\beta_3}X_4^{\beta_4}X_5^{\beta_5}e$$

Where

Y is total quantity of Teff produced (in kg)

X1 is land devoted (in hact)

X2 is family and hired worker days used (man days)

X3 is capital (Birr)

X4 is fertilizer used (in kg)

X5 is seed used (in kg)

And a, β1….. β5 are parameters to be estimated.

u is error term.

In order to use the Ordinary Least Squares procedure, the Cobb-Douglas production function will be linearlized using logarithms.

Taking logarithms on both sides, the model will be: $$\ln Y = \ln(a) + \ln\beta_1 X_1 + \ln\beta_2 X_2 + \ln\beta_3 X_3 + \ln\beta_4 X_4 + \ln\beta_5 X_5 + u$$

LOGISTIC REGRESSION MODEL

This study also used the logistic regression model to supplement the Cobb-Douglas production model as it only concentrates on the production of variables/efficiency, while logistic regression model deals with the socio-economic factors. The logistic regression model is chosen because its dependent variable is binary and can only take two values. Also, it allows one to estimate the probability of a certain event occurring. A logit model is also generally preferred to the probit model due to its simpler mathematical structure.

The logit model is based on the accumulative distribution function and yields results that are not sensitive to the distribution of the sample attributes when estimated by maximum likelihood.

The operational logit model can be written as follows:

$$Logit(p) = \ln(p/1-p) = \alpha + \beta_1 X_1, + - - - - + \beta_k X_k, i$$

The ratio p/1-p is the odds ratio

Pi = probability that a farmer is efficient.

1-Pi = probability that a farmer is not efficient

Xi = various independent variables.

βi = estimated parameters.

Ui = disturbance term.

Operational model:

To examine the impact of socio-economic factors on efficiency of small-scale teff producers at Alamata, the following linear equation is specified.

$$EFF = \beta_0 + \beta_1 gend + \beta_2 age + \beta_3 edu + \beta_4 hhs + \beta_5 inch + \beta_6 far\exp + \beta_7 farsz + \beta_8 hirlab + \beta_9 tract\cos + \beta_{10} fertust + \beta_{11} purch + \beta_{12} frorg + \beta_{13} mprof + u_i$$

$$\ln(a) + \ln\beta_1 X_1 + \ln\beta_2 X_2 + \ln\beta_3 X_3 + \ln\beta_4 X_4 + \ln\beta_5 X_5 + u$$

4. RESULTS AND DISCUSSIONS

4.1 INTRODUCTION

In this chapter, we briefly summarize the results from the descriptive statistical analysis. These results indicate the frequency, percentage and the mean of some variables. We use the descriptive statistics for the simple reason that we want to describe the basic features of the data in the study area and provide simple summaries of the variables and measures. Next to this, the results from Cobb-Douglas Production Function model and the Logistic Regression model will be addressed. The estimates in both models are estimated using the STATA 9.0 version.

4.2 DESCRIPTIVE STATISTICS

As discussed above, this part deals with the results from the descriptive statistics using frequency and mean values are indicated using figures and tables. Thus, the mean value of the main variables is summarized in table 4.1, the summary of land size devoted for farm production is presented in table4.2 and the amount of seeds applied per hectare of land is summarized using the pie chart in Figure 4.1. On the other hand, the subsequent figures indicated the summary of demographic characteristics of the respondents such as education, gender and type of labor employed on the farm, etc.

TABLE 4.1: MEAN DESCRIPTIVE OF VARIABLES

Variables	Mean	Standard Deviation
age (years)	51.14	14.031
labor (man days)	112.32	27.92276
hhs (numbers)	5.62	2.099
farexp (years)	23.86	12.555
improved seeds (kg)	17.08	6.403
land (ha)	1.1521	0.46776
fertilizer (kg)	53.75	0.1356

Source: survey 2013

The average man days used for labor are estimated to be 112.32 days per hectare. These include both hired labour and family labour. Labour is the most important input for Teff production, especially with small-scale farmers. The household size plays an important role in Teff production and most farmers depend mainly on family labour. The results show that the average household size is 5.62, which mathematically represent 6 members per household.

This shows that farmers can have easy access to additional labour from family members.

The majority of small-scale farmers are older people, which means the older you get the more experience you have with regard to farming. The average farming experience is about 23.86 years, which is practically 24 years meaning it plays a role in the production of Tefff as experience enables a farmer to change methods of planting without increasing inputs. It also shows that Teff production has been in existence for a number of years as the majority of the small-scale farmers have been in Teff production for more than 20 years. The age of the farmer is an important factor of production as older people tend to be resistant to technical efficiency, preferring to use old methods of planting. It is assumed that older farmers are more experienced in farming activities and are better able to assess the risks involved in farming than younger farmers. The average age of the farmers is 51.14 years old. This indicates that older people are the ones participating in agricultural production.

The average seeds used by the farmer per ha is about 17.08 kg, while they own around 1.15 ha of land on average used for the production of Teff. This land was given to them by the traditional authority. Most of the small-scale farmers in the study area use fertilisers, whereas those who does apply about 53.75 kg on average per farm size.

4.2.1 LAND DEVOTED TO TEFF PRODUCTION/FARM SIZE

Farm size has an influence on technical efficiency and the total output of Teff production. Land plays an important role in farming. The size of the farm is based on the size of land used by the household for Teff production. Most of the farmers have limited access to enough land.

TABLE 4.2: LAND DEVOTED TO TEFF PRODUCTION/FARM SIZE

Farm size (ha)	Percentage (%)
0.5	11.25
1	18.75
1.5	26.6
2	43.4

Source: survey 2013

As can be seen from table 4.2 above, the results show that majority of the farmers own about 2 hectare of land that they use for Teff production, which is about 43.4% of farmers, followed by 26.6% of farmers owning about one and half hectare of land, 18.75% of farmers owning one hectare of land and 11.25% owning

0.50 hectares of land. These results indicate that technical efficiency is mainly affected by the farm size as some farmers do not own the land they are using for production processes.

4.2.2 SEEDS USED PER HECTARE

Farmers are not obliged to use a certain amount of kilogramme of seeds per hectare.

Any amount of seeds can be used. Most small-scale farmers who practice subsistence farming do not buy certified seeds, but they use recycled seeds that are stored after every harvest, while others buy recycled seeds from their fellow farmers.

This practice affects the crop output every year in terms of quantity as well as quality.

