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INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESIS (ES)

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

LIMITATIONS

SCOPE FOR FURTHER RESEARCH

REFERENCES

APPENDIX/ANNEXURE

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ADOPT A HERITAGE PROJECT: A FUTURISTIC MANAGEMENT APPROACH

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ABSTRACT
Importance of something can be understood by the care and attention provided to it, the vice-versa of it also mean the same. 'ADOPT A HERITAGE: APNI DHAROHAR, APNI PEHCHAAN' project initiated by the Government of India on 27 September by honorable President Shri Ram Nath Kovind for the proper management of heritage sites and monuments which in turn attracts more domestic as well as foreign visitors. This movement is an effective one as the structure of the project is not rigid but very flexible in terms of adoption of ideas and techniques from every possible entity for making our heritage sites a better and more attractive places for the visitors. Under this project proposals and bids are invited from various public and private sectors organizations and individuals with fresh, feasible and fruitful ideas, the best proposals are selected are Memorandum of Understanding will be signed with them. This research paper will analyze the entire project and find the future scope for this project.

KEYWORDS
heritage sites, heritage monument.

JEL CODES
L17, R39.

INTRODUCTION
This is the first time when Government of India has come out with an innovative project for the heritage sites of our country, when any organization whether public or private or an individual all are having equal opportunities to present their fresh and innovative ideas for the proper management of heritage sites and monuments, so as to enable all the facilities and amenities to the visitors which leads to increase in number of both domestic and foreign tourists. Adopt a Heritage: Apni dharohar, Apni pehchaan, project launched on 27 September 2017 by honorable president Mr. Ram Nath Kovind on the occasion of World Tourism Day as a gift to the heritage sites in the form of new paradigms of management practices which is having the capability to secure their future by their sustainable existence. Government of India in collaboration with Archeological Survey of India and Ministry of Culture has framed the guidelines and the overall structure of the project involving systematic and smooth procedures. The project has been started under the supervision of Ministry of Tourism with the aim "Project for Development of Tourist Friendly Destinations". A well managed and informed website has been created for providing all the necessary information related with the project as it is new for all, so a structured website with sufficient and required information is a great move to make the project accessible for every common person; the URL of the website is http://www.adoptaheritage.in/.There are many different and unique terms used for this project and it is really difficult for a common person to understand them. Some of the terms are described here

- Monument Mitras – The organizations whether public or private or an individual whoever selected by the process of vision bidding for adopting the heritage sites will be called Monument Mitras. These Monument Mitras are required to sign a Memorandum of Understanding with the Government of India, Ministry of Culture and Archeological Survey of India.
- Vision Bidding – A systematic process by which the proposals and bids presented by the bidders to be evaluated and the selection of Monument Mitras are done is Vision Bidding. The process will be carried out by different committees at different levels and the committees will involve the eminent and experienced persons of intelligence.
- Asset Service level Guidelines – These are the series of necessary guidelines provided by the project instructors for providing an idea and limitations under and according to which the Monument Mitras are supposed to work and perform their responsibilities. These are the standards set for the Monument Mitras.
- Expression of Interest – There is a predefined format designed for the bidders for submitting their proposals and bids for fighting in the race of becoming monument Mitras. They are supposed to follow the process systematically and submit their proposals. This complete process of submission of proposal is known as Expression of Interest.

RESEARCH OBJECTIVES
1. To study the feasibility of the project "Adopt a Heritage".
2. To analyze the project by means of SWOT analysis.

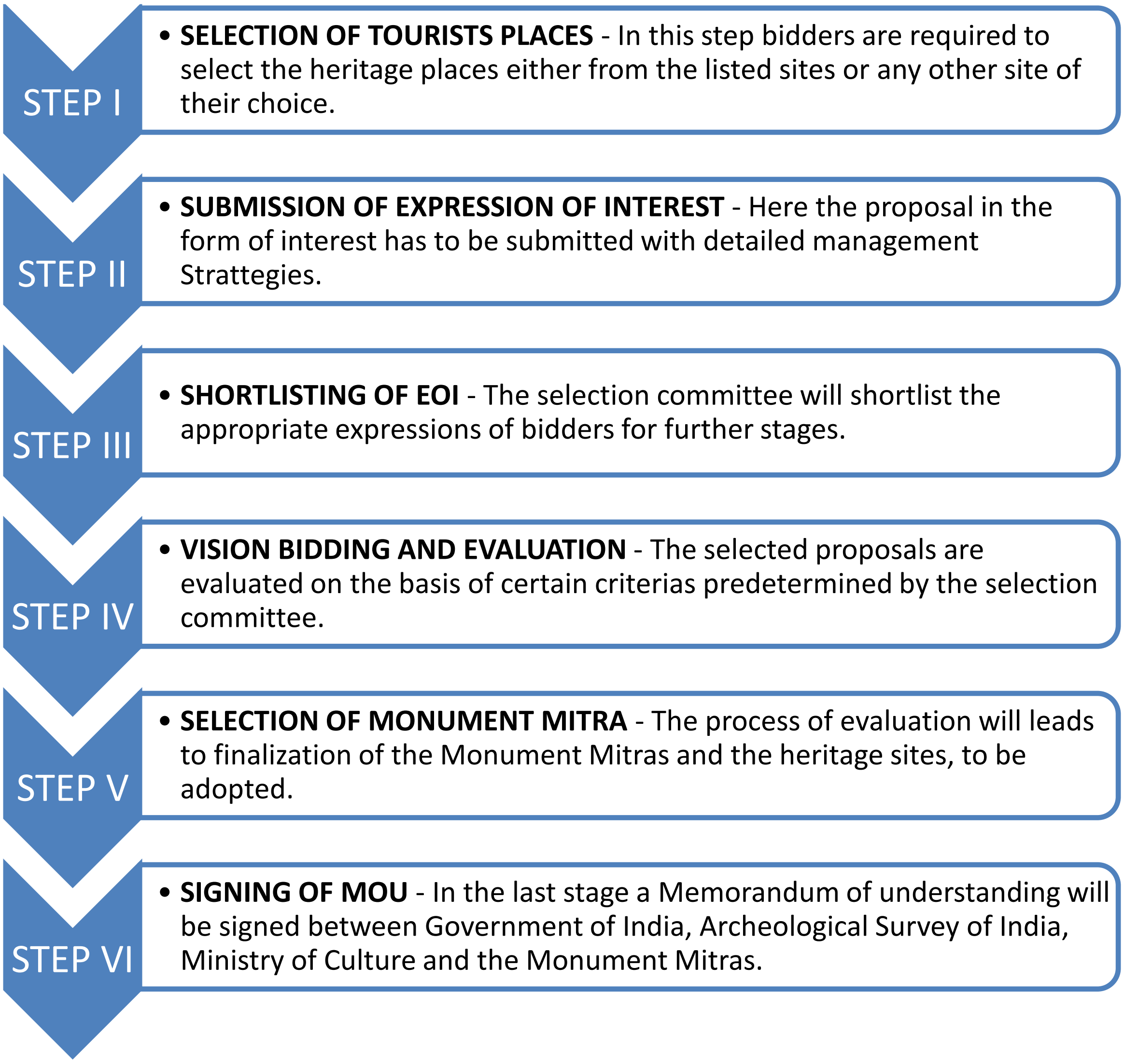
RESEARCH METHODOLOGY
Nature of research - The research is descriptive in nature.
Data – The type of data used in the research is secondary which is mostly collected from the official website of the project of the project "Adopt a heritage".
Archeological Survey of India has identifies 93 heritage sites and Monument for this project which will be adopted by the Monument Mitras. These heritage sites are selected from the whole India and have been categorized in three categories Green, Blue and Orange. The classification has been done on the bases of number of visitors visiting the sites in a year and for the calculation latest figures has been used. The heritage sites put under Green belt are having greatest amount of visitors, Blue belt heritage sites is having lesser visitors than Green and the orange belt heritage places are having the least number of visitors. The complete list of 93 heritage sites and monument is presented in the table below:

TABLE 1: CATEGORIZED LIST OF SELECTED HERITAGE SITES

GREEN	BLUE	ORANGE
TAJ MAHAL, AGRA	AKBAR'S TOMB, SIKANDRA, AGRA	ITIMAD-UD-DAULA, AGRA
FATEPUR SIKRI,AGRA	MEHTAB BAGH AGRA	RAM BAGH, AGRA
AGRA FORT, AGRA	DAULATABAD FORT, DAULATABAD, AGRA	MARIYAM'S TOMB AGRA
ELLORA CAVES, AURANGABAD	AJANTA CAVES, AURANGABAD	CAVES, TEMPLES AND INSCRIPTIONS, BHAJA, PUNE
BIBI KA MAQBARA, AURANGABAD	KARLA CAVES, KARLA, PUNE	KOLABA FORT, MUMBAI
ELEPHANTA CAVES, GHARAPURI, MUMBAI	AGA KHAN PALACE, PUNE	LENYADRI CAVES, PUNE
BUDDISHT KANHERI CAVES, MUMBAI	SHANIWARWADA, PUNE	BUDDIST MONUMENTS, SANCHI, RAISEN
DARIA DAULAT BAGH, SRIRANGAPATNAM	TIPU PALCE, BANGALURU	ROYAL PALACES, MANDU
WORLD HERITAGE SITE, HAMPI	ZANANNA ENCLOSURE, VITTALA TEMPLE, HAMPI	RAJA RANI TEMPLE BHUBANESHWAR
WESTERN GROUP OF TEMPLES, KHAJURAHO	GWALIOR FORT, GWALIOR	RATNAGIRI MONUMENTS, JAIPUR
SUN TEMPLE, KONARK	UDAYAGIRI AND KHANDAGIRI SITES, BHUBANESHWAR	FRONT MUSEUM, THIRUMAYAM
GROUP OF MONUMENTS, MAMALLAPURAM	SHEIKH CHILLI'S TOMB, THANEAR	ROCK-CUT-JAIN TEMPLE, SITTANASAL
QUTUB MINAR, DELHI	SURAJKUND, FARIDABAD	KHAN-I-KHANA, DELHI
HUMAYUN'S TOMB, DELHI	GINGEE FORT, VILLUPURAM	KOTLA FIROZ SHAH, DELHI
RED FORT, DELHI	JANTAR MANTAR, DELHI	AHOM RAJA'S PALACE, GARHGAON
GOL GUMBAZ, BIJAPUR	SAFDARJUNG TOMB, DELHI	GROUP OF FOUR MAIDANS, CHERIODEO, SIBSAGAR
JAINA AND VAISHNA CAVES, BADAMI	PURANA QILA, DELHI	RAJA MAHAL AND RANI MAHAL, CHITOOR
KARENGHAR OF AHOM KINGS, SIBSAGAR	GROUP OF MONUMNETS, PATTAKADAL	NAGARJUNAKONDA HILLTOP, NALGONDA
GOLKONDA FORT, HYDERABAD	DURGA TEMPLE, AIHOLE	CAVES AND STUPA, GUNTUPALLY, PREKASAM
CHARMINAR, HYDERABAD	RANGHAR PAVILION, SIBSAGAR	BUDDIST STUPA, AMRAVATI
CHITTAURGARH FORT, CHITTAURGARH	WARANGAL FORT, WARANGAL	REMAINS OF PATLIPUTRA, PATNA
KUMBHALGARH FORT, RAJSAMAND	ROCK CUT HINDU TEMPLE, GUNTUR	PALACE COMPLEX AT RAMNAGAR, UDHAMPUR
HAZARDUARI PALACE MUSEUM, MURSHIDABAD	DEEG PALCES, BHARATPUR	GROUP OF TEMPLES, KIRAMCHI
RESIDENCY, LUCKNOW	COOCH BEHAR PALACE, COOCH BEHAR	OBSERVATORY AN SINGH, VARANASI
MONUMENT OF SRAVASTI, SAHET-MAHET	BISNUPUR GROUP OF TEMPLES, BANKURA	LORD CORNAWALLIS TOMB, GHAZIPUR
EXCAVATED REMAINS NALANDA	RANI JHANSI QILA, JHANSI	
LAXMAN TEMPLE SIRPUR	KALINJAR FORT, BANDA	
MATTANCHEERY PALACE MUSEUM, ERNAKULAM	SHERSHAH SURI'S TOMB, SASARAM	
SUN TEMPLE, MODHERA, MAHSANA	ANCIENT SITE OF VAISHALI, KOLHUA	
RANI-KI-VAV, PATAN	BEKAL FORT, PALLIKKARE	
KANGRA FORT, KANGRA	CHAMPANER-PAVAGARH ARCHEOLOGICAL PARK, PANCHMAHAL	
BUDDISHT SITE, SARNATH	BUDDIST CAVES, JUNAGARH	
	AVANTISWAMI TEMPLE, AVANTIPUR	
	LEH PALACE, LEH	
	ROCK CUT CAVES MASRUR	
	JAUNPUR FORT, JAUNPUR	
TOTAL : 32	**TOTAL : 36**	**TOTAL : 25**

It depends upon the Monument Mitras that how many heritage sites they want to adopt and from which category but those who are opting heritage sites from green belt, they are also required to adopt some sites from blue and orange belt as well; and the Monument Mitras who are opting heritage sites form blue or orange belt are not bound to adopt any sites from green belt as the Heritage sites from green belt required comparatively less attention as compared to blue and orange. Adopting heritage sites from blue and orange belt will provide more weightage to the Monument Mitras which means it is beneficial to adopt sites from these belts but only when the Monument Mitras are having very effective strategies to manage these sites as they are comparatively less famous and attracts less visitors. The adoption of heritage sites or monuments is not restricted to this list of 93 sites but if the Monument Mitras wants to adopt any other heritage site and are having good planning for it then they can adopt the heritage sites of their choice also. The entire process is a systematic one including several stages and each stage has its own importance. The competing bidders have to fill the form available on the website on the link of submission of interest where there are much needed and detailed information is enquired from them based on which the selection committee will decide to convert the bidders as Monument Mitras.