FIGURE 4.1: SEEDS USED PER HECTARE

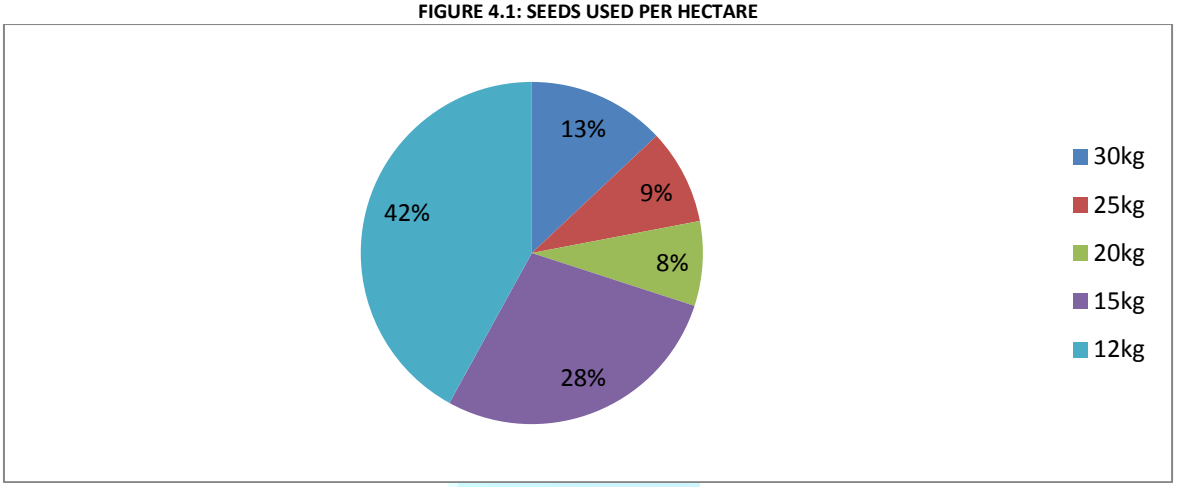
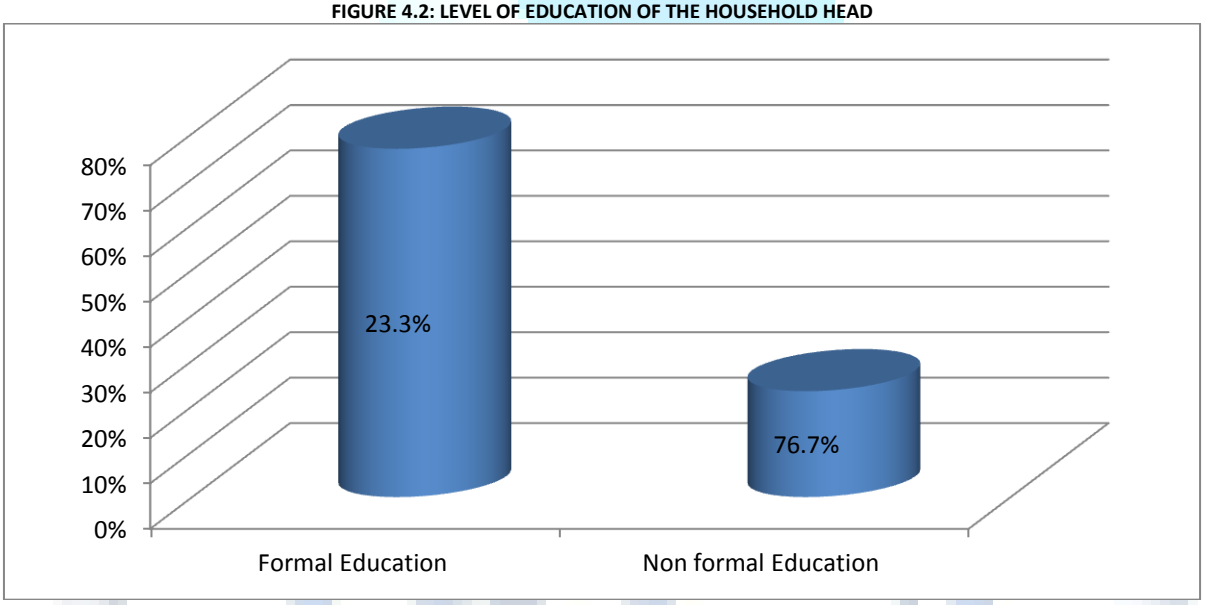


Figure 4.1 indicates the different kilogrammes of seeds applied per farmer in the production of Teff. About 42 % of farmers apply 12kg of seeds, 28 % apply 15 kg, 30 kg is applied by 13 %, while 9% of farmers apply 25 kg and 20 kg of seeds is applied by 8%. The different amount of seeds applied depends on the size of the farm as Teff production ranges from 0.5 ha to 2 ha of land.

4.2.3. LEVEL OF EDUCATION OF THE HOUSEHOLD HEAD

Education potentially enhances farm efficiency and knowledge with regard to agricultural production. Educated farmers are able to apply better farming methods. They are also better placed to try newer forms of farming.

FIGURE 4.2: LEVEL OF EDUCATION OF THE HOUSEHOLD HEAD



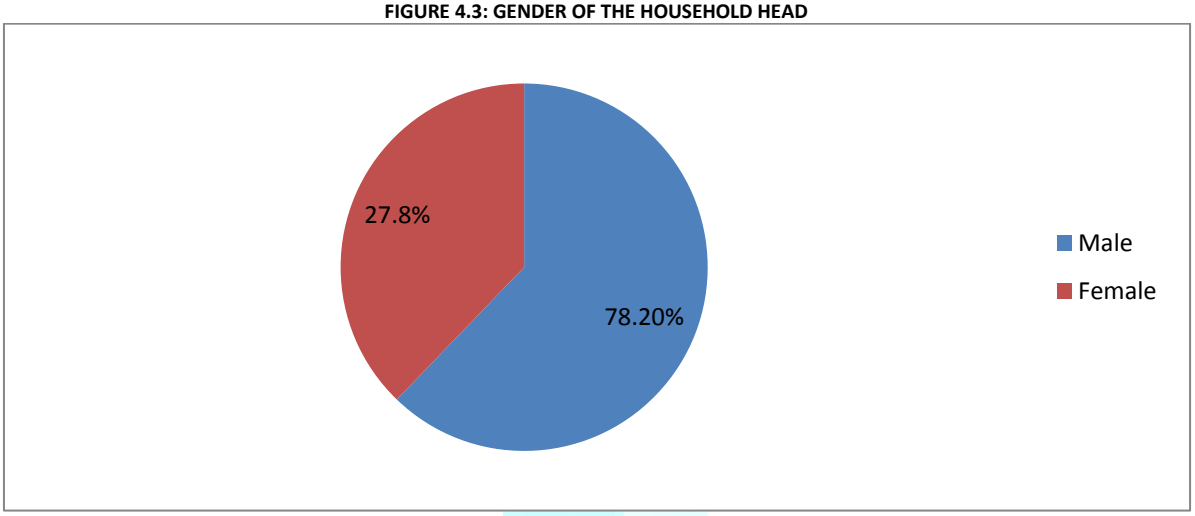
Source: Survey 2013 and own drawing

The above results in figure 4.2 indicate that 76.7 % of farmers had non- formal education, with 23.3% attaining formal education, which includes primary education, followed by secondary education, tertiary and Golmasoch Timhrt (Adult Based Education and Training). The majority of the farmers had primary education, with very few obtaining tertiary education, which means most of them are literate. In order for farmers to improve their standards of living, education is of crucial importance.

4.2.4 GENDER OF THE HOUSEHOLD HEAD

Small-scale farming is mainly dominated by males, as many households are headed by men. Thus, small-scale farmers in Ethiopia are men who farm to support their families.

FIGURE 4.3: GENDER OF THE HOUSEHOLD HEAD

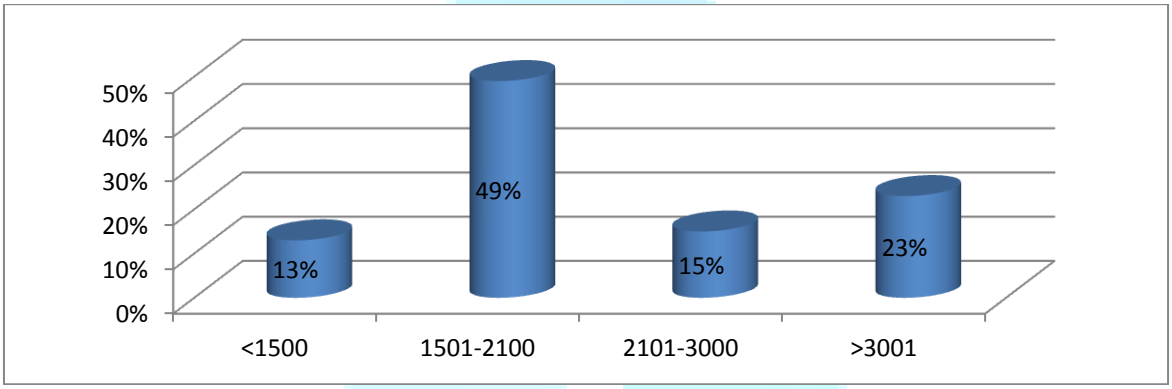


The results in figure 4.3 indicate that only 27.8 % (68) out of 100 are female farmers and 78.2 % (182) are male farmers. Reducing inequalities in human and physical capital between male and female farmers will potentially increase output and technical efficiency will improve because of the joint efforts.

4.2.5 INCOME OF THE HOUSEHOLD ON MONTHLY BASIS

Since the age of most farmers is between 25 and 67, it means that they mainly depend on remittance and off-farm incomes for household income. This income plays a vital role in Teff production as they have to invest in capital inputs such as hiring tractor or labour. Without these financial input farmers cannot maintain the required standard of technical efficiency.

FIGURE 4.4: MONTHLY HOUSEHOLD INCOME



The results in figure 4.4 show that 13 % of the farmers get less than ETB1500 monthly, with the majority 49 % of farmers earning between ETB 1501 and ETB 2100 at 49 %, and 15% of the farmers earning between ETB 2101 to R3000 monthly, while 23 % of the farmers earned more than ETB 3001. Since farming is dominated by older people who mainly depend on old age social grant or child grant for some, it indicates that farmers with less off-farm income are heavily dependent on farming, unable to buy the necessary inputs, and adversely affecting efforts to increase output and thereby limiting farmers from increasing their technical efficiency levels.

4.2.6 FARM LABOUR

Even though small-scale farmers mainly depend on family labour, they still hire labour to add to the family labour. Usually one or two people are hired. Farmers with smaller family size are the ones who usually hire labour. Hired labour helps in accelerating production at the various stages of farming.

FIGURE 4.5: FARM LABOUR

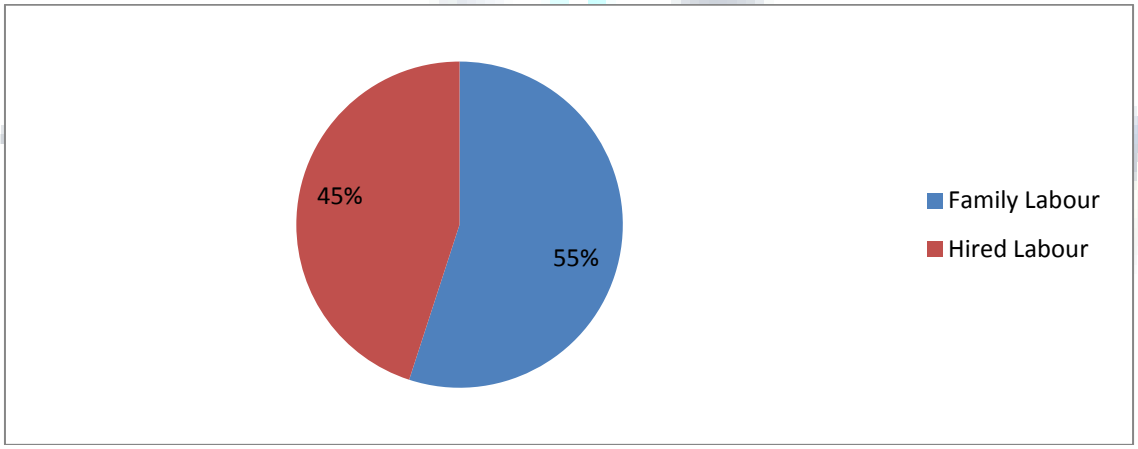
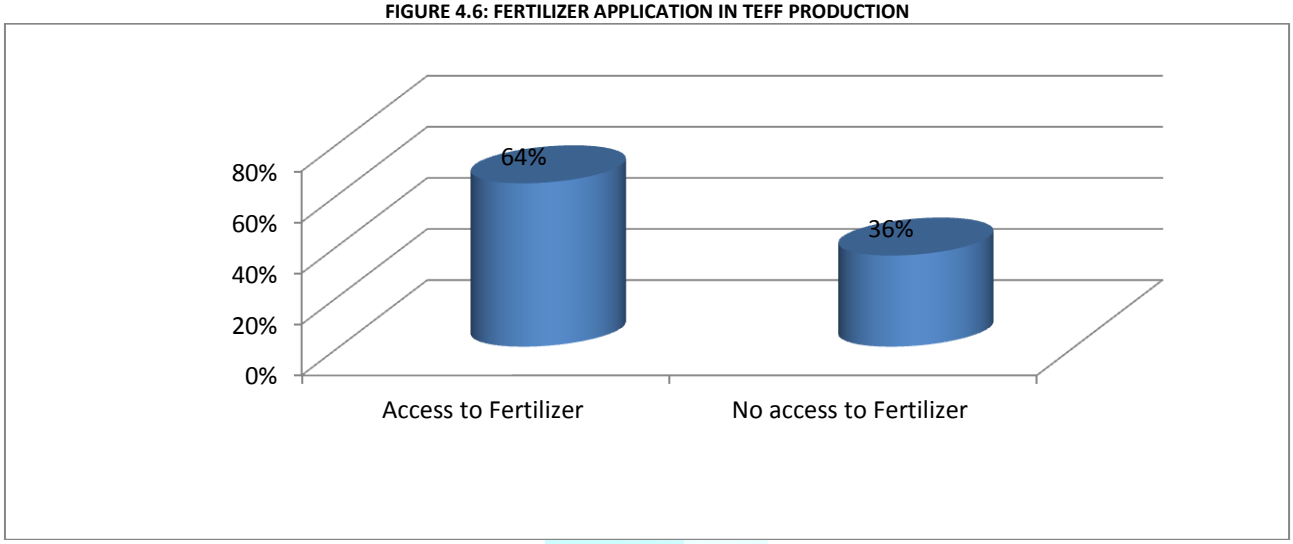


Figure 4.5 shows that 55 % of the farmers agree that most farmers depend on family labour since they do not hire labour, while 45% of the farmers hire labour. Family labour tends to influence the technical efficiency of small-scale Teff producers as they have the best interest of the farmer/household at heart unlike hired labour.

4.2.7 FERTILIZER APPLICATION IN TEFF PRODUCTION

Fertilizer plays a vital role in Teff production as no matter how large and small the farm size is, if applied properly yields will increase. Small-scale farmers tend to have difficulties in obtaining fertilizer as they lack financial means.

FIGURE 4.6: FERTILIZER APPLICATION IN TEFF PRODUCTION

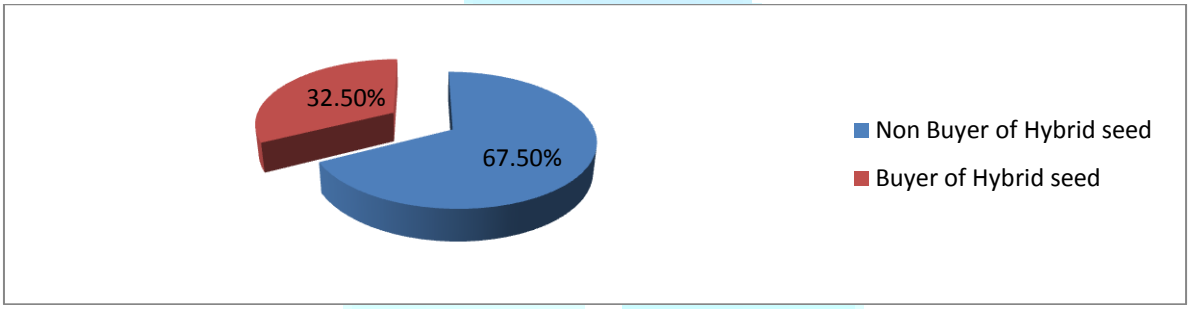


The above results indicate that about 64 % of the farmers do apply fertiliser in Teff production. This includes even those farmers using manure and readymade fertilizer. About 36% of farmers have no access to fertilizer. This can be due to lack of funds to buy and transport fertilizer. The non-application of fertilizer certainly influences technical efficiency.

4.2.8 PURCHASED HYBRID TEFF SEEDS

Hybrid Teff seed plays an important role in Teff production since it has been assumed that 1ha of land can produce 1tonne of Teff with the use of hybrid seeds which are fortified to increase the yields of Teff. Most small-scale farmers use the same seed they used previously. After harvesting they store some of the Teff in order to use it in the next planting season, a practice which hampers the effort of trying to increase productivity.

FIGURE 4.7: PURCHASED HYBRID TEFF SEEDS



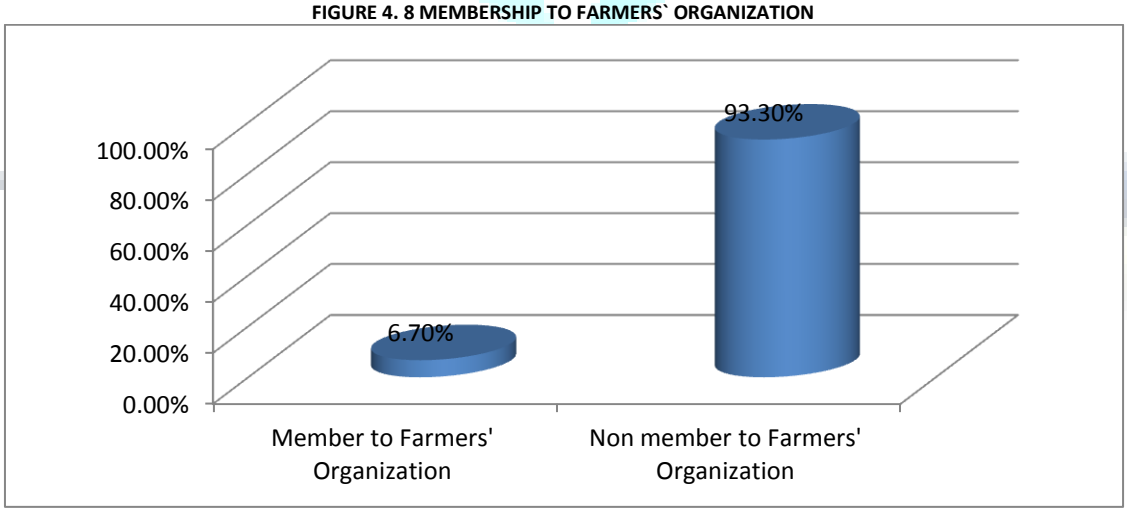
The results show that 32.5 % of the farmers buy hybrid Teff seed. These are not the accurate numbers since some farmers buy used seed from their fellow farmers, indicating that those seeds are more affordable than the ones sold at cooperatives.