CHART 1: PROCESS OF SELECTION OF MONUMENT MITRA



The entire process of the selection of Monument Mitras consists of these six stages which selects the deserving Monument Mitras. The selected Monument Mitras will be appreciated by including their names under this project in the website of Incredible India and by showing their presence by various means at their adopted heritage places; the aim here is to achieve the goal with synergy which in turn benefits all the Heritage Sites on the first place, the Government at the second place and the Monument Mitras also.

Instructions in the form of Guidelines are essential while moving for a new work as they provide an idea and a path ahead; all you need to do is to process the idea and make a way to move on the path of success. Adopt a heritage project has issued some Guidelines which are collectively known as Generic Guidelines for Accessible Monuments under ASI (GAMASI) for facilitating the Monument Mitras with the basic parameters of the all the management activities which have to be considered as standards while performing the work. The guidelines cover following areas

- Guidelines for Accessible website, Information/ Communication services.
- Guidelines for Access route to premises and site entrance gate.
- Guidelines for Tactile Guiding path, Warning Tiles and Tree Gratings and Guardrails.
- Guidelines for Accessible Parking.
- Guidelines for Ticket and Service Counter.
- Guidelines for External pathways/ Circulation and landscape areas.
- Guidelines for Internal Circulation.
- Guidelines for Toilet Facilities.
- Guidelines for Drinking water facilities.
- Guidelines for Publication counter.
- Guidelines for Torch Tour.
- Guidelines for Light and Sound Shows.
- Guidelines for Signage/ Wayfinding.
- Guidelines for Interpretive Information.
- Guidelines for Emergency Evacuation.
- Guidelines for Managing Accessibility.

These are general headings under which there are several sub-headings and each with defined instructions. These guidelines are very specific in nature and clear in terms of meaning and understanding. These will provide support to Monument Mitras for letting no scope for mistakes and imperfections; even very small things are being taken care of while forming them as the objective is very clear i.e. making the heritage places a visitor friendly place with the facilities and amenities. The Monument Mitras are required to do a survey and submit the report informing about the problems with the management of heritage sites and various reasons for their non-performance, this will be considered as their homework which will definitely reflects the sincerity and efficiency of the Monument Mitras as solutions are only appropriate when the problems are taken in the correct manner and form. This survey will help the Monument Mitras to design the correct strategies for their work.

ANALYSIS

SWOT ANALYSIS – ADOPT A HERITAGE PROJECT

CHART 2: SWOT ANALYSIS OF ADOPT A HERITAGE PROJECT

PROGRESS SO FAR

Well the pace at which the project is moving, progress is the right word to represent its present state of affairs. Till now 57 expressions of interest have been received, all from reputed and efficient organizations and the proposals were very impressive and appreciable. Out of these 57 responses only 7 organizations have been selected as Monument Mitras, the reason is obvious, very focused and strict procedure of the screening committee for the selection of well deserved Monument Mitras, these organizations are

- SBI Foundation
- TK International Limited
- Yatra Online Pvt. Ltd.
- Travel Corporation of India Limited
- Adventure Tour Operator Association of India
- Special Holiday Travel Private Limited(with) Rotary Club of New Delhi
- NBCC

The interesting fact about the selection of these organizations is that their primary business is far different from each other including Hospitality, travel and Banking and reason for being a Monument Mitra can also be different, corporate social responsibility can be one reason, brand extension is also a prominent one and there can be many more. The number of responses received by the project is ensuring one thing that the future of this project is really bright since organizations from various sectors are showing interest with satisfactory home work, in the same way the selection of these seven organizations is ensuring that their strategies and ideas are really effective for the overall development, conservation and management of the heritage sites. There is shocking news among all this that Taj Mahal has not been adopted by any organization rather other sites are adopted and these are

- Jantar Mantar
- Qutub Minar

- Sun Temple
- Hampi
- Ajanta Caves and many more

CONCLUSION

A new initiative is always difficult to implement smoothly but the well defined and structured Guidelines with detailed and systematic procedures and efficient organizations and ministry's associated with the project; these are the three strong pillars for providing the foundation support which is the backbone of any project of such large scale and future-oriented. The success of this project depends a lot on proper monitoring with regular and much needed modifications in the functioning according to the consequences and the changing environment.

- The project can be considered as feasible as the arrival of 57 expression of interest signifies that organizations are considering this project as a bright opportunity through which dual can be accomplished; the heritage sites of Government will be managed successfully and the objective of corporate social Responsibility of the organizations will also be fulfilled.
- The SWOT analysis of the project represents that the project is having more opportunities and strengths in comparison to the weaknesses and threats, which will, makes it a fruitful and profitable affair in near future.

RECOMMENDATIONS

- There are only few organizations in India, which are having expertise in dealing with the heritage sites, in such circumstances the selection of Monument Mitras needs to be done with utmost care i.e. each stage of the selection procedure requires to be completed satisfactorily before moving towards the next level.
- The heritage sites listed under this project are categorized in three categories which will be selected by the Monument Mitras according to their choices but some sites from those are already having proper management system and some sites which are important from historical and architectural point of view but not having proper facilities and are not listed under the project also deserves to be there in the list, so there has to be a mechanism for amendments in the list of heritage sites.
- Proper monitoring of any project whether small or large improves the chances of the project to be successful. The functioning of Monument Mitras also needs proper monitoring by a committee for controlling the project.
- The project also requires an International vision; proposals can also be invited and accepted from overseas organization depending upon the effectiveness and reputation of the concerned organizations.
- Website of the project needs to be improved by involving more information related with the accepted proposals, the organizations which are involved in the race of being Monument Mitras and much more which is asked or inquired.

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EMPLOYEE MORALE IN PRE AND POST SITUATION OF MERGERS AND ACQUISITIONS IN BANKING SECTOR

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ABSTRACT

The process of merger and acquisition is the aim of survival of the organisation with perspectives of growth and profit. The changing proposition of market and viability chance all depends on tendency of resistance from the internal customers that is the employees. However, very little research work has been done on extent of impact of pre and post merger situation in the organisation on the workforce. The present paper focuses on the pre and post study of employee behaviour as a response to the entire process. A change in employee behaviour in form of employee morale for both the pre and post situation was assessed. For the purpose of the study, a sample size of 200 employees from both the banks that is State Bank of India and State Bank of Indore was collected. The study was done in 3 stages, on the basis of identity of employees, level of job and residual year of services left. For measuring employee morale the questionnaire was designed on likert's scale and its reliability was checked prior to its administration. The data was statistically tested by One-Way ANOVA to analyze the difference between the means and the results were inferred in the results and discussion. The results depict that on the basis of group identity and level of job there was significant difference in employee morale as the chronbach alpha value was found to <.05. While on the basis of residual services there was no significant difference as the value of chronbach alpha was =.05. The result of this study suggests that proper care of employees while the M&A's process both prior and post is of utmost importance. As the employees are the internal customers who face the consequences which can be seen in form of altered morale at the workplace. This study is a behavioral study where employees are given prime importance in time of Merger and Acquisition. The review suggests that strategic changes in the Banking sector in terms of changes at workplace influences the employee morale. Further, in the study emphasis on employee morale as an important issue has been emerged as a outcome. At the end of the study, suggestions are given to handle this issue carefully.

KEYWORDS
merger and acquisition, employee behaviour, employee morale, banking sector, psychology.

JEL CODES
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INTRODUCTION

With the announcement of Merger and acquisition process there is a tendency of pressure on the workforce making them look for their prospects in the organisation in longer terms. The process involves a proper planned approach and it is usually implemented in the same way. With the changes in the market, the institutions have to update and excel to survive and cater the customer well.

The employee behavioral changes can be sagging morale with changes in their commitment towards their work and organisation. Banking industry is a very demanding sector where to survive in the market just acquiring customers and maintaining their loyalty is not sufficient and at times customer poaching is required. To acquire the set targets and maintain it for better prospects the pressure is being transferred on the employees. Their might be a tendency of lowering of motivation in form of resistance to change at the workplace as their colleagues, leader and values may have been altered by the process of Merger and acquisition. While on the other hand the employees of the acquired firm may not have all these implications. Employees of acquired firm may feel loss of attachment and a sense of belongingness may be their mind vibes. As both the organisation are having the same work but their compatibility with each other in terms of work style and culture is a big question to be answered. When the mergers and acquisitions occur between the equals the trend of keeping the important employees is a common trend to make the process succeed. The communication process plays an important role at this time and if any failure is seen, the retention rate falls down abruptly.

The fear of favoritism creates a pressure in mind of existing employees; they are in a situation of dilemma about their appraisals and existence in the organization. Frequent transfers or promotions create a disturbance in their routines and a new structural updation is seen. The entire integration phase is typically responsible for creating retention as a staff problem. In the changing business propositions the organization are going for mergers, acquisitions, takeovers to sustain in market and it creates imbalance in working conditions. There might be chances of changed working environment, mutual relationships and individual priorities. However, the individual sooner or later according to their age and expertise react differently. Some of them become too rigid to gel up with the culture, which shows their aggression in form of delay in work, absenteeism or irresponsive behaviour.

Employee morale has been found to relate with individual behavior at the workplace. It is the initiator or destructor of positive and negative efforts, which is reflected in the reduced motivation, commitment, competency and finally job satisfaction levels. By keeping a close watch on employee behavior at the workplace the employee morale can be analyzed and simultaneously can be kept up. As the review on morale, suggest that the employees who have higher level of morale help out in the changed proposition at the workplace. It has been termed as dysfunctional outcome of merger (Schweiger and DeNisi,1991; Chambers et al., 2009; Lin et al., 2010). The employees are prone to have survivor syndrome in such situations. The employees in the early stages are having a desire to stay in the organization for longer duration as they have to survive for their career growth. They usually welcome these circumstances sooner or later. The employee with old belief and attachment to previous organization may react differently. They might resist accepting the present situation mentally and may not be able to maintain high motivation levels.

OBJECTIVE
To compare Employee Morale in State bank of India and State Bank of Indore.

HYPOTHESIS
H 1 - "There is no significant difference in Employee Morale between employee of State Bank of India and State Bank of Indore after Merger ".
H 2 - "There is no significant difference in Employee Morale between employee of Executive and Non-Executive level".
H 3 - "There is no significant difference in Employee Morale between employee of Residual service less than 5 years and Residual service more than 15 years."

RESEARCH METHODOLOGY
This quantitative data study was done with the help of self structured questionnaire amongst 200 employees of the banks that is State Bank of India and State Bank of Indore. The sample was collected in 3 stages, on the basis of identity of employees, on the basis of level of job and on the basis of residual year of services left. The reliability test was prior conducted before administrating the questionnaire. The data was statistically tested by One-Way ANOVA to analyze the difference between the means and the results were inferred in the later part in results and discussion.
Development of Employee Morale Questionnaire: For assessing Employee morale no standardized tools were available. So a self designed questionnaire was prepared by the researcher herself standardized as well.