About 67.5 % of the farmers are not purchasing hybrid seed at all; they use their own recycled seed instead. Such practices hinder farmers from increasing their technical efficiency through attaining maximum output with available resources.

4.2.9 MEMBERSHIP TO FARMERS` ORGANIZATION

Farmers` organizations play an important role in organizing members into input cooperatives and in creating access to financial services from state and nongovernment organization (NGO) sectors and seeking access to other financial development agencies. This is an important factor affecting technical efficiency. With availability of finance much can be done to improve crop production.

FIGURE 4. 8 MEMBERSHIP TO FARMERS` ORGANIZATION



The results show that farmers who are members of farming organizations are rather small as compared to those farmers who are non-members, with only 6.7% farmers being members and 93.3% who are non-members of farming organizations. For small-scale farmers it is important for them to form part of an organization in order for them to get access to credit which they can use to buy new improved inputs, especially seed to increase technical efficiency. Since inputs are expensive they can form a group and buy in bulk as it becomes cheaper compared to individual purchases. They can also have access to extension officers as they are able to help a group of farmers and not individuals.

4.2.10 TEFF PROFITABILITY

Profit from Teff production is likely to influence the farmer`s technical efficiency. If there is no profit, naturally the farmer will not invest. Since Teff is a staple food it can be profitable or not. Figure 4.9 below indicates how the profitability of Teff is distributed amongst small scale farmers.

FIGURE 4.9: FARMERS' PERCEPTION ON TEFF PROFITABILITY

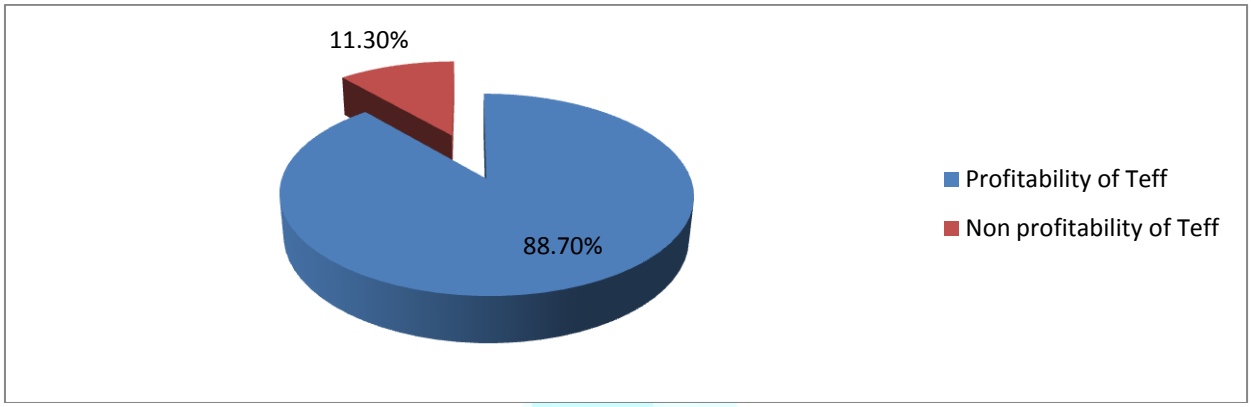


Figure 4.9 indicates that 88.3 % of the farmers see Teff as a profitable product as they no longer buying Teff meal from shops. They process their own Teff product after harvest through the miller, and the processing cost is reasonable. However, 11.7 % perceive Teff as not profitable. For the small-scale farmers it is very important to know if Teff is profitable or not in order to make informed choices with regard to production inputs. This variable has a relationship with the surplus output after consumption.

4.3 COBB-DOUGLAS PRODUCTION FUNCTION MODEL RESULTS

Table 4.2 presents the results of a Cobb-Douglas production function as described in chapter 3. The main reason for using Cobb-Douglas production function is to determine the technical efficiency of Teff production by small-scale farmers in Raya Alamat District. There are a number of variables that are known to affect agricultural production. As a result, it is important to use a model that relates production to those variables for better understanding of the functional relationships.

The results indicate that out of 5 variables/inputs used in the Cobb-Douglas, 3 were found to be significant with 1 being negatively significant. This implies that there is an input to output relationship. Paragraphs below Table 4.2 interpret the Cobb-Douglas results.

TABLE 4.3: COBB-DOUGLAS PRODUCTION FUNCTION MODEL RESULTS

Variable	Standard Error	Coefficient of Elasticity	t-ratio
Constant	190.598		2.990
Land (ha)	60.158	0.276***	3.090
Fertilizer (kg)	0.745	0.247**	2.807
Capital (Birr)	0.363	0.177*	1.992
Labour (man days)	0.998	-0.047	-0.535
Seeds (kg)	4.314	0.099	1.127
Sum of β`s	0.398		
Adjusted R^2	0.564		

*, **, *** Significant at 10%, 5% and 1% respectively

4.3.1 ELASTICITY OF PRODUCTION

The results in Table 4.3 show that the estimation of the production function resulted in adjusted R^2 of 0.564, indicating that the independent variables included in the model explain about 56 percent of the variation in the Teff production in Raya Alamata. It sounds that some relevant social factors were not included in the model such as farmers farming experience. However, according to Coudere and Marijse (1991), as cited by Mushenje and Belete (2001), an adjusted R^2 of 0.54 is a good result for the regression of cross- sectional data.

4.3.2 LAND DEVOTED TO TEFF (HA)

The result shows that access to land is important explaining the differentiation in output of each farmer. Land elasticity is positive and significant at 1 % level. This implies that an increase in one hectare of land can result in 28 % increase in the total production of Teff, which means the variable land is more sensitive to the production of Teff.

4.3.3 FERTILISER USED PER FARM (KG)

The elasticity of fertiliser is positively significant at 5 % level, even though not all small-scale farmers have access to fertiliser. The implication is that input contributes positively to the production of Teff in Raya Alamata. The results show that output is more sensitive to fertiliser, which implies that a one percent increase in the quantity of fertiliser used will lead to 24.7 % increase in the total output of Teff. It simply means that fertiliser used by small-scale farmers in the production of Teff is more effective and efficient. At this stage farmers are under-utilising fertiliser.

4.3.4 CAPITAL (BIRR)

Cost of tractor hours was used as a proxy for capital. The elasticity coefficient of capital is positive and it is significant at 10 % level, which explains that the input is important but farmers are under-utilising it in the production of teff. This indicates further that small-scale teff producers at Raya Alamata operate in the stage 1 of the neo-classical production function. This implies that an increase in the use of this input leads to an increase in the level of teff production.

4.3.5 LABOR (MAN DAYS)

The elasticity of labour is negative and not significant in the production of teff. It means input is not used efficiently. The result indicates that farmers are over-utilising this input, implying that they should reduce the use of this input as it responds less to output, meaning a decrease by 1 % of this variable will result in a 5 % decrease in the output losses. The negative sign implies that an increase in the use of these inputs leads to a decrease in the level of teff production and technical efficiency.

4.3.6 SEEDS USED PER FARM (KG)

The elasticity of seeds is positive, but lower and not significant. The results indicate that farmers are under-utilising this variable. It further means one percent increase in the quantity of seed for teff, holding all other inputs constant, will results in 10.8 % increase in teff output. The variable "seed" is sensitive to the total output of teff, meaning that there is an input to output relationship.

4.3.7 RETURN TO SCALE

For constant return to scale, the sum of the technical coefficients β and α must be equal to one (1), for increasing return to scale, they must also be greater than one, and for decreasing return to scale they must be less than one (1). The regression results as shown in Table 4.3, the sum of β `s is less than one (1), simply indicating that a decreasing return to scale. This maybe implying that the resources used for the small-scale teff production at household level are price output below marginal cost. It means they are over-utilised, which results in them being technically inefficient in the production of teff. Return to scale was calculated by adding up the coefficient for elasticity of each variable, the sum of β `s is used as an indicator of return to scale.

It means that the cost per unit of input used in the production process of an output of teff is more than the return from that output of teff. It indicates some inefficiency as they are spending more on inputs than they should in view of the output, given that their livelihoods depend on farming. As a result, they over-invest resources with the assumption that they can maximize output and thereby returns.

They are incentives for farmers to decrease the amount of inputs used, since farmers experience decreasing returns to scale, in order for farmers to reach the point where the cost per unit of inputs used is equal to per unit of output/returns.

4.4 LOGISTIC REGRESSION MODEL RESULTS

In this section, results of the test for significant and non-significant of the determinants of whether a farmer is efficient/not were given. Logistic model was used in Table 4.3 below which displays the estimated results for the logistic regression model to explain the socio-economic factors influencing technical efficiency of teff production. The variables which are significant and non-significant are represented.

TABLE 4.4: LOGISTIC REGRESSION RESULTS

Variable	Coefficient	Stard. error	Wald	Significant
GEND	0.427	0.547	0.009	0.435
AGE	-0.245	0.564	0.189	0.663
EDUC	0.591*	0.373	2.505	0.114
HHS	-1.465***	0.360	16.563	0.000
INCH	0.690**	0.303	5.207	0.023
FAREXP	0.042*	0.029	2.165	0.141
FARSZ	0.587***	0.182	10.365	0.001
HIRLAB	0.747	0.552	1.829	0.176
TRACTCOS	-0.016***	0.005	11.776	0.001
FERTUS	1.119*	0.618	3.277	0.070
PURCHS	-0.954*	0.647	2.178	0.140
FARORG	2.839**	0.403	4.094	0.043
MPROF	-1.433*	0.902	2.526	0.112
Constant	4.477	2.511	3.178	0.075
-2 log likelihood	99.326			
R squared	53%			
% cases correctly predicted	75.0%			
Chi squared	38.5			

*, **, *** significant at 10%, 5% and 1% respectively.

The results indicate that out of all the variables that were included in the model, most of them are significant which are: level of education (EDUC), household size (HHS) income of the household on monthly basis (INCH), farmer`s farming experience (FAREXP), farm size (FARSZ), cost of tractor hours (TRACTCOS), fertilizer application (FERTUS), purchased hybrid Teff seeds (PURCHS), membership to farmers` organization (FARORG), Teff profitability (MPROF).

This shows that these are the most major factors influencing technical efficiency of small-scale Teff producers in the study area.

The principle assumption, on which the -2 log likelihood ratio is based, is that there are socio-economic characteristics that influence technical efficiency of small-scale Teff producers in Raya Alamata. The log likelihood ratio of 99.326 in Table 4.3 rejects the null hypothesis, which reveals that there are no socio-economic characteristics that influence technical efficiency of small-scale Teff producers in Raya Alamata. The model is correctly predicted at 75 %. This implies that 25 % of the variables are insignificant but are included in the final analysis, which explains the relationship between the dependent and explanatory variables. The model chisquared at 38.5 indicates the significant of 1% level, meaning that there is a significant relationship between the independent variables and the dependent variable. Pseudo R^2 was 53 %.

Based on the regression analysis in table4.3, we are now in a position to explain the variables that are significant in the model.

LEVEL OF EDUCATION

The level of education is positive and significant at 10% level. This implies that it has a positive relationship with technical efficiency. Greater schooling could potentially enhance farm efficiency, either through acquisition of knowledge relevant to agriculture and the usage of available resources efficiently. Education of the farmer is expected to have an effect on farm resources use and the ability to adopt new technology and hence have a positive impact on technical efficiency (Ogolla and Mugabe, 1996).

HOUSEHOLD SIZE

Household size is significant at 1% level, which happens to be the most significant variable, but negative. Labour input replaces capital input and the majority of family labour is applied to Teff, so access to family labour is an important catalyst for increasing yield. Therefore, it eases the labour constraint faced by most smallholder farms. However, the result implies that there is negative relationship between household size and technical efficiency.

INCOME OF THE HOUSEHOLD

Income of the household is positive and significant at 5% level, this implies that there is positive relationship between the income of the household on monthly basis and the small-scale technical efficiency. Since most of the small-scale farmers in Raya Alamata are old, they mainly depend on their gifts or remittance for monthly income, which becomes difficult for them to sustain productivity as they are unable to buy inputs.

Income plays a significant role in efficiency since Teff production is labour intensive, this can be through hire labour and hire tractor.

FARMER`S FARMING EXPERIENCE

The variable "farmer`s farming experience" has a positive sign and it is significant at 10% level, with the implication that there is a positive relationship between the farmer`s farming experience and technical efficiency of the small-scale Teff producers. It is assumed that the more experience the farmer has, the better the use of available resources thus has an effect on efficiency and this may contribute to the improvement of technical efficiency.

FARM SIZE

The variable farm size is positively significant at 1 % level, which tends to be one of the most significant variables found. The implication is that there is a positive relationship between farm size and small-scale Teff producers` technical efficiency. Land plays a vital role in farming with an impact on productivity and efficient, as one of the most available resources one can use efficiently. The size of the farm is based on the size of land used for Teff production by the household.

Access to land is by far the most important variable, explaining the differentiation in output. Amos (2007), Raghbendra *et al*., (2005) and Barners (2008) found the relationship between land holding size and efficiency to be positive.

COST OF TRACTOR HOURS

Cost of tractor hours used by the farmer has a negative sign, but it is significant at 1% level. The implication is that there is a negative relationship between the cost of tractor hours and technical efficiency. Even though is one of the most significant variables in the model, it can negatively influence efficiency on Teff production as one can prefer using traditional method of ploughing than a tractor.

FERTILISER APPLICATION

This variable has a positive sign and it is significant at 10 % level. Fertiliser plays an important role on Teff production. This implies that the use of fertiliser influence technical efficiency. Therefore, there is a positive relationship between fertiliser and technical efficiency of small-scale Teff producers at Raya Alamata. The use of chemical fertiliser is known to be commonly used method in improving productivity and in the intensification of agricultural production as a whole; it also plays a big role in regions where the scarcity of farm land is a big problem. However, the appropriate use of these fertilisers is very important in achieving farm efficiency (Hopper, 1965).

PURCHASED HYBRID TEFF SEED

This variable is significant at 10 % level, but it has a negative sign. It means that if a farmer buys certified seeds instead of using the recycled seeds, a farmer may tend to maximise output. There is a negative relationship between purchased hybrid Teff seeds and the small-scale Teff producer`s technical efficiency. However, purchased hybrid Teff seeds can still influence efficiency positively, since the use of improved seed in crop production is one way of increasing productivity in terms of quantity and quality (Kiplan`at, 2003).

FARMERS' ORGANIZATION

The farmers` organisation is positively and it is significant at 5% level, which implies that a farmers` organisation plays an integral role in Teff production and efficiency.

Through dissemination of recent agriculture information to other farmers, they can buy seeds in bulk and share; negotiate cost of tractor as they will be using one tractor as a group. Therefore, this may have an impact on smallholder as many become efficient. This means that farmer's organisation influences technical efficiency and there is a positive relationship between farmer's organisation and the technical efficiency of small-scale Teff producers.

TEFF PROFITABILITY

The variable is significant at 10% level and has a negative sign. The implication is that the probability of the small-scale farmers to be technically efficient is not determined by farmers` perception on Teff profitability, since small-scale farmers only produce for home consumption not for the market. There is a negative relationship between the profitability of Teff and technical efficiency.

5. CONCLUSION AND RECOMMENDATIONS

This chapter summarises the main findings of the study and concludes on the basis of the findings derived from the empirical results. However, the chapter discusses the extent to which objectives and hypotheses posed at the beginning of the study have been addressed by the analysis. This chapter also generates the recommendations on the basis of the results.

5.1. CONCLUSION

Hypothesis 1: Small-scale teff producers in Alamata are not technically efficient. The findings of this study provide support for this hypothesis. Therefore, the hypothesis is not rejected since the empirical analysis have indicated that there is decreasing returns to scale which means that farmers are over-utilising some of the factors of production/resources used in the production of teff.