LITERATURE REVIEW
Morale has been referred to two phenomenon's which are experienced individually or in group. This can be termed as high morale or a low morale. It has been defined as "average feeling of contentment or satisfaction about the major aspects of the work situation" by Campbell, 1957. On the basis of review of literature morale has been explored up into three components Empathy, Conscientiousness and Warmth. Empathy has been defined as just an emotional contagion: catching the emotion that another person feels (Darwall, 1998; Hatfield et al., 1994; Hoffman, 2000). The role of empathy in employee morale can be seen in form of concern to colleagues. It is the ability to understand a particular situation and communicate with other person. Warmth can be attributed to the new people, culture and organization. The importance of positive vibrations in form of psychologically being well at workplace make a sense in changing scenario of different business propositions. The hampered image of workplace leads to emotional distress which can lead to changed employee behavior. The positive and negative reflections of morale lead to distress in ones persona. Conscientiousness is the degree to which an individual perseveres, is responsible and is organized (Kaplan and Saccuzzo, 2001) it is being further elaborated as degree of effectiveness and efficiency in terms of performing and organizing individual tasks (Taylor & De Bruin, 2006). It was also found to be related with the situational factors at workplace influencing the employee performance in previous work done by Funder, 1994; Pervin, 1997.
For designing the questionnaire in the first stage of design a list of statements was created. These statements were about individual opinion in terms of employee morale reasons for specific behavior at workplace was depicted by analyzing statements related to empathy, warmth and conscientiousness. These dimensions of Employee morale were based on study done by Chun Rosa (2009) on Employee Behaviour in times of M&A's. A list of 15 statements related to the dimensions of employee morale was prepared. The reliability and validity of the questionnaire was pre-tested on a sample size of 100 employees. Later on the basis of individual item reliability a final list of statements was created. The final list comprises of Item no. 1,2,3,4,5,7 and 8 are related to empathy, while 10th and 12 item are related to warmth. While item no. 13, 15 and 16 are related to conscientiousness (Table no. 2). The final list comprises of 12 statements.
This list was then converted in a questionnaire for measuring the response of respondents on a likert scale of 5 to 1. The final questionnaire was then administered to the 400 respondents. The respondents were distributed the questionnaire and later the same were collected from them. A time span of two to three days was given for filling the questionnaire.

TABLE 1

List of Statements for Employee Morale
1. I am satisfied with the efforts of organization for employee welfare.
2. I feel encouraged to come up with the new and better ways of doing things.
3. I feel that high level of integrity and honesty is maintained in my organization.
4. I feel a sense of involvement in decision making process of organization in terms of any change in work or organization itself.
5. I feel employees are encouraged to develop their Competency in my organization.
6. I feel proud to be a part of this organization.
7. I feel good to contribute by my work and efforts to this community through my organization.
8. I have a high level of respect for my seniors/ subordinates.
9. I feel that any negative opinion of my colleagues about the organization will not temper my efforts to work well for this organization.
10. I feel that change is the part of growth for any organization for its good and I have no resistance for it.
11. I feel support and a sense of belongingness in this friendly working environment.
12. I feel working in this organization is not by fate but by choice for me.
13. I feel my values to be related with the values of organization.
14. I have trust and confidence in my immediate supervisor.
15. I feel my values to be related with the values of organization.
16.I have trust and confidence in my immediate supervisor.
17. I have trust and confidence in my organization in regards to my job.

TABLE 2: SHOWING RELIABILITY FOR EMPLOYEE MORALE

Chronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.863	.871	12

This study finds the employee morale in terms of responses related to empathy, warmth and conscientiousness on the statements related to it. The responses were recorded on 5 point Likert's rating scale, 5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree and 1 Strongly. The individual response to the statement may vary with the individual employee identity in terms of bank, as well as the level of job designation and tenure of service may also influence the degree of response. So this scale identify importance level on each statement from 5 to 1 as 1 least important and 5 most important.

DATA ANALYSIS METHOD & TOOLS
For Objective no. 1, to test the significant difference within the group and between the groups one-way ANOVA was used. On the basis of values of $p < .05$ the hypothesis thus was accepted or rejected to depict the results. The data was reduced by Amos and used for further analysis. This data was then transformed on SPSS sheet and analyzed by testing with the help of One-way ANOVA for testing difference between the means of two groups.

RESULTS AND DISCUSSION

The data was collected and analyzed at three stages:

TABLE 3: SHOWING MEAN VALUES

Stages	Groups	Mean
I-On the basis of Residual Services in the Job	Group 1 (State Bank of India)	2.7473
	Group 2 (State Bank of Indore)	2.6389
II-At Executive and Non-executive level	Group 1 (Executive)	2.7402
	Group 2 (Non-Executive)	2.5495
III- On the basis of Residual Services in the Job	Group 1 (Residual service < 5 years)	2.7693
	Group 2 (Residual service > 15 years)	2.6680

TABLE 4: ANOVA TABLE

Group	F Value	Sig.
On the basis of Group of Employees (Employees of State Bank of India and Employees of State Bank of Indore)	14.576	.000
On the basis of level of job (Employees of Executive and Non-executive level)	12.735	.001
On the basis of Residual Services in the Job (Employees with residual service 5 years, Employees with residual service more than 15 years.	3.747	=.05

Result for Stage I- On the basis of Group of Employees

(Employees of State Bank of India and Employees of State Bank of Indore)

The values presented in table 4. shows that Group 1 (Employees of State Bank of India) has more Mean value in comparison to Group 2 (Employees of State Bank of Indore). The table 4.1 shows values for One way- ANOVA. The F-Value was recorded as 14.576, p value is <.05 and thus it is significant at.01 level of significance. The values presented in table 4.1. for ANOVA shows significant difference between the Group 1 (Employees of State Bank of India) and Group 2 (Employees of State Bank of Indore) and the difference is also significant within the group as well. Thus the hypothesis- **H 1** -"There is no significant difference in Employee Morale between employee of State Bank of India and State Bank of Indore after Merger "stands rejected.

On the basis of p value for One way- ANOVA the results clearly show significant difference in morale of employees in both the groups. The reason associated may be related to the changed propositions at the work place which might have influenced empathy, warmth and conscientiousness amongst them. As the employees belonging to the parent group State Bank of India are having mean values at a higher end in comparison to Group-2 employees of State Bank of Indore, it clearly shows that the employees of group 1 are more comfortable with it. The employees of Group 2 are still facing changes in terms of their familiarity with the work-setting, job and colleagues which are clearly seen in form of lowered mean values as well.

Studies on impact of morale done by Millet, 2010; Neely, 1999 suggested it to be very seriously affecting the work environment both on the client as well the customer services. This might be attributed to culture clashes at times of merger or acquisitions. Employee morale has been said to be an emotional contagion; catching the emotion that another person feels (Darwall, 1998; Hatfield et al., 1994; Hoffman, 2000). The members of same group or identity tend to support each other with fairness and respective morale and commitment, which influence their jobs (William, 2005). The literature reveals employee morale study to be related with high or low intensity at times contributing to inputs and outputs in an industrial setting influencing the employee behaviour (Kandori, 2003; Pemberton,1985; Bewley, 1999). The review suggests that M&A's are soon being followed by them-and-us attitude amongst the employees. The differences can be seen as employees favours made to the parent employees of the organisation Cartwright and Cooper (1996); Sacek Alen (2012).

Result for Stage- II-At Executive and Non-executive level

The values presented in table 4 for One-way ANOVA and the Mean values of the Group 1 (Executive) & Group 2 (Non-Executive) show difference between the two groups. The mean values suggest that the executive have more score while the non-executives are having less scores. The F value is 12.735, the p value is <.05 thus it is statistically significant. The values presented in table 4.1 for ANOVA shows significant difference between the Group 1 (Executive) and Group 2 (Non-Executive) and the difference is also significant within the group as well. Thus the hypothesis-**H 2-"**There is no significant difference in Employee Morale between employee of Executive and Non-Executive level" stands rejected.

On the basis of p value for One way- ANOVA the results clearly show significant difference in morale of employees in both the groups. The contentment or satisfaction about the major aspects of the work situation is termed as morale (Campbell, 1957). As the level of employees is different, so the satisfaction level is varied in both the groups. The required level of satisfaction as related with the level of work varies. The executive level of employees are concerned with more of administrative work while on the other hand the non-executive are prone to face day to day insecurity in terms of work situation. Employee morale lowers the work performance and creates frustration which is associated with the insecure feeling in reference to the job and change in processes, management, pay structure or labor contract (Bohl, 1989; Chambers Keisha and Honey Cutt Andrew 2009). Similar results were suggested by Nagambi H.C. 2011, Millet, 2010; Neely, 1999, Chun Rosa, 2009.

Result for Stage III-On the basis of Residual Services in the Job

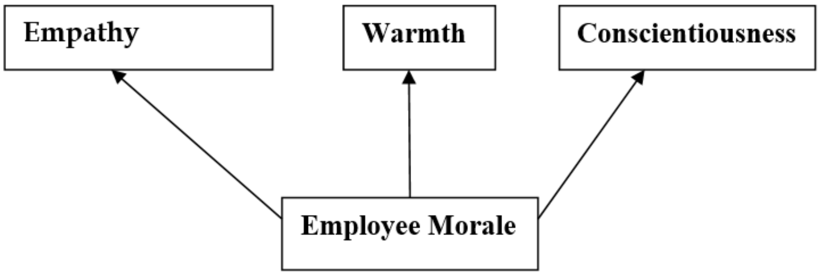
(Employees with residual service 5 years, Employees with residual service more than 15 years.

The Mean values shown in table 4 shows difference between the groups. The values presented in table 4.1 for One way ANOVA for the Group 1 (Residual service <5 years) and Group 2 (Residual service >15 years) is not found to be statistically significant as the F-value is 3.747 and the p value is =.05 and it is not statistically significant. The difference was found to be not significant within the group as well. Thus the hypothesis-**H 3**-"There is no significant difference in Employee Morale between employee of Residual service (less than 5 years) and Residual service (more than 15 years)" stands partially rejected.

On the basis of p value for One way- ANOVA the results clearly show that no significant difference in morale of employees in both the groups. The job tenure does not plays important role in this situation. Although the mean values indicate higher level of morale in the employees with residual service year < 5 years which might be attributed to their contentment or satisfaction with the age and experience they have achieved. This has made them more satisfied as well. While the employees with residual service > 15 years are much more insecure and are in a bit dilemma about their performance and are not able to adjust. So the values for morale means in this group were found to be at lower end. Similar research results were recorded by Campbell, Tyler, 1957; Nagambi H.C.,2011; Millet, 2010; Neely, 1999; Chun Rosa, 2009.

AMOS VALUES

FIG. 1



FACTOR SCORE WEIGHTS

TABLE 5

Employee Morale	Empathy	Warmth	Conscientiousness
	.393	.153	.398

FINDINGS AND SUGGESTION

The present findings infer that the employee morale is the essential constraint of employee behaviour which if hampered can make an individual work more effectively or may restrict him to perform. The study further investigated the employee morale at three stages and found that the identity of the employee in merger situation of acquirer or acquired also makes a difference on individual level of employee. The employees of acquirer firm are much more in the comfort zone and changes in behaviour may also be in the positive direction. While the employees of the acquired firm are more dealing with insecurity both psychological and work related constraints as enlarged responsibility, performance, transfer and promotion and much more. The study further dealt with the level of the job in stage II and found that the executive morale appears to be more on the positive side showing their efforts to facilitate the change process in the time of merger and acquisition. While the non-executives are more in pressure to give good performance. The results for stage III suggested that employees with more residual year of service are making more efforts to survive and are performing well.

SUGGESTIONS

1. Employee behavioural changes in Pre and Post merger situations are more prone to be influenced by the work setting and individual priorities in form of their respective identity of the bank, tenure of service and level of job so in both the situations handling of employees should be done carefully with proper intimation, communication process and their participation while implementing the changes.
2. Each and every individual has his or her own capability to handle the pressure of the entire process of M& A's which is reflected in form of behavioral changes so the process should be implemented with the help of OD change agent who can be an internal consultant or an expert from industry.
3. Employees in both Pre and Post situations should be trained for the process and they should also have some brainstorming sessions or informal meetings to pent off the pressure of change.
4. The changes of Pre and Post merger situation may be promising to many of the employees so with the help of career plan their future expected growth may also be well expressed to them to improve the morale.
5. The employees should be treated as valuable asset of the bank as they are the link between the services and the customer. If they are satisfied, the entire process will be implemented more smoothly.

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A STUDY ON IMPACT OF MICRO FINANCE TOWARDS WOMEN EMPOWERMENT THROUGH SHG IN TIRUNELVELI DISTRICT

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ABSTRACT
The present study examined the empowerment of women by addressing the impact of micro finance through Self Help Groups. One hundred and fifty women involved in Self Help Groups from Tirunelveli District of three taluks took part in the study. Both quantitative and qualitative data were gathered through interview schedule. They were analyzed using statistical tools the analysis indicates that women member of SHGs are coming out of their shells, shunning their secondary citizen status and using their potentialities and talents for individual and social benefits. Chi-square test in the study reveals that income, savings and level of satisfaction of the respondents before and after being the member of the SHGs differ significantly. Ranking scales and Factor analysis designate that there is positive impact micro finance through SHGs to enrich the women empowerment. The study concludes that a change has to be brought about not only in the status of women but in the attitude of the society towards them. Priority has therefore necessarily to be given to changing image of women from a passive onlooker and recipient, to that of a positive doer and achiever. The implications of these findings and the importance of this study are discussed.

KEYWORDS
women empowerment, self help groups, micro finance.

JEL CODE
E69

INTRODUCTION
The society can march towards development only when it accepts the women participation, grants responsibility and utilizes her ability. By the end of twentieth century, India has witnessed a positive transformation in women empowerment and economic development. Today it has been accepted by all that the role of the women goes much beyond the home and the bringing up of children. Women are now adopting the careers of their own and sharing equally with men the responsibilities for the development of society in all aspects. Women have been taking increasing interest in recent years in income generating activities, self-reliance, self-employment and entrepreneurship that also lead to property rights, political representation, social equality, personal right, family development, market development, community development and at last the nation development.

REVIEW OF LITERATURE
The researcher has taken following types of review to justify the Problem selected for research.

It was found in research that training given by CRUSADE in collaboration with Magalirthittam to attend gram sabhas, which enabled political empowerment (Kurushetra, 2001). The SHGs developed the habit of thrift and utilized collective wisdom to tackle their own problems (Kudu et al.2001). Micro finance through SHGs gives financial autonomy and make economically independent (Lakshmanan.s, 2001). The SHGs members awareness on girl's education and decision making skills were improved (Anjugam. M, 2001). Self-confidence, self-worth and communication were improved after being the member of SHGs (NABARD,2002).Living standard of rural poor in terms of income, employment, consumption, savings and borrowing capacity have improved (Kulshrestha.R and Archana Gupta, 2002). Economic status of SHGs members was significant in education housing facilities, occupation (Ritu Jainet al, 2003). Women shifting from wage to self-employment (Purushotham,2004). Members had got awareness in government programmes and schemes, bank transactions (Agnes, 2005).RBI has accepted Grameen model for a nation-wide SHGs- bank linkage program (Neduncheian, 2009).Micro finance bringing confidence, courage, skill, skill development and empowerment (Mohan 2010).Training awareness and viability and the group activities are the major issue to strengthen women empowerment through Micro Finance (Lokhande 2011). Micro Finance removes the village poverty (Malappa.D and Gund 2012).Services of Micro Finance to Institutions to strengthen economical status of the women (Radha Krishnan 2013). Micro Finance products enable the poor to expand and diversify their economic activities and improve their social well beings (Arunraj, 2014). The income of the women has increased after Join the SHGS and ensures prompt repayment of loan (Prof Sanjay Yadav 2015).

STATEMENT OF THE PROBLEM
Women development plays an important role in nation's economy. Since they constitute half of the total population, they have to play a significant role in the development of the country. Several development programmes have been implemented by the Government with a view to create women empowerment. Recently rural poor women are also motivated and associated for mutual help. They are also gradually improving their status, standard of living under personality. They find their own sources for generating income. Among all sources, SHGs plays a dominant role. The Government of India and State Government recognize such activities and announce many incentives, subsidies and schemes to Self Help Groups. One of such important scheme is micro finance through Self Help Groups. Traditionally women were dependent and were allowed to perform only restricted activities. Only a few educated women are participating in such activities and though many institutions bring awareness among women, only few know about the opportunities available. In order to create awareness among women and to give a detailed analytical performance of micro finance towards SHGs, the researcher has attempted to analyze the Impact of Micro finance in Tirunelveli District. This district has large agricultural community and women folk are involved in various SHGs. This study has been undertaken to study the impact of micro finance and role of SHG in development of women empowerment.

OBJECTIVES OF THE STUDY
The present study has been undertaken with the following objectives:
1. To access the role of women empowerment through SHGs.
2. To study the Socio-Economic conditions of members of SHGs in the study area.
3. To measure the impact of the Micro Finance on the women members of SHGs in terms of economic status.
4. To offer suitable suggestions based on findings.

METHODOLOGY
A study of women empowerment has always been a topic of great interest. The present study is undertaken to assess the impact of micro finance towards women empowerment through SHGs. The study has been conducted in Tirunelveli District, which is located between 08 8' and 09 23' latitude and 77 09'and 77 54' longitude. The total geographical area of the district is 6816.57 sq. km., which is 0.21 per cent of the total land area of the Indian Union and 5.28 per cent of the

total land area of Tamilnadu. This district is located in the southern part of Tamil Nadu and surrounded by Virudhunagar district on the North, Tuticorin district on the East, Gulf of Manner and Kanyakumari district on the South and Kerala state and Western Ghats on the West. Total population is 3,072,880 in 2011census. The average literacy rate of Tirunelveli in 2011 was 82.92%. The district is divided into 19 blocks. Taluks namely Ambasamudram, Shenkottai, Sivagiri, Sankarankovil, Radhapuram, Tirunelveli, Nanguneri, Palayamkottai and Thenkasi. Out of this 9 Taluks, 3 Taluks has chosen for the study namely, Thenkasi, Tirunelveli and Shenkottai. Among these 3 Taluks, there are 26 Self Help Groups functioning. Based on the total number of members in each SHGs, five SHGs are selected. The researcher has selected 150 members on the basis of the total number of members in the selected SHGs under propionate random sampling method in the selected Taluks in Tirunelveli district. The data relating to socio-demographic, role of SHGs and profile micro finance through SHGs was collected using interview schedule. Secondary data were also collected from related publications and websites. To analyze the data collected, statistical tools like percentage analysis, ranking

HYPOTHESES

To carry out the research work, the researcher has set the following hypotheses:

H_1 : There is no significant relationship between the age and their level of satisfaction towards SHGs.
H_2 : There is no significant relationship between the literacy level and their level of satisfaction of the respondents towards SHGs.
H_3 : There is no significant relationship between the occupation and their level of satisfaction towards SHGs.
H_4 : There is no significant relationship between the marital status and their level of satisfaction towards SHGs.
H_5 : There is no significant relationship between the linkage model and their level of satisfaction towards SHGs.
H_6 : There is no significant relationship between the family type and their level of satisfaction towards SHGs.
H_7 : There is no significant relationship between the membership period and their level of satisfaction towards SHGs.

ANALYSIS AND INTERPRETATION

DEMOGRAPHIC PROFILE

The demographic profile of the respondents are analyzed which reveals that the majority of 58.7 per cent of respondents belonged to the age group of 30-40 and 44.7 per cent of the respondents have their educational qualification only up to secondary level. A vast majority of 84 per cent of the respondents got married, 73.3 per cent of the respondents are living in nuclear family, 50.6 per cent of the respondents have more than 4 members in their family, 62.3percent of them residing in rural area and 49.3 percent of the respondents are self-employed due to being the member of Self Help Groups. It is clear from the analysis that women with large families enter into entrepreneurship. Table 1 shows the above fact.

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Socio-Economic Profile		No. of Respondents	Percentage (%)
Age (in year)	Below 30	22	14.70
	30-40	88	58.70
	40-50	40	26.70
	50 and above	-	-
Educational Qualification	No Schooling	8	5.30
	Primary	22	14.70
	Secondary	67	44.70
	Higher secondary	52	34.60
	Degree and above	1	0.70
Marital Status	Married	126	84.00
	Unmarried	-	-
	Widow	22	14.70
	Divorced	2	1.30
Type of Family	Joint	40	26.70
	Nuclear	110	73.30
Size of Family	1-3	46	30.70
	4-6	76	50.60
	above 6	28	18.70
Residential area	Urban	58	38.70
	Rural	92	62.30
Occupation	Self employed	74	49.30
	Agricultural labour	36	24.00
	Private employees	40	26.60

Source: Primary Data

PROFILE OF SELF HELP GROUPS

The profile of SHGs of the respondents were analyzed which indicates that the majority of 79.3 percent of the respondents are being the member followed by representatives and animators,49.3 percent of them became the member of SHGs due to unemployment problemand financial assistance, and 58.7 percent of the respondents actively participated in the activities of SHGs and 29.3 percent of them were trained in preparations of food products through SHGs and 36 percent of the respondents have faced the problem of delay in sanctioning loans and 41.3 percent of the member of SHGs are highly satisfied with the functioning of SHGs. The table 2 represents the profile of SHGs of the respondents.

TABLE 2: SELF HELP GROUPS PROFILE OF THE RESPONDENTS

Self Help Groups Profile		No. of Respondents	Percentage (%)
Role of the Respondents in SHGs	Members	119	79.30
	Representatives	14	9.30
	Animators	17	11.30
Motivational Factor to Join in SHGs	Empowering new skills	49	32.70
	Unemployment problem	74	49.30
	Financial assistance	27	18.00
Participation in SHGs	Very active	36	24.00
	Active	88	58.70
	Non Active	26	17.30
Nature of Training Offered	No training	15	10.00
	Preparation of food products	44	29.30
	Training on cottage industries	20	13.30
	Computer training	40	26.70
	Driving	4	2.70
	Coir marketing	27	18.00
Problems on availing loans	No Problems	18	12.00
	Complicated procedure	10	6.70
	Delay in sanctioning loans	54	36.00
	Sanctioned amount not fully paid	68	45.30
Level of Satisfaction	Very Good	62	41.30
	Good	48	32.00
	Satisfactory	22	14.70
	Not satisfied	18	12.00

Source: Primary Data

PROFILE OF ECONOMIC CONDITIONS

Income is an important factor enabling people to lead a happy life. The income determines the spending pattern and savings pattern of the family. It also determines the socioeconomic empowerment of the respondents. the study depicts that the income of 52 percent of the respondents fall below Rs5000 before joining SHGs but it has considerably increased after they become the member of SHGs. Like, there are notable changes in the amount of expenditure and savings of the respondents after becoming the member of SHGs. The results are shown in table 3.

TABLE 3: ECONOMIC CONDITIONS OF THE RESPONDENTS

		Before joining SHGs		After joining SHGs	
		No. of Respondents		Percentage (%)	
Monthly Income(in Rs)	No income	68	45.30	8	5.30
	1000-5000	78	52.00	39	26.00
	5001-10000	4	2.70	76	50.70
	10000and above	0	0	27	18.00
Family's Monthly Income(in Rs)	1000- 10000	-	-	41	27.70
	10001- 20000	-	-	87	58.00
	20001- 30000	-	-	22	14.70
Monthly Savings(in Rs)	No savings	74	42.40	40	26.70
	1000- 3000	62	41.30	76	50.70
	3001- 6000	14	9.30	32	21.30
	6000 and above	0	0	2	1.30

Source: Primary Data

In order to measure the significant difference among socio economic factors with the level of satisfaction of the respondents before after being member of SHGs, the following hypotheses have been framed and tested with the help of Chi-Square test at 5% level.

H_1 : There is no significant relationship between the age and their level of satisfaction towards SHGs.

H_2 :There is no significant relationship between the literacy level and their level of satisfaction of the respondents towards SHGs.

H_3 :There is no significant relationship between the occupation and their level of satisfaction towards SHGs.

H_4 :There is no significant relationship between the marital status and their level of satisfaction towards SHGs.

H_5 :There is no significant relationship between the linkage mode land their level of satisfaction towards SHGs.

H_6 :There is no significant relationship between the family type and their level of satisfaction towards SHGs.

H_7 :There is no significant relationship between the membership period and their level of satisfaction towards SHGs.

For all the above hypotheses, the calculated values are higher than the table value at 5 % level of significance. Hence, null hypothesis is rejected. Therefore, there is a significant relationship among socio economic factors with the level of satisfaction of the respondents before after being member of SHGs. Table 4 discloses the fact.

TABLE 4: RESULTS OF CHI-SQUARE TEST

Between	X^2	Table Value @5% level	Inference
Age and level of satisfaction towards SHGs	19.833	9.488	Significant
Literacy level and level of satisfaction towards SHGs	47.012	15.507	Significant
Occupation and level of satisfaction towards SHGs	47.894	12.592	Significant
Marital status and level of satisfaction towards SHGs	16.071	9.488	Significant
Linkage mode land level of satisfaction towards SHGs	3.632	9.488	Insignificant
Family type and level of satisfaction towards SHGs	46.573	9.488	Significant
Membership period and level of satisfaction towards SHGs	41.668	12.592	Significant

Source: Computed Data

IMPACT OF SHGs TOWARDS WOMEN EMPOWERMENT

SHGs that have primarily been formed in India as micro credit groups for economic empowerment of women and the weaker sections are: having access to large quantum of resources; provide a window for better promotion assistance and assurance of freedom, self-reliance and empowerment. The factors, which ensures the improvement of the standard of women members in SHGs in Tirunelveli district, the researcher, has applied 'Weighted average ranking method'. Among the sixteen variables on level of impact, the highest rank is assigned to improvement in self-confident of members (4.56), The second rank is assigned to them movement for women empowerment (4.15) and The third rank is assigned that the women themselves taking decisions towards their family matters of women in household and last rank is assigned to significant increase in political status. SHGs play a significant role in women empowerment. The results are shown in table 5.