Hypothesis 2: There are no socio-economic characteristics influencing the technical efficiency of small-scale teff producers in the study area. The hypothesis is rejected as the empirical results show a positive influence of socio-economic factors in technical efficiency. Variables that were found to be highly significant are: household size, farm size, cost of tractor hire, income of the household on monthly basis and membership to farmers` organisation.

In general, the study concludes that farmers are technically inefficient since they are over-utilising resources at farm level, and that farmers` technical efficiency can be determined through the influence of certain socio-economic factors.

5.2 RECOMMENDATIONS

The recommendations discussed below are on the basis of the findings of this study.

To avoid technical inefficiency amongst small-scale teff producers, the study recommends the need to adopt modern agricultural technology such as improved teff varieties/purchased, seed hybrid teff and fertiliser usage should be governed by a complex set of factors such as human capital improvement and institutional support. This will make sure that people in rural areas, specifically small-scale farmers who practice subsistence farming which are mainly found in the Raya Alamata improve their standards of living.

The study also recommends that the government should not only include the Land redistribution and restitution for agricultural development project on the capacity building programme, but it should also include those farmers who are practicing subsistence farming by training and giving them skills on how to allocate resources efficiently such as fertilisers and seeds during the production periods, farmers also need to have access to enough arable land and tractor services. Since safe net programme already exists in the government, the study recommends that the government should intensify and roll-out the safe net programme to reach more small-scale subsistence farmers in the study area.

It is also recommended that extension services in the area should intensify their efforts to assist small-scale farmers, to overcome the challenges of economic scale and technical efficiency. Also help farmers with the creation of farmers' organization, since the findings have shown that only fewer farmers have membership to farmer's organization. Small-scale farmers need help in a number of areas as the discussion as shown, areas such as education and credit facilities. Subsistence farming in Ethiopia and indeed in many developing countries provides employment as well as food. In other words, this type of farming contributes significantly in the economic health of a country. It is therefore important that the government fully participate in assisting such community efforts.

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IMPORTANCE OF BRANDING FOR SOCIAL ENTERPRISES

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ABSTRACT

Today market is full of competition with local and international companies selling similar products and services, so branding the product and services become very important to gain attention and to differentiate the products and services from others. A brand is a tool that is used in the business world to describe the information or perceptions that are connected with a product or a service. Businesses are not done on their own; in order to fulfill the mission and the objectives, an enterprise must need others. In a market full of competition where all the enterprises already have a brand: the images and attributes others associate with them. The trick is to proactively manage the brand. If an enterprise doesn't know what to do, how to use a brand to capture market then they will not be able to sustain. Branding is important to move the target audiences towards an enterprise so that they can take a positive action towards a brand leaving all other brands behind. It protects a seller's products against those marketed by competitors and imitators and helps consumers identify the quality, consistency, and imagery of a preferred source. Customers view a brand as an important part of a product and branding can add value to a product. The paper focuses on the essential elements that an enterprise should keep in mind while giving a brand name to their products or services.

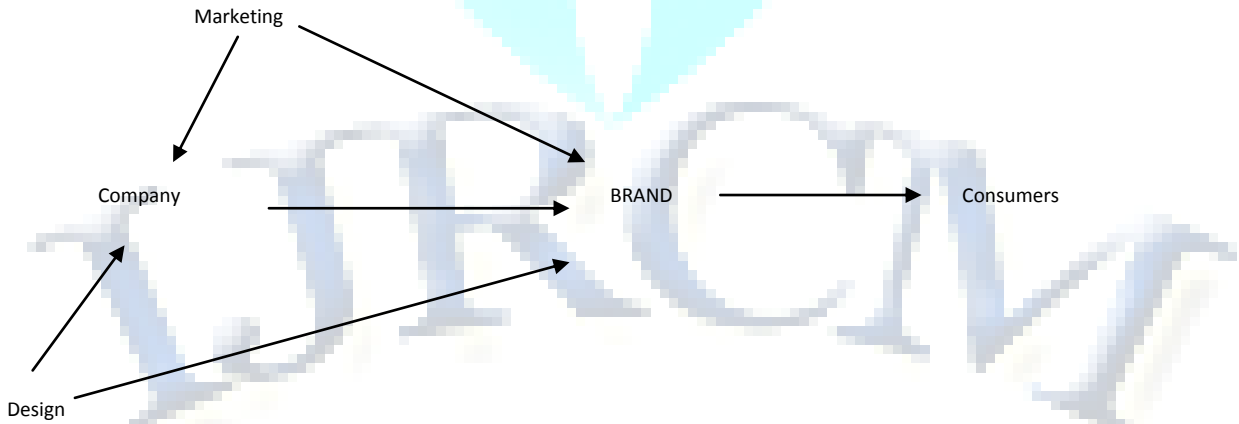
KEYWORDS
Brand, Branding, Products, Services, Social Enterprises.

INTRODUCTION

Now a day everybody is talking about the make of a product. Branding has emerged as a top management priority in the last decade due to the growing realization that brands are the most intangible assets that enterprises have. The word Branding is a part of our everyday language. Branding is an effort to give a unique identity to the company's products and create emotional associations with consumers. It is a form of marketing. It is a plan for earning product reputation and making sure that the world knows about it and believes in it. A brand is a set of associations that are linked to a product range, a division, or an enterprise. These associations reside in the memory of customers. These associations help the customers to understand the following:

- what the brand or an enterprise is,
- why the brand is relevant to an enterprise,
- how it is different or similar to other products made by an enterprise,
- how it is similar or different from competitor's products.

Branding is a combined effort of the company which is projected to the consumers.



Because of branding, customers form certain images when they think of products or services. When the customers see the brands they associate them with the set of expectations or perceptions.

For example **Nike Swoosh (associated with Nike)**: tough athletes at the height of their performance

Apple logo (associated with Apple computers): cutting edge technology

The Golden Arches (associated with McDonalds): fast service and good food

Products and services have become so similar that they fail to distinguish themselves by their quality, efficacy, reliability, assurance and care. Brands add emotions and trust to these products and services, by providing clues that simplify consumer's choice. These added emotions and trust helps to create a relationship between brands and consumers, which ensures consumer's loyalty to the brands. Brands create inspirational lifestyles based on these consumer relationships. Associating oneself with a brand transfers these lifestyles onto consumers. The branded lifestyles extol values over and above the brand's product or service category that allow the brands to be extended into other product and service categories. Thus saving companies from the trouble and costs of

developing new brands, while entering new lucrative markets. The combination of emotions, relationships, and values allows brand owners to charge a price premium for their products and services, which otherwise are barely distinguishable from generics.

BRANDING BASICS FOR SOCIAL ENTERPRISES

Business Objectives

- Target Audiences
- Key Messages
- Distill the Essence
- Build Everything on Top of That: the Discipline of Focus or, leveraging the heck out of the competitive advantage

MAIN ELEMENTS OF BRANDING FOR SOCIALENTERPRISES

- What is the project about? What is the product / service mix?
- What are the business objectives? What do you want to accomplish with this project.
- Who is the target market? What is the key insight about the target?
- What would the target say now? How would the target describe the company?
- What do we actually want the target to say about us i.e. the response we want to have?
- What is the strategic insight? Or, what is the "concept" of the message, why should the target care? Why should the target believe this?
- What is the personality of the brand and tone of the communication?

POSITIVE IMPACT OF BRANDING

Some positive impact of branding that an enterprise should keep in mind:

RECOGNITION AND LOYALITY: - The main benefit of branding is that customers are much more likely to remember what a product or service is. A strong brand name and logo/image helps the customers to keep company image in the mind.

IMAGE OF SIZE: - A strong brand will project an image of a large and established business to the potential customers. For example The Coca Cola Company uses the brand name Coca Cola and BBC is the brand name for the British Broadcasting Corporation.

IMAGE OF QUALITY: - A strong brand projects an image of quality to the business of an enterprise, many people see the brand as a part of a product or service that helps to show its quality and value.

IMAGE OF EXPERIENCE AND RELIABILITY: - A strong brand creates an image of an established business that has been around for long enough to become well known.

NEGATIVE ASPECTS OF BRANDING

Negative aspects of branding includes the following

COST: A strong brand can involve a lot of design and marketing costs.

IMPERSONAL: One of the main problems with many branded enterprises is that they lose their personal image.