TABLE 5: IMPACT OF SHGs TOWARDS WOMEN EMPOWERMENT

S.NO	Impacts of SHGs	OPINION SCORE	MEAN SCORE	RANK
1	Improvement in self-confidence	684	4.56	I
2	A movement for women empowerment	623	4.15	II
3	Decision Making of women in household	608	4.05	III
4	Significant increase in economic status	550	3.67	IV
5	Improved functional literacy	548	3.65	V
6	Better leadership qualities	546	3.64	VI
7	Significant increase in social status	522	3.48	VII
8	Self-help and mutual help	516	3.44	VIII
9	Better awareness in education	515	3.43	IX
10	Better awareness in environment	504	3.36	X
11	Financial self-reliance of women	482	3.21	XI
12	Better communication skills	480	3.20	XII
13	Better awareness in health care	444	2.96	XIII
14	Equal access and control over resources	420	2.80	XIV
15	Decision making of women in community and village	365	2.43	XV
16	Significant increase in political status	158	1.05	XVI

Source: Computed Data

IMPACTS OF MICRO FINANCE ON WOMEN EMPOWERMENT

Micro Finance Institutions in India fall under two broad sectors - Financial and non- Financial Sectors. Linkage of SHG's to banks is expected to fill in this need. Microcredit through self-help groups is a novel scheme introduced by the Reserve Bank of India to fulfill the needs of small traders and those engaged in small business. The micro-credit system provides for organization of SHG's consisting of members with homogeneous economic interests. Microfinance is the provision of thrift, credit and other financial services and products of very small amounts mainly to the poor in rural, semi-urban and urban areas for enabling them to raise their income level and improve living standards. Of late, microfinance has become a key word with Governments, All the micro finance programs aim at the empowerment of poor people especially women and eradication of poverty. The main thrust of these credit programs has been the provision of financial assistance to the poor at a concessional rate of interest coupled with capital subsidy to enable them to rise above the poverty line. Self help groups, which disburse microcredit to the members and facilitate them to enter into entrepreneurial activities. Formation of SHGs of women in India has been recognized as an effective strategy for the empowerment of women in rural as well as urban areas. To examine the impacts of micro finance on economic status of women members of SHGs in Tirunelveli district, the researcher has applied Factor analysis. The study clearly reveals that the level of impact of micro finance towards women empowerment through Self Help Groups, Opportunities to improve the standard of living**"** which is the important factor with high factor loading indicated that among the various attitude scale there is an opportunity for increasing the standard of living of women member of SHGs due to micro finance. The second important factor that they are able to solve their personal as well as family problems, Opportunities to meet their expenses, Security from future uncertainties, Opportunities to promote business and Opportunities for improving credit worthiness of the respondents. Table 6 discloses the fact.

TABLE 6: IMPACT OF MICRO FINANCE ON ECONOMIC STATUS OF THE RESPONDENTS

VARIABLES	ROTATED FACTOR MATRIX				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Opportunities for having improved standard of living	**.86952**	-.30473	.03899	.02988	.32390
Opportunities for awaiting new loans to settle old debts	**-.86710**	.28536	-.17188	-.27637	.02877
Opportunities for fulfillment of the basic needs	**.83635**	.20047	.05009	.02515	-.25933
Opportunities for attainment of ambition	**.76382**	-.11852	-.27741	-.07106	.53018
Opportunities for getting sustained support for livelihood	**-.66000**	.02551	.28684	-.25261	.03247
Opportunities for having small investments	**.58038**	-.33188	-.26129	.47143	.39020
Opportunities for solving the problem of rising prices	.34583	**-.88660**	.23602	.02702	.03733
Opportunities to take part in the affairs of the SHG	-.07873	**-.87775**	.17741	-.14880	-.22341
Opportunities for having considerable savings	-.13776	**.69554**	.54953	-.08984	.00007
Opportunities for having domestic appliances	-.15779	**.64199**	.26982	-.53696	.05798
Opportunities for meeting the expenses of Children's education	-.22162	-.22493	**.90279**	.07200	-.11324
Opportunities for improving managerial and personal skills	-.00854	-.03989	**.89269**	.32258	.14382
Opportunities for spending on entertainment	.57785	.38077	**.66484**	.10766	-.05224
Opportunities to buy goods and services on credit	.06977	.06986	-.11004	**-.91736**	.05940
Opportunities for procuring insurance policies	.45981	.17853	.10160	**.81424**	-.07916
Opportunities for establishing and promoting business	.18543	.22119	.52332	**.72650**	.14906
Opportunities for participating in economic decision	.41299	-.37278	.09495	**.56519**	.40462
Opportunities for improving credit worthiness	-.11019	.20614	-.04064	.03991	**.90959**
Opportunities for living in an healthy atmosphere	.05212	-.04243	.59214	-.32262	**.68265**
Opportunities for adjustment to urban environment	.36421	.55404	.14021	.26707	**.60429**

Source: Computed Data

FINDINGS

- Women in the age group of 30-40, who have their educational qualification only up to secondary level and got married living in nuclear family with more than four to six member in the families residing at rural area have active involvement in functioning of SHGs self-employed with the help of micro finance.
- SHGs profile of the respondents surveyed indicates that out of 150 respondents, 49.3 percent of women have motivated to being the member of SHGs by unemployment problems, & financial assistance and 29.3 percent of the respondents got training from SHGs on preparation of food products, 36 percent of the respondents of the respondents have problems on availing loans as delay in sanctioning loans &complicated loan procedures.
- Economic conditions reveals that individual income, family income and savings of the respondents before and after being the member of SHGs differ significantly.

- Ranking analysis indicates that the standards of women member of SHGs in Tirunelveli District improved significantly.
- Factor analysis on impact of micro finance towards women empowerment reveals that the respondents have opportunities for living healthy atmosphere, able to fulfil the basics needs and self-employed.

SUGGESTIONS

For the development of rural women towards empowerment, the following suggestions are put forth by the researcher:

- Since majority of the respondents' qualification is only secondary level the government shall encourage the women to improve their qualification through correspondence course and open university system.
- Training on self-employment skill, Communication skill and leadership skill to improve the personality of its members shall be organized by the government and NGOs
- Awareness about the training should be created.
- Frequent awareness camps can be organized to create the awareness about the different schemes of assistance available to the members of SHGs
- A good monitoring system may be implemented to inspect proper utilization of loans
- The banks shall encourage the members of SHGs, who avails microfinance for prompt repayment of loan by giving some concession such as reducing rate of interest sanctioning additional loan.
- House hold surveys may be conducted by SHGs in order to identify the eligible beneficiaries of the micro finance and allocate the funds according to needs of the people.

CONCLUSION

Women are having basic indigenous knowledge, skill, potential and resources to establish and manage their career. Women contribute much for the development of all sectors of the country. Employment gives economic status to women, which naturally increases social status and thereby empowerment. SHGs are considered as the main channel for generating income to the women in all areas particularly in rural and semi-urban areas. The growth of Self-Help Groups (SHGs) is evidence of the fact that women are coming out of their shells. Self help groups are the organization, which disburse microcredit to the members and facilitate them to enter into entrepreneurial activities. But now, what is the need is to create awareness among the rural and urban women who are job seekers and provider about the employment market situation, to motivate them to take-up self-employment ventures with the micro finance, to assist them in obtaining necessary inputs and to provide necessary follow-up assistance to the member of self-help groups.

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SMALL FINANCE AND WOMEN EMPOWERMENT – A QUESTION OF FINANCIAL INCLUSION AND POVERTY ALLEVIATION

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ABSTRACT

In recent years, there has been an increasing awareness and recognition of the fact that women who formed half of the society can't be ignored. Government initiates many policies for betterment of women status in society and for empowerment. Microfinance programmes for women are increasingly seen by development agencies as an effective poverty alleviation intervention, with a positive impact on economic growth and number of social development indicators. High repayment rates are interpreted to mean that women are using loans productivity and controlling credit. It is widely assumed that there is a clear and direct relationship between access to credit and increase in the status of women within their households and communities, provision of credit is believed to lead to empowerment of women. Hence, the present study has been under taken to assess the relationship small finance with poverty alleviation and financial inclusion.

KEYWORDS

SHG, Microfinance, poverty alleviation, financial inclusion.

JEL CODE

E69

1. INTRODUCTION

Microfinance is the provision of small scale financial services, primarily credit and savings, to low income people and enterprises which have traditionally been excluded from the mainstream of financial system, were considered less-credit worthy or too expensive to serve (Paul Dileo and Fitz Hebert, 2007). Large-scale and wide-scale microfinance intervention through Self Help Groups can vividly transform and empower the underprivileged, particularly in rural areas. Moreover, consistent with the profile of microfinance, focus must be on women. Women are poorer and more disadvantaged than men. World over including India, women are the disadvantaged and neglected lot. They have a limited presence in economic activities and are hardly considered in the formulation and implementation of any developmental scheme/programme. Micro-finance interventions are well-recognized world over as an effective tool for poverty alleviation and improving socio-economic status of rural poor. In India too, micro-finance is making headway in its effort for reducing poverty and empowering rural women.

Rural women play a significant role in the domestic and socio-economic life of the society and therefore, national development is not possible without developing this segment of the society. Their view of studies related to credit accessibility to women simply demonstrates that the direct access to institutional credit to rural women is very limited and there is gender bias in extending the credit to them. Even, male members of women borrowers have greater influence on accessibility to credit utilization and its repayment.

For the most part, empirical research on microfinance's effect on women's empowerment has been conceptually ungrounded and tends to estimate an over-extended definition. In recent years, there has been an increasing awareness and recognition of the fact that women who formed half of the society can't be ignored. Government initiates many policies for betterment of women status in society and for empowerment. Microfinance programmes for women are increasingly seen by development agencies as an effective poverty alleviation intervention, with a positive impact on economic growth and number of social development indicators. Hence, in this study made an attempt to analyse the impact of microfinance on poverty and financial inclusion.

2. OBJECTIVES OF THE STUDY

The basic objectives of the present study are as follows:

1. To examine the impact of Small finance on empowerment of women.
2. To analyse the effect of Small finance on poverty alleviation and financial inclusion.
3. To know the problems in accessing the financial products by the women.

3. HYPOTHESES OF THE STUDY

On the basis of knowledge of the old literature, the following hypotheses have been formulated and tested.

1. There is a positive relationship between small finance and women empowerment.
2. The microfinance have positive role in poverty reduction and financial inclusion.

4. METHODOLOGY

Various small financial supportive programmes have been announced by the government time to time, among those only women self help programme have been chosen for the analysis. Under this programme government have been providing various small financial service to the poor women. The Davanagere district has been selected for the study. Davanagere is one of the major agrarian districts in the state; around 70 percent of the population depends on this sector. Women population constitutes nearly half of the total population in the district. As per the panchatantra report, in the district total 4142 SHGs have been formulated and total 48066 members has been joined in these groups. Because of all these reasons, the Davanagere district has been chosen for the study.

SAMPLING METHOD

A multi-stage random sample technique has been utilised for the analysis. The district has six taluks. Among these, three taluks such as Harapanahalli, Davanagere and Harihara have been selected for the study. From each taluk, four villages were randomly chosen and finally 120 SHG members have been chosen for the study.

ANALYTICAL PROCEDURES

The present study is mainly based on primary data. The required data have been collected from the sample units by using structured questionnaire through personal interview method. The following statistical tools have been utilized for analysis;

To test the hypothesis the following 't' test formula has been utilized

$$(S)^2 = \sum_{i-1}^{N} (x_i - \bar{x})/(N-1)$$

The following 'Chi-square formula has been utilized to test the hypotheses

$$(x)^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i}$$

Where,

$(x)^2$= Pearson's cumulative test statistic, which asymptotically approaches a $(x)^2$distribution.

O_i= an observed frequency;

E_i= an expected (theoretical) frequency, asserted by the null hypothesis;

n= the number of cells in the table.

The following Pearson Correlation formula has been utilized to compute the relationship between the variables.

$$\mathbf{r} = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\left(\sum X^2 - \frac{(\sum X)^2}{N}\right)\left(\sum Y^2 - \frac{\sum Y^2}{N}\right)}$$

To assess the impact variables on empowerment the following Garret Ranking method has been computed;

$$Percentage\ Position = \frac{100\ (R_{ij}0.5)}{N_j}$$

Where,

R_{ij}= Rank given for i[th] variable by the j[th] respondent.

N_j= Number of variables ranked by the

5. RESULT AND DISCUSSION

TABLE 1: SOCIAL EMPOWERMENT

Measuring Variables	Mean	SD	T value	Chi-Square	Likelihood Ratio	R
Increased Self Confidence	76.20	70.062	2.43	12.000a	11.090	0.571
Increased capability in Decision making for family		90.524	1.88			
Increased communication skills		32.360	5.26			
Increased support during social crisis in family		62.842	2.71			
Increased recognition in community		59.826	2.84			
Participation in community activities		89.245	1.90			
Increased status in family members in crucial decisions		83.388	2.04			
Increased Mobilisation/participation		88.012	1.93			

Source: Field Survey

To know the impact of microfinance on social empowerment the different variables have been identified and analysed. The results of the study are presented in the table 1. The data in the table shows that all the social variables, which have been identified for the study, increased due to availability of small financial services provided by the government through SHGs. It is hereby conclude that microfinance significantly impacting on overall social empowerment of the women in the study area.

TABLE 2: ECONOMIC EMPOWERMENT

Measuring Variables	Mean	SD	T value	Chi-Square	Likelihood Ratio	R
Increases creation of personal assets	76.20	82.756	2.059	12.000[a]	11.090	0.478
Increased ability to support the family		93.774	1.817			
Increased access to microfinance		85.771	1.987			
Increased income		95.043	1.793			
Increased ability to make decisions regarding the utilisation of money/credit		72.454	2.352			
Increased support during economic crisis		99.386	1.714			
Increased capability of managing bank-related activities		35.912	4.745			

Source: Field Survey

Different economic variables which have been identified for the study has been shown in the table 2. The result of the study shows that all the economic variables which have been identified for the analysis have been increased significantly. Therefore it is here with concludes from the study that microfinance through SHG have played positive role in improving the economics condition of the people particularly poor women in the study area.

TABLE 3: FINANCIAL INCLUSION

Measuring Variables	Mean	SD	T value	Chi-Square	Likelihood Ratio	R
Increased access of financial products (credit, awareness, knowledge)	76.20	94.560	1.802	20.000a	16.094	-0.571
Increased Savings		110.257	1.545			
Increased Expenditure		84.253	2.022			
Increased Level of banking activities		60.163	2.832			
Informed decisions		31.300	5.444			

Source: Field Survey

To know the impact of microfinance on financial inclusion total five variables identified and analyzed. The analysed data has been presented in the table 3. The result of the study shows that all the variables such access of the financial products, savings, expenditure, banking activities and economic decisions of the poor women have been increased after involving in the SHG activities. Hence, it is hereby conclude from the analysis that the small financial programmes impacting positively on financial inclusion. It means that after joining in the SHGs the women are involving more in financial activities.

TABLE 4: POVERTY ALLEVIATION

Measuring Variables	Mean	SD	T value	Chi-Square	Likelihood Ratio	R
Increased Income level	76.2000	48.597	3.506	20.000[a]	16.094	-0.673
Increased Access to health facilities		68.166	2.500			
Increased Status of literacy		92.242	1.847			
Increased Knowledge& awareness		63.334	2.690			

Source: Field Survey

The Income, access to health facility, literacy, knowledge and awareness are the important parameters to measures the poverty level. These parameters were used analysed to know the poverty condition of the people in the study area. The results are shown in the table 4. It is seen in the table that all the variables have been increased after the joining of women in SHG. Therefore, it is concluding that microfinance significantly impact on poverty alleviation. It means that the income level, access to health facility, literacy level in the family, knowledge and awareness of the respondents have been improved with the help of small financial facilities.

TABLE 5: PROBLEMS IN AVAILING FINANCIAL SERVICES

Problems	Mean Score	Rank
Very far from the Village	53.30	IV
Lack of Service	46.45	VI
Officials are not Co-operative	36.73	X
Credit not available in time	64.64	I
Lack of Knowledge	64.25	II
Difficulty in Transportation to reach the Bank	38.99	VIII
More Rules and Regulations	64.09	III
Difficulty in filling of any Forms in the Banks	38.57	IX
No help Desk in any Banks	41.24	VII
Lack of Branches	50.09	V

Source: Field Survey

The table 5 indicates the problems faced by the women in availing financial services. The present study finds that the respondents have been facing many problems in the accessing of financial services. The Garret Ranking has been utilized to measure the problems facing by the women respondents in accessing financial services. The results shows that majority of the respondents were unable to get credit in time. It scored first among all the problems followed by Lack of knowledge score second, rules and regulation placed 3rd rank and not cooperation by the officials is placed last i.e. 10th place. It is confirm from the study that respondents have been facing more problems while accessing the financial services.

6. CONCLUSION

The present study intended to analysis the socio-economic empowerment of the women. The results of the study indicate that the all socio-economic variables which have been chosen for the study have been improved lot. Hence it is concludes that the socio-economic empowerment of the women in the study area has been increased after joining the SHGs.

In the present study also made an analysis of financial inclusion and poverty alleviation through SHGs in the study area. The inclusion of the poor women in the process of the financial activities has been measured in terms of account opening, savings habit, credit taken and availability etc. It is concluded from the present analysis that the financial inclusion has been improved after participation of the women in SHGs and the poverty level is measured by using the factors such as level of the income of the respondents availability and accessibility of medical and educational facilities. The study shows that all the variables improved a lot after participation in the SHG activities.

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ADOPTION OF IFRS IN INDIA

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ABSTRACT

IFRS is used in many parts of the world, including the European Union, Hong Kong, Australia, Malaysia, Pakistan, GCC countries, Russia, South Africa, Singapore and Turkey. As in December 2011 more than 110 countries around the world, including all of Europe, currently require or permit IFRS reporting. Approximately 85 of those countries require IFRS reporting for all domestic listed companies. In subsequent years, many other countries either adopted IFRS or converged to IFRS. An upcoming economy on world economic map, India, too, decided to converge to IFRS. IFRS convergence, in recent years, has gained momentum all over the world. As the capital markets become increasingly global in nature, more and more investors see the need for a common set of accounting standards. India being one of the key global players, migration to IFRS will enable Indian entities to have access to international capital markets without having to go through the cumbersome conversion and filing process. It will lower the cost of raising funds, reduce accountant's fees and enable faster access to all major capital markets. Furthermore, it will facilitate companies to set targets and milestones based on a global business environment rather than an inward perspective. Furthermore, convergence to IFRS by various group entities will enable management to bring all components of the group into a single financial reporting platform. This will eliminate the need for multiple reports and significant adjustment for preparing consolidated financial statements or filing financial statements in different stock exchanges. Historically, each country developed its own generally Accepted Accounting Principles (GAAP) for financial accounting and reporting and there was no uniformity among the GAAPs of different countries. Comparison of financial statements issued by business firms from different countries has become difficult leading toward suboptimal capital allocation across countries in the world. Gradually, there emerged a global demand for convergence of GAAP of different countries into a single set uniform accounting standards applicable to all countries. As a result, the International Accounting Standards Committee (IASC) was established in 1973. The IASC formed International Accounting Standards Board (IASB) in 2001, which began issuing International Financial Accounting Standards (IFRS). This paper presents details of each of these suggested alternatives and future adoption procedure, utility, challenges, implementation and transition of IFRS into the Indian accounting and reporting system.

KEYWORDS

GAAP, IFRS, international accounting standards board, adoption in India, transition.

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INTRODUCTION

International Financial Reporting Standards (IFRS) are designed as a common global language for business affairs so that company accounts are understandable and comparable across international boundaries. They are a consequence of growing international shareholding and trade and are particularly important for companies that have dealings in several countries. They are progressively replacing the many different national accounting standards. The rules to be followed by accountants to maintain books of accounts, which are comparable, understandable, reliable and relevant as per the users internal or external. IFRS began as an attempt to harmonies accounting across the European Union but the value of harmonization quickly made the concept attractive around the world. They are sometimes still called by the original name of International Accounting Standards (IAS). In India, the Institute of Chartered Accountants of India (ICAI), as the accounting standards formulating body in our country, has always formulated accounting standards that have withstood the test of time. As we globalize, the significance of convergence with International Financial Reporting Standards (IFRS) increases. In today's scenario of global business village India cannot afford to insulate itself from the developments and modifications taking place worldwide. In India, the accounting standards board set up an IFRS task force with the objective to explore the approach for achieving convergence with IFRS and laying down a road map for achieving convergence with IFRS with a view to make India IFRS complaint. In Feb, 2011, IFRS converged Indian Accounting Standards (Ind AS) came into existence. The implementation was postponed until April 2012 due to the practical challenges faced by Indian Regulators as well as corporates. Irrespective of the varying opinions convergence of IFRS with local standards is now not just a forum of discussion but a reality.

NEED FOR UNIVERSAL GAAP

In recent times, capital markets have become global and continue to expand. Moreover, there has been significant globalization of production and trade. Investors can trade shares and securities worldwide. Entities are in a position to access the funds globally in the most advantageous markets. For this, investors from all over the world rely upon financial statements before taking decisions. They need to be convinced that the financial statements are true and fair and what they understand from the statements is what the person preparing them intends to convey. However, different countries adopt different accounting treatments and disclosure patterns with respect to the same economic event. This may create confusion among the users while interpreting the financial statements. Financial statements that are based on a single, universally accepted and used GAAP will enable the world to exchange financial information in a meaningful and trustworthy manner. This will accelerate the globalization of finance.

WHY IFRS?

Conversion to IFRS offers companies a number of important benefits. Companies that operate in a global environment and comply with foreign reporting requirements can streamline their financial reporting. This will reduce related reporting costs by developing common reporting systems and will ensure consistency in statutory reporting. Furthermore, comparison and benchmarking of financial data with international competitors would be possible. Adoption of IFRS will make cross border acquisitions and joint venture possible, and also provide access to foreign capital. This is because majority of stock exchanges require financial information presented according to the IFRS. Early adoption of IFRS may offer an edge to the companies over their competitors as they can claim early adoption. This, in turn, will enhance the brand value of the company. The companies can trade their shares and securities on stock exchanges world-wide. For this, most of the stock exchanges require financial statements prepared under IFRS. Another major benefit of convergence is that the management of a company can view all the companies in a group on a common platform. This will reduce the time and efforts involved to adjust the accounts in order to comply with the requirements of the national GAAP. Business acquisition would be reflected at fair value in IFRS rather than the carrying values. This would ensure greater transparency in the financial statements. The implementation of IFRS in the corporates would require trained accountants, auditors, valuers and actuaries. This will boost the growth of the service sector also as India can emerge as an accounting services hub. Moreover, a single set of accounting standards worldwide would ensure that auditing firms standardize their training and quality of work is maintained globally.

WHAT IS IFRS/IAS?

IAS/IFRS is a single set of high quality, understandable and enforceable global accounting standards. It is a "principles based" set of standards which are drafted lucidly and are easy to understand and apply. Financial International Reporting Standards (IFRS) are Standards, Interpretations and the Framework for the Preparation and Presentation of Financial Statements set and adopted by the International Accounting Standards Board. IFRS has replaced the older term international accounting standard. Many of the standards forming part of IFRS are known by the older name of International Accounting Standards (IAS). IFRS are considered “principles based” set of standards in that they establish broad rules as well as dictating specific treatments.

International Financial Reporting Standards comprise:

- International Financial Reporting Standards (IFRS) - standards issued after 2001.
- International Accounting Standards (IAS) - standards issued before 2001.
- Interpretations originated from the International Financial Reporting Interpretations Committee (IFRIC) - issued after 2001.
- Standing Interpretations Committee (SIC) - issued before 2001.
- There is also a Framework for the Preparation and Presentation of Financial Statements, which describes of the principles underlying IFRS.

GLOBALIZATION AND FINANCIAL REPORTING IN INDIA

In recent past, India has seen a sea change in its way of financial reporting. The process of changes started in the late 1980s with the initiation of economic reforms and globalization process in India. Since independence in 1947 to mid-1980s, Indian industries were in complete control of the state. Price and quantity restrictions were in place and any entrepreneur interested in starting a new business venture (or, expansion of its existing capacity) had to take multiple permissions from various government departments. Rent seeking activity and excess capacity used to be the normal feature of the then Indian industries. Foreign Investment was negligible and funding for business was coming mainly in the form of loan from public sector commercial banks and financial institutions (e.g., IDBI). In the aftermath of liberalization program initiated in 1991, India faced severe Balance of Payments crisis and had to pledge its gold reserve to the Bank of England to overcome the crisis. The then Congress Government took some revolutionary steps with regard to opening up of Indian economy to foreign competition and inviting foreign investments in various industrial sectors. Both the industrial and financial sectors were deregulated and rupee was made convertible on Current Account.vi Capital Markets were made more accessible for Indian companies. Corporate houses were allowed to tap the foreign financial markets for their fund requirement. Insurance, banking, telecom, retail, and software, among many others were opened for foreign investments. These developments have encouraged foreign companies to invest in India. These increasing investment trends in India from abroad demand a corporate financial reporting system fully harmonized with the one being used worldwide. The demand is further supported by the Indian companies, which were either buying foreign companies or entering into joint ventures with foreign companies. Goldman Sachs (2003) also supported this phenomenon through a study on BRIC (Brazil, Russia, India & China) in which it suggested that these countries will become among the four most dominant economies by the year 2050. Currently, Indian Companies are reporting their financial statements based on Indian Accounting Standards prepared by Institute of Chartered Accountants of India (ICAI).These Standards are quite similar to IFRS. Till date, ICAI has issued 32 Accounting Standards covering many areas.