FIXED IMAGE: Every brand has an image in the customers mind, and part of that image is about what products or services an enterprise sell.

TIMESCALE: The process of creating a brand will take a long time. As well as creating a brand and updating the signs and equipment an enterprise need to expose it to their potential customers needs lot of time.

BRANDING TIPS FORSOCIAL ENTERPRISES

The top ten tips of branding for Social Enterprises are as following

1. **WHAT'S THE BIG IDEA:** A brand must communicate what makes an enterprise different and special.
2. **PLUS AND MINUS:** A good brand can be a negative brand; a positive brand can be a weak brand; a best brand is both strong and positive.
3. **HONEST:** Brand values should be genuine, motivational and relevant.
4. **LOGO NO-GO:** A good brand is not just a logo or a set of colors but it is everything that the customer feels, thinks, reads, imagine about the products and services from an enterprise.
5. **WE THINK TOO MUCH AND FEEL TOO LITTLE (CHARLIE CHAPLIN):** A good brand must engage the customers to an emotional level. If it fails it's not the right solution.
6. **IT'S ALL ABOUT NAME:** Finding a brand name can be tricky and take time. For selecting the brand name, following four directions should be followed
   Does what it says on the tin
   Make an emotional connection
   Based on real name of places and people involved
   Make up words that are memorable and emotive
7. **GOOD CALL!**
8. For a social enterprise, business is driven for a social purpose. So it is necessary for an enterprise to express itself through a brand in an authentic and effective way.
9. Never copy the name of a brand. Always check the availability of a proposed name by searching on company's house or searching online to see if the URL is taken or by getting advice from specialist Trade Mark Lawyers.
10. GROWING UP: Like people, brands don't stand still. They develop just like any other personality. Some aspects will stay the same but some will develop and change over time.

DO'S AND DON'T'S IN BRANDING AN ENTERPRISE

DO'S

DEFINE MISSION: The most important thing is to define, know, and convey the mission, so as to make the communication more consistent. It is important for everyone in the team to know the mission and needs to be able to communicate this in an efficient manner so that the one whom you are communicating understands and gets convinced properly.

BUILD RELATIONSHIPS: The important aspect in branding of social enterprises is to build healthy relationships with people who supply marketing services, with media sales people, with journalists. Get indulge in corporate social responsibilities, do some charity, work with other social enterprises where possible to share advertising or exhibiting costs.

Don'ts

DON'T RELY ON THE SOCAIL ASPECT: Enterprises should not only focus all their attention on social aspect i.e. doing only social responsibilities, but also keep in mind that its fair trade and one has to work with producers and selling is the main function of the product. Some put the social impact first and don't put enough into selling .one should not forget to communicate to customer's that their product is excellent value and quality.

DON'T LACK FOCUS: Doing sales promotions like giving discounts, free gifts etc. is a very successful strategy to strengthen the brand but don't lack focus, don't just give free products to anyone, and be targeted with the campaigns. Just keep check whether it is helping in gaining customer base or only wasting funds in distributing free gifts.

DON'T USE SOCIAL MEDIA FOR THE SAKE OF IT: An enterprise should employ new and better means of technology for advertising and gaining publicity but it is must to regularly analyse whether it serves the business well. They should use resources wisely. It is not always important to use latest and modern techniques for advertising most of the time old techniques serves the purpose well

DON'T BE TOO COMPLICATED: Don't be too complicated while making advertising messages for the business. Use short, simple words which are easily understandable and have greater impact on minds of people.

CONCLUSION

Branding is a promise made to the customers to deliver values beyond expectations. It can be rational or irrational. Customers not only buy brand because of the intrinsic values associated with it but also because that particular brand has surprised them in the past with newer and more novel experiences. Effective branding promotes loyalty to the business of an enterprise. While creating a brand, enterprises must be careful not to lose the image of personal service. Every brand must show the correct image that the enterprise want their customers to see. Thus if branding is carefully thought it could amount to considerable financial success for an enterprise. It is also important because it forces an enterprise to reconsider itself completely and also forces them to encompass all aspects of an enterprise, to think of it as a whole because a brand needs to make sense.

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BITCOIN: AN OVER VIEW IN INDIAN CONTEXT

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ABSTRACT

This paper deals with the origin and evolution of bit coin as an alternate currency and its acceptance in today's commercial world. The protocol and its growth have been discussed in this paper. India is getting very quickly exposed to this new under experiment currency and shows immense potential in adaption of the currency in times to come. How has the Indian euphoria resulted in opening a new exchange in UAE has also been discussed. The social impact of the new found term BITCOIN is likely to be screen adaptation of a work by Ravi Subramanian. The paper also deals with as to why Would One Want to Use Bitcoins and what are the possible potfalls and disadvantages of Bit-coins

KEYWORDS

Bit coin, digital currency, igot, emoney, legal tender, security breach.

INTRODUCTION

Bitcoin is a form of digital currency, created and held electronically. No one controls it. Bitcoins aren't printed. These are produced by millions of (uncountable) people running computers all around the world, with the help of programmes, that solves mathematical problems. If Dan Brown's theme of Da Vinci Code is to be stretched, bitcoins are first example of a growing category of money known as cryptocurrency.

Bitcoin can be used to buy anything electronically. In that sense, it's like any conventional currency.

Bitcoin's prime characteristic, that distinguishes it from conventional money is that it is decentralized. No institution controls the bitcoin network. This puts some people at ease, because it means that any bank large or small can't control their money.

A software developer called Satoshi Nakamoto initiated bitcoin, which was an electronic payment system based on mathematical proof. The idea was to produce a currency outside the control of any central authority, which was easily transferable electronically- almost instantly, with very low transaction fees.

Bitcoin, which is an electronic currency isn't physically printed in the guarded room of a central bank, nor governed by any rules o the central bank.

Bitcoin is created digitally, by a community of people that anyone can join. Bitcoins are 'mined', using computing power in a distributed network.

The Bitcoin protocol – the rules that make bitcoin work – say that only 21 million bitcoins can ever be created by miners. However, these coins can be divided into smaller parts (the smallest divisible amount is one hundred millionth of a bitcoin and is called a 'Satoshi', after the founder of bitcoin).

Globally, people are using several softwares that follow a mathematical formula to produce bitcoins. The mathematical formula is freely available, so that anyone can check it.

INDIAN CONTEXT

Bitcoin in India is showing plenty of promise at the grassroots level, as demonstrated by 250 undergraduate students who attended a seminar at the HR College of Commerce and Economics in Mumbai last Thursday. Those present already demonstrated a basic knowledge of bitcoin and some of its technical aspects such as block chain transparency and mining, according to Vishal Gupta of the Bitcoin Alliance of India, who headed the presentation.

Cashing on the Indian euphoria over the new currency, Multinational bitcoin exchange igot launched the first bitcoin exchange in the United Arab Emirates (UAE), to capitalize on the unique opportunity posed by the market.

The Australia-based company's founder Rick Day told CoinDesk the new exchange will operate with a Commercial Brokerage License, approved by the local government. It has also secured local banking partners for direct deposits and withdrawals in UAE dirhams. The concentration of high net-worth individuals among its citizens, about 60% of the UAE's workforce consists of expat Indian workers, both professional and manual, who often send their money back home.

In fact, foreign citizens make up a staggering 91% of the UAE's population of 9.2 million, with 1 million Indians representing the country's largest overall group.

Day said that, given that India is currently igot's largest market outside Australia, its presence in the UAE puts the company in a very interesting position.

The exchange is aimed more at consumers than professional traders, with a simple buy-sell interface. However, it recently implemented a feature called 'Future Trade' which functions like limit orders on a more advanced exchange, giving customers the option to set their price and wait for bitcoin's value to rise or fall to that level before executing the trade.

Virtual currency and its evolution is also about to hit the big screen. Viacom last week bought film rights for a thriller novel called God is a Gamer, which is based around the virtual currency and takes the reader through events based on reallife incidents in the Bitcoin world.

The author, Ravi Subramanian is a banker and has already written six books, including If God was a Banker, The Bankster, Devil in Pinstripes and The Incredible Banker. Subramanian sees Bitcoin and other crypto currencies as the future of money, though he believes it'll take about 5 years for it to reach the critical mass in India. "I believe Bitcoin is a very convenient way to shop and to transfer money to any account around the world. Governments should work around a framework for th e currency instead of putting restrictions on it," said Subramanian.

ANALYSIS AND DISCUSSION

Bitcoin offers users the advantages of lower transaction costs, increased privacy, and long term protection of loss of purchasing power from inflation. However, there are also a number of disadvantages that could hinder wider use. These include sizable volatility of the price of Bitcoins, uncertain security from theft and fraud, and a long term deflationary bias that encourages the hoarding of Bitcoins. Bitcoin also raises a number of legal and regulatory concerns including its potential for facilitating money laundering, its treatment under federal securities law, and its status in the regulation of foreign exchange trading Reasons For and Against Wider Use of Bitcoin Why Would One Want to Use Bitcoins?

Bit coin purportedly offers three potential benefits to users: lower transaction costs, increased privacy, and no erosion of purchasing power due to inflation.

Lower Transaction Costs for Electronic Economic Exchanges because there is no third-party intermediary, Bitcoin transactions are purported to be substantially less expensive for users than those using traditional payments systems such as Paypal and traditional credit cards, which charge merchants significant fees for their role as trusted third party intermediary to validate electronic transactions. In addition, Bitcoin sales are non-reversible, which removes the possibility for misuse of consumer charge-backs, which merchants find costly. Merchants would presumably pass at least some of these savings on to the customer. While there is considerable anecdotal evidence that this is true, there are no comprehensive data on the size of Bitcoin's transaction cost advantage.

Some of the transaction cost advantage could be offset by the slow speed at which Bitcoin transactions currently occur, which, depending on the size of the transaction, can take a minimum of 10 minutes or as long as an hour.

In addition, Bitcoin's advantage in transaction cost could be offset by the substantial volatility of Bitcoin's price. A rising dollar price of Bitcoin is likely to deter potential buyers who would expect to see their purchasing power be greater in the future. A falling Bitcoin price is likely to deter potential sellers who would expect to see their potential sales receipts be greater in the future.

Increased Privacy is an advantage for those who seek a heightened degree of privacy and they may find more comfort using Bitcoins for their (legal) commercial and financial transactions. The risk of identity theft may also be less, and some may find the removal of government from a monetary system attractive.

However, as discussed above, Bitcoin transactions do not have the anonymity afforded by cash transactions, as there is a permanent and complete historical record of Bitcoin amounts and encrypted identities for all transactions on the Bitcoin system that is potentially traceable. No Erosion of Purchasing Power by Inflation Inflation is defined as a broad increase in the prices of goods and services. This is equivalent to saying that there is a fall in the value of the circulating currency. That fall in value means that each unit of the currency is exchangeable for a reduced amount of goods and services. Inflation is commonly thought to be a monetary phenomenon in which the supply of the currency outpaces the demand for the currency causing its unit value (in terms of what it can buy) to fall. Most often governments (or their central bank) regulate the supply of money and credit and most often some degree of mismanagement of this government function is at the root of a persistent high inflation problem. In the case of Bitcoin, however, there is no government or central bank regulating the supply of Bitcoins. The supply of Bitcoins is programmed to grow at a steady rate regulated by the degree of mining activity (a process likely linked to a growing demand for Bitcoin) and then is capped at a fixed amount. Inflation could occur if the demand for Bitcoin decreases relative to the fixed supply. Inflation could also occur if the Bitcoin network develops fractional reserve banking (i.e., banks that hold only a fraction of their deposits in reserve and lend out the rest), which would also be a vehicle that effectively increases the supply of circulating Bitcoins. If these digital banks move to a situation where held reserves stabilize, this source of inflation would diminish.

What Factors Might Deter Widespread Bitcoin Use?

There are a number of factors that could discourage widespread use of Bitcoin. Not Legal Tender The dollar is legal tender and by law can be used to extinguish public or private debts. A creditor is required to accept legal tender for the settlement of a debt. At a minimum, the payment of taxes forces U.S. individuals to hold dollars. Arguably, for many, such a government endorsement is comforting and creates a strong underlying demand for the dollar. By contrast, a currency like Bitcoin that is linked to a complex computer program that many do not understand and that operates without accountability to any controlling entity, could be an unattractive vehicle for holding wealth for many peopleBitcoins Networks Security Is Uncertain While counterfeiting is purportedly not possible, Bitcoin exchanges and wallet services have at times struggled with security. Cash and traditional electronic payment systems also have periodic security problems, but a high incidence of security problems on a system trying to establish itself and gain customer confidence could be more damaging. Some notable examples of security breaches on the Bitcoin network have included the following:

- Hackers mounted a massive series of distributed denial-of-service (DDoS) attacks against the most popular Bitcoin exchange, Mt.Gox, in 2013. Mt. Gox subsequently declared bankruptcy.
- In late August 2012, an operation titled Bitcoin Savings and Trust was shut down by the owner, allegedly leaving around 5.6 million USD in bitcoin-based debts.
- In September 2012, Bitfloor, a Bitcoin exchange, reported being hacked, with 24,000 Bitcoins (roughly equivalent to 250,000 USD) stolen. As a result, Bitfloor temporarily suspended operations.
- On April 3, 2013, Instawallet, a web-based wallet provider, was hacked, resulting in the theft of over 35,000 Bitcoins. With a price of 129.90 USD per b\Bitcoin at the time, or nearly 4.6 million USD in total, Instawallet suspended operations.
- On August 11 2013, the Bitcoin Foundation announced that a bug in software within the Android operating system had been exploited to steal from users' wallets.
- October 23 and 26, 2013, a Bitcoin bank, operated from Australia but stored on servers in the USA, was hacked, with a loss of 4,100 Bitcoins, or over 1 million AUD.

As of now, Indian laws do not recognise any type of digital or virtual currency. The Foreign Exchange Management Act (Fema) provides an inclusive definition of the term currency and includes all currency notes, money orders, cheques, credit cards and such other similar instruments as may be notified by RBI. It is interesting to note that Fema gives RBI the power to notify "similar instruments" as currency.

In 2000, RBI had notified ATM Cards and debit cards as currency. Therefore, RBI has the power under Fema to also notify Bitcoins as currency if it is able to justify that it is similar to currency notes, credit cards, etc.

RBI, in its press release on December 24, 2013, had warned that the creation, trading or usage of virtual currencies, including Bitcoins, as a medium for payment is not authorised by any central bank or monetary authority. However, it has not banned the use of Bitcoins in India as such. There was also no comment regarding the classification of Bitcoin as a currency in the press release, but former finance minister, P Chidambaram, had given a statement that RBI was examining the issues relating to the usage, holding and trading of virtual currencies, including Bitcoins, under the extant legal and regulatory framework of the country. Different countries have adopted different approaches regarding the classification of Bitcoins as "currency".

In Germany, Bitcoin is not classified as a foreign currency or emoney, but stands as a financial instrument. In the United States, the Internal Revenue Service considers Bitcoin as a form of 'property' rather than a currency for tax purposes.

However, the United States District Court (Eastern District of Texas) has recently ruled that Bitcoin is a currency or form of money. Therefore, it appears that there is confusion regarding the treatment of Bitcoins in other countries as well and perhaps, RBI is waiting for a cue from the international developments.

CONCLUSION

A bona fide currency functions as a medium of exchange, a store of value, and a unit of account, but bitcoin largely fails to satisfy these criteria. Bitcoin has achieved only scant consumer transaction volume, with an average well below one daily transaction for the few merchants who accept it. Its volatility is greatly higher than the volatilities of widely used currencies, imposing large short-term risk upon users. Bitcoin's daily exchange rates exhibit virtually zero correlation with widely used currencies and with gold, making bitcoin useless for risk management and exceedingly difficult for its owners to hedge. Bitcoin prices of consumer goods require many decimal places with leading zeros, which is disconcerting to retail market participants. Bitcoin faces daily hacking and theft risks, lacks access to a banking system with deposit insurance, and it is not used to denominate consumer credit or loan contracts. Bitcoin appears to behave more like a speculative investment than a currency. In the context of India Bitcoin usage will require high regulation as the fear of the actual currency being over taken by the virtual currency will be high.

As regards Indian context, it is viewed that although Bitcoins are accepted by major companies such as Expedia, Dish Network, Overstock, etc. and the India website highkart.com provides the facility to pay with Bitcoins only, it is not a universal medium of exchange. The other major concerns regarding the use of Bitcoins as a currency are the lack of an underlying legal framework, the extreme volatility in its value of a Bitcoin and the fear that it could be used for money-laundering transactions. The lack of a clear underlying legal framework is particularly worrisome.

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