INDIA AND IFRS

In India, there will be two set of accounting Standards-

1. The existing Indian accounting Standards (IAS) – will be applicable to all companies which are not required to adopt IFRS converged standards.
2. Indian Accounting Standards, as converged with IFRS (Ind-AS) – will be applicable to companies operating in India in phased manner. The date of implementation of the Ind-AS is yet to be notified.

There are conceptual differences between IAS and IFRS. Keeping in view the extent of gap between IAS, Ind-AS and the corresponding IFRS- conversion process would need careful handling. By introducing a new company law, the Indian Government has initiated the process to amend the legal and regulatory framework. The conversion would involve Impact assessment, Revisiting Accounting Policies and thereafter changing the Accounting & Operational Systems (including ERP) in order to be carefully compliant with Ind-AS or IFRS.

IFRS ADOPTION PROCEDURE IN INDIA

In 1949, Indian government to streamline accounting practices in the country established Institute of Chartered Accountants of India by passing ICAI Act, 1949. Accounting Standard Board was constituted by ICAI in 1977 with a view to harmonize the diverse accounting policies and practices in India. The other objectives of the Board are: (i) conceive of and suggest new areas in which Accounting Standards are needed, (ii) formulation of Accounting Standards, (iii) examine how far IAS and IFRS can be adapted while formulating the accounting standards and to adapt the same, and (iv) review the existing Accounting Standards and revise them regularly as and when necessary, among others. In 2006, a task force was set up by ICAI. The objective of the task force was to lay down a road map for convergence of IFRS in India. Based on the recommendation made by the Task Force and on the basis of outcome of discussions and public opinions on IFRS adoption procedure, a 3 step process was laid down by the Accounting Professionals in India. This three steps IFRS adoption procedure can be summarized as follows:

Step 1 – IFRS Impact Assessment In this step, the firm will begin with the assessment of the impact of IFRS adoption on Accounting and Reporting Issues, on systems and processes, and on Business of the firm. The firm will then identify the key conversion dates and accordingly a IFRS training plan will be laid down. Once the training plan is in place, the firm will have to identify the key Financial Reporting Standards that will apply to the firm and also the differences among current financial reporting standards being followed by the firm and IFRS. The firm will also identify the loopholes in the existing systems and processes.

Step 2 – Preparations for IFRS Implementation This step will carry out the activities required for IFRS implementation process. It will begin with documentation of IFRS Accounting Manual. The firm will than revamp the internal reporting systems and processes. IFRS 1, which deals with the first time adoption of IFRS, will be followed to guide through the first time IFRS adoption procedure. To make the convergence process smooth, some exemptions are available under IFRS 1.These exemptions are identified and applied. To ensure that the IFRS are applied correctly and consistently, control systems are designed and put in place.

Step 3 – Implementation This step involves actual implementation of IFRS. The first activity carried out in this phase is to prepare an opening Balance Sheet at the date of transition to IFRS.A proper understanding of the impact of the transition from Indian Accounting Standards to IFRS is to be developed. This will follow the complete application of IFRS as and when required. First time implementation of IFRS requires lot of training and some difficulties may also be experienced. To ensure a smooth transition from Indian Accounting Standards to IFRS, Continuous training to staff and addressing all the difficulties that would be experienced while carrying out the implementation is also required.

UTILITY FOR INDIA IN ADOPTING IFRS

Economies across the globe have benefitted by adopting IFRS for financial reporting purposes. Previous Studies have suggested various benefits of adopting IFRS, notably, Better financial information for shareholders, Better financial information for regulators, Enhanced comparability, Improved transparency of results, Increased ability to secure cross-border listing, Better Management of global operations and Decreased cost of capital. This study will try to connect some of these and few other benefits with respect to the firms in India and also India as a country.

- **Better Access to Global Capital Markets** During the last decade, India has emerged as a strong economy on the global economy map. Indian Firms are expanding. These firms are not only setting plants in other countries but also acquiring other firms across the globev iii. For this they need funds at cheaper cost which is available in American,European and Japanese Capital Marketsix.To meet the regulatory requirements of these markets, Indian Companies should report their financials as per IFRS. Thus adoption of IFRS not only helps Indian Firms in accessing global Capital Markets for funds but also availability of funds at cheaper cost.

- **Easier Global Comparability** Across the globe, Firma are using IFRS to report their financial results. With the adoption of IFRS by Indian firms, the comparison of two becomes easier. Investors, Bankers and Lenders also find it easy to compare the two financial statements following same reporting procedure. Indian companies in the process of raising funds from overseas capital markets have to provide financial results to interested parties. Since majority of Indian Firms are accessing European capital markets, preparation and presentation of financial statements on the basis of IFRS helps firms in getting easy accessibility to these capital markets.
- **Easy Cross Border Listing** As mentioned earlier, Indian firms require funds for their expansion plans which are not limited to the economic and political boundaries of India. Indian Firms are acquiring firms outside India also. They are also getting listed in European and American Capital Markets through raising funds from these markets. One of the major pre-requisites of getting listed on European Markets is preparation of Accounts as per IFRS requirements. A few Indian Companies which have raised funds through the European Capital Markets have started preparing their Financial Statements as per IFRS.
- **Better Quality of Financial Reporting** Adoption of IFRS is expected to result in better quality of financial reporting due to consistent application of Accounting Principles and improvement in reliability of financial statements. Among various latest trends-based concepts, IFRS follows a concept of fair value which can help Indian firms to reflect their true worth of Assets held in the financial statements. Since a single body (IASB, London) is preparing IFRS, these are very consistent, reliable and easy to adopt ensuring better quality of financial reporting.
- **Elimination of Multiple Reporting** Large Business Houses in India like TATA, BIRLA, and AMBANI have firms registered in India and also firms registered outside India in European and American capital markets. Firms registered in India prepare their Accounts as per Indian Accounting Standards whereas firms registered in other countries prepare their financial statements as per the Reporting standards of the respective country. Adoption of IFRS ensures the elimination of multiple financial reporting standards by these firms as they are following single set of Financial Reporting. The above benefits are perceived benefits of adoption of IFRS. Researchers are yet to be carried out to understand actual benefits of adoption of IFRS. Such researches are negligible for Indian financial data, as India is yet to step in the era of IFRS. This calls for a future scope of study on impact of adoption of IFRS by Indian Companies on Indian Economy and Firms.

CHALLENGES IN THE PROCESS OF ADOPTION OF IFRS IN INDIA

Institute of Chartered Accountants of India set up a task force in 2006 to study and suggest a path for adoption of IFRS in India. On the basis of the recommendation of task force, a 3 phased programme (already discussed somewhere in this paper) has been initiated to adapt to IFRS in India. Accounting Professionals in India and across the world have listed various benefits of adopting IFRS. In spite of these benefits, adoption of IFRS in India is difficult task and faces many challenges. Few of these have been listed as below:

- **Awareness of International Financial Reporting Practices** Adoption of IFRS means a complete set of different reporting standards have to bring in. The awareness of these reporting standards is still not there among the stakeholders like Firms, Banks, Stock Exchanges, and Commodity Exchanges etc. To bring a complete awareness of these standards among these parties is a difficult task.
- **Training** Professional Accountants are looked upon to ensure successful implementation of IFRS. Along with these Accountants, Government officials, Chief Executive Officers, Chief Information officers are also responsible for a smooth adoption process. India lack training facilities to train such a large group. As the implementation date draws closer (2011), It has been observed that India does not have enough number of fully trained professionals to carry out this task of adoption of IFRS in India.
- **Amendments to the Existing Laws** In India, Accounting Practices are governed mainly by Companies Act 1956 and Indian Generally Accepted Accounting Principles (GAAP). Existing laws such as Securities Exchange Board of India regulations, Indian Banking Laws & Regulations, Foreign Exchange Management Act also provide some guidelines on preparation of Financial Statements in India. IFRS does not recognize the presence of these laws and the Accountants will have to follow the IFRS fully with no overriding provisions from these laws. Indian Lawmakers will have to make necessary amendments to ensure a smooth transition to IFRS.
- **Taxation** IFRS adoption will affect most of the items in the Financial Statements and consequently, the tax liabilities would also undergo a change. Currently, Indian Tax Laws do not recognize the Accounting Standards. A complete overhaul of Tax laws is the major challenge faced by the Indian Law Makers immediately. Enough changes are to be made in Tax laws to ensure that tax authorities recognize IFRS-Compliant financial statements otherwise it will duplicate the administrative work for the Firms
- **Use of Fair Value as Measurement Base** IFRS uses fair value to measure majority items in financial statements. The use of Fair Value Accounting can bring a lot of volatility and subjectivity to the financial statements. Adjustments to fair value result in gains or losses which are reflected in the Income Statements and valuation is reflected in Balance Sheet. Indian Corporate World which has been preparing its Financial Statements on Historical Cost Basis will have tough time while shifting to Fair Value Accounting.
- **Financial Reporting System** IFRS provide complete set of reporting system for companies to make their Financial Statements. In India, various laws and acts provide the financial reporting system but not as comprehensive as provided by the IFRS. Indian Firms will have to ensure that existing business reporting model is amended to suit the requirements of IFRS. The amended reporting system will take care of various new requirements of IFRS. Enough control systems have to be put in place to ensure the minimum business disruption at the time of transition. All the challenges mentioned here can be worked out by bringing a proper Internal Control & Reporting system in place. Firms, Regulators and Stock Exchanges in India should take some guidelines from the countries which have adopted the IFRS and have similar economic, political and social conditions.

IMPLEMENTATION OF IFRS WOULD THUS ENSURE THE FOLLOWING BENEFITS

i) Same language
ii) Cross border investments leading to economic growth
iii) Comparability of financial statements of any two companies anywhere in the world
iv) Globalisation of economy and world trade
v) For multinational companies:

- Consolidation of group financial statements made easier
- Accounting and audit functions made easier and cheaper
- Compliance with regulatory requirements of bodies such as stock exchanges
- Mergers and acquisitions made easier
- Access to multinational funds

vi) The job of governments and standard setters in the developing countries made easier
vii) The job of tax authorities made easier
viii) Time and money saved by international professional accounting firms in planning and execution of accounting and audits
ix) Administrative costs of accessing the capital markets around the world reduced.

IFRS IMPLEMENTATION CHALLENGES IN INDIA

Inspite of the various benefits of adopting IFRS, implementation of IFRS is a herculean task in India. Following are a few challenges faced during adoption and implementation of IFRS:

- **Awareness about international practices**

Adoption of IFRS means that the entire set of financial statements will be required to undergo a drastic change. There are a number of differences between the two GAAP's (discussed below). This may cause the users of financial statements to look at them from a new perspective. It would be a challenge to bring about awareness of IFRS and its impact among the users of financial statements.

- **Training**

Professional accountants are looked upon to ensure successful implementation of IFRS. The biggest hurdle for the professionals in implementing IFRS is the lack of training facilities and academic courses on IFRS in India. As the implementation date draws closer (2011), it is observed that there is acute shortage of trained IFRS staff. The solution to this problem is that all stakeholders in the organisation should be trained and IFRS should be introduced as a full time subject in the universities.

- **Amendments to the existing law**

It is observed that implementation of IFRS may result in a number of inconsistencies with the existing laws which include the Companies Act 1956, SEBI regulations, banking laws and regulations and the insurance laws and regulations. Currently, the reporting requirements are governed by various regulators in India and their provisions override other laws. IFRS does not recognise such overriding laws. Although steps to amend these laws have been initiated, the authorities need to ensure that the laws are amended well in time.

- **Taxation**

IFRS convergence would affect most of the items in the financial statements and consequently the tax liabilities would also undergo a change. Thus the taxation laws should address the treatment of tax liabilities arising on convergence from Indian GAAP to IFRS. It is extremely important that the taxation laws recognise IFRS compliant financial statements otherwise it would duplicate administrative work for the organisations.

- **Fair value**

IFRS uses fair value as a measurement base for valuing most of the items of financial statements. The use of fair value accounting can bring a lot of volatility and subjectivity to the financial statements. It also involves a lot of hard work in arriving at the fair value and valuation experts have to be used. Moreover, adjustments to fair value result in gains or losses which are reflected in the income statements. Whether this can be included in computing distributable profit is also debated.

TRANSITION TO IFRS

The Institute of Chartered Accountants of India has proposed two options for convergence:

- All at once
- Stage-wise approach

It has been observed that there are certain implementation dangers and compliance problems with either AS or IFRS in adopting the all at once approach. Therefore, stage-wise approach would be preferable.

FIRST TIME ADOPTION

For first time adoption, two key terms need to be understood:

- **Reporting date**-It is the end of the latest period covered by the financial statements.
- **Transition date**- It is the beginning of the earliest period for which an entity presents its first full IFRS compliant financial statements. ICAI has proposed that in the case of Indian corporates, the first reporting date will be 31-03-2012 and transition date will be 01-04-2010. Therefore, the first set of financials will be for the period 01-04-2011 to 31-03-2012 with IFRS comparable, which are to be provided for the period 01-04-2010 to 31-03-2011. It is mandatory for entities to include atleast one comparative period in IFRS compliant financial statements. After considering the current economic environment, ICAI has decided that IFRS should be adopted for public interest entities such as listed companies, banking companies, insurance companies and other large sized entities from the accounting periods commencing on or after 1st April, 2011.

CONCLUSION

The accounting principles are broad guidelines for general application, they permit a wide variety of methods and practices. The lack of uniformity of methods and practices makes it difficult to compare the financial reports of different companies. Moreover, the multiplicity of accounting practices makes it possible for management to conceal economic relatives by selecting those alternative presentations of financial results, which allow earnings to be manipulated. The financial statements prepared under such conditions, therefore, may have limited usefulness for several users of information. This problem has been recognized all over the world and various professional bodies are engaged in the task of standardizing accounting practices. The financial reporting thus has to be competitive and based on global accounting standards. IFRS are the global standards and will change accounting practice for financial assets. IFRS has today become a universal financial reporting language through which all the global companies are communicating with its global investors rather than having a divergent set of standards applied differently in different countries. India has already announced the convergence of Ind. AS with IFRS. The Ind. AS will be implemented very soon. The Indian accounting professionals have to make them well equipped at the earliest possible time by acquiring adequate knowledge through training. The comparison of financial statement will be easier and more cost-effective through common financial reporting language of IFRS. Indian Government and Accounting Body are taking every possible step for a smooth transition process. With all these systems in places, the IFRS adoption in India will become very smooth and accurate. IFRS adoption in India is inevitable.

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PREDICTIVE ANALYTICS FOR CONSUMER LENDING: A STUDY ON LENDING CLUB

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ABSTRACT
Now a days Financial Technology (FinTech) is rapidly substituting the traditional capital-intensive business models, by expansible aggregative models, leveraging technology. The Research subject identified is to study the data from Lending Cub, the largest US based peer- to- peer lending organization, where traditional money lending business meets the modern peer- to- peer aggregative business processes. Lending Club offers loans to its customers at a lower cost than bank loan programs. By doing this, it helps in moving the savings to borrowers by charging a lower rate of interest. On the other hand, it provides the investors a solid return. This is why Lending Club has earned among the highest satisfaction ratings in the financial services industry. The data, which was subjected to the study, spans over 2013 to 2014, available to the public on the website of Lending Club. It has over 3,70,000 records with over 125 variables (factors) fields. Study was taken up as a Classification project with focus on employing modeling techniques with the help of these variables to predict loan default. By predicting loan default, Lending club can reduce the risk of default. Executed Logistic Regression model for significant variables identified using CART (Classification and Regression Tree)/Random Forest techniques and measured model performance using True Positive Rate, McFadden R^2 and AUC (Area under the Curve).

KEYWORDS
FinTech, logistic regression, CART, random forest, McFadden R^2.

JEL CODES
H81, E59.

INTRODUCTION
Today, the consumer lending market is huge, worth of $3 trillion and remained largely unreformed by technological innovation. Most people would go to receive their loan from traditional financial institutions such as banks, credit card companies, credit unions and invest in traditional stocks and bonds.
Lending Club was founded by Renaud Laplanche. It is world's largest online credit marketplace. It facilitates personal loans, business loans and elective medical procedures. Borrowers access lower interest rate loans through a fast and easy online or mobile interface. Investors provide the capital to enable many of the loans in exchange for earning interest. Their operation is fully online. They do not have any branch infrastructure. They use technology to lower cost and deliver an amazing experience. They pass the cost savings to borrowers in the form of lower rates and investors in the form of attractive returns. They are replacing the banking system into a transparent and highly efficient online marketplace, helping people achieve their financial goals every day.
Lending Club offers a simple, low cost, convenient and beneficial alternative to both borrowers and investors. They have facilitated billions of dollars in loans and built a trusted brand by delivering exceptional value and satisfaction to both borrowers and investors.

HOW IT WORKS
1. Customers interested in a loan complete a simple application at LendingClub.com
2. Lending Club leverage online data and technology to quickly assess risk, determine a credit rating and assign appropriate interest rates
3. Qualified applicants receive offers in just minutes and can evaluate loan options with no impact to their credit score
4. Individuals to institutions select loans in which to invest and can earn monthly returns

REVIEW OF LITERATURE
Herzenstein et al. (2008) focused on recent development of peer-to-peer lending industry in China. With the design of regional quality in mobile payment, this article constructs a multi-index evaluation system made by the current situation of economic and social foundation. By using principal component analysis, the article makes a comprehensive quantitative evaluation of quality and level of its development. Analysis results show that there are obvious gaps in the development of the P2P industry of China, which indicates the trend that peer-to-peer lending, will spread from developed regions to developing regions. Coordination between indicators and evaluation results are basically consistent with the evaluation results.
Riza Emekter et al. (2015) explored the P2P loan characteristics, evaluated their credit risk and measured loan performances. It was found that credit grade, debt-to-income ratio, FICO score and revolving line utilization play an important role in loan defaults. Loans with lower credit grade and longer duration are associated with high mortality rate. Finally, they found that higher interest rates charged on the high-risk borrowers are not enough to compensate for higher probability of the loan default. The Lending Club must find ways to attract high FICO score and high-income borrowers in order to sustain their businesses.
Carlos Serrano et al. (2015) studied P2P lending and the factors explaining loan default. This is an important issue because in P2P lending individual investors bear the credit risk, instead of financial institutions, which are experts in dealing with this risk. P2P lenders suffer a severe problem of information asymmetry, because they are at a disadvantage facing the borrower. For this reason, P2P lending sites provide potential lenders with information about borrowers and their loan purpose. They also assign a grade to each loan. Factors explaining default are loan purpose, annual income, current housing situation, credit history and indebtedness. The grade assigned by the P2P lending site is the most predictive factor of default, but the accuracy of the model is improved by adding other information, especially the borrower's debt level.
In this project, we focus on identify the set of important variables in the data set which significantly influence the 'default' status by visualization and data exploratory methods. Employ modeling techniques with the help of these variables to predict loan default and leverage the predictive model inferences to fine tune the select/reject process of loan applicants.

IMPORTANCE OF THE STUDY
Now a days financial services are steadily replacing the traditional money lending business. The money lending business meets the modern peer- to- peer aggregative business processes. Lending Club uses technology to operate in a credit marketplace at a lower cost than traditional bank loan programs, passing the savings on to borrowers in the form of low rate of interest and to investors in the form of good returns. By providing borrowers with better rates, and investors with attractive, risk-adjusted returns, Lending Club has earned among the highest satisfaction ratings in the financial services industry. The importance of this study is to make accurate default prediction from the data available at the time of application for the loan, so that the default rate can be reduced.

STATEMENT OF THE PROBLEM
Unlike in traditional lending, investors in P2P lending hold a higher credit risk, as they are not experts in the domain. They often lack the right information about the borrowers and the ability to make the right judgment on lending at the appropriate interest rate.
This study aims to bring out insights, which would help address issues, which both investors & borrowers face. While it targets to help borrowers to secure loans at the most competitive rates with least troubles, it would also help investors, to maximize returns minimizing risks, with data-driven inputs.

OBJECTIVES

1. Identify the set of important variables in the data which significantly influence the 'default' status by visualization and data exploratory methods.
2. Employ modeling techniques with the help of these variables to predict loan default.
3. Leverage the predictive model inferences to fine tune the select/reject process of loan applicants.

HYPOTHESIS

Null Hypothesis: Default status is not dependent on any of the following variables:

Variable	Description
Term	The number of payments on the loan. Values are in months and can be either 36 or 60.
Grade	LC assigned loan grade
installment	The monthly payment owed by the borrower if the loan originates.
last_pymnt_amnt	Last total payment amount received
loan_amnt	The listed amount of the loan applied for by the borrower. If at some point in time, the credit department reduces the loan amount, then it will be reflected in this value.
out_prncp	Remaining outstanding principal for total amount funded
total_rec_int	Interest received to date
total_rec_late_fee	Late fees received to date
total_rec_prncp	Principal received to date
Total_payment	Payments received to date for total amount funded

Alternate Hypothesis: Default status is dependent on one or many of the above variables.

RESEARCH METHODOLOGY

- The data which was subjected to the study spans over 2013 to 2014, available to the public on the website. Minimum Term is 36 months, so only fully serviced loans are considered. Loans sanctioned in 2015 and after that, status will be unknown. The data set has over 3,70,000 records with over 125 variables (factors) fields.
- Post cleaning the voluminous data, Visualization was carried out using Tableau, MS Excel & R
- Employed CART, Random Forest & Logistic Regression to identify significant variables and build models for predicting 'Default'
- The data was split into Train and Test datasets in a ratio of 60:40 to ascertain the stability of the models.

RESULTS & DISCUSSION

DATA VISUALIZATION

CHART # 1: AMOUNT OF LOANS DISBURSED FROM 2007 - 2014

Over years, there has been an exponential rise in the number and amount of loans disbursed by Lending club

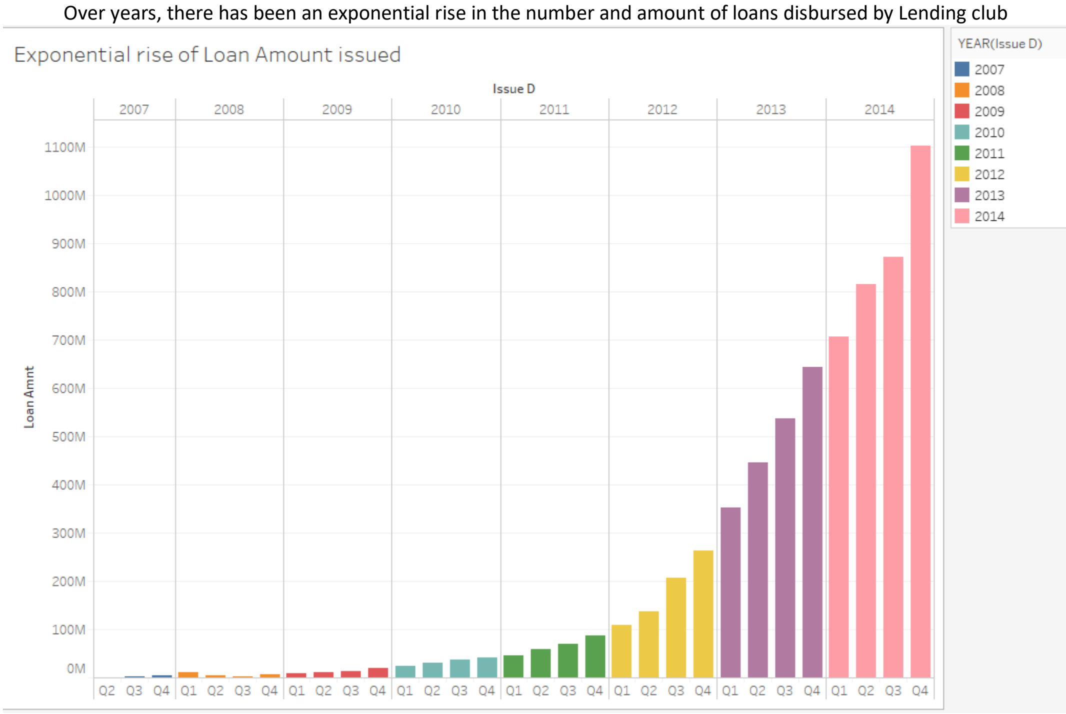


CHART # 2: LOANS DISBURSED DURING THE FESTIVE SEASON

As can be seen below, the loans issued before the festive months of November and October are the highest.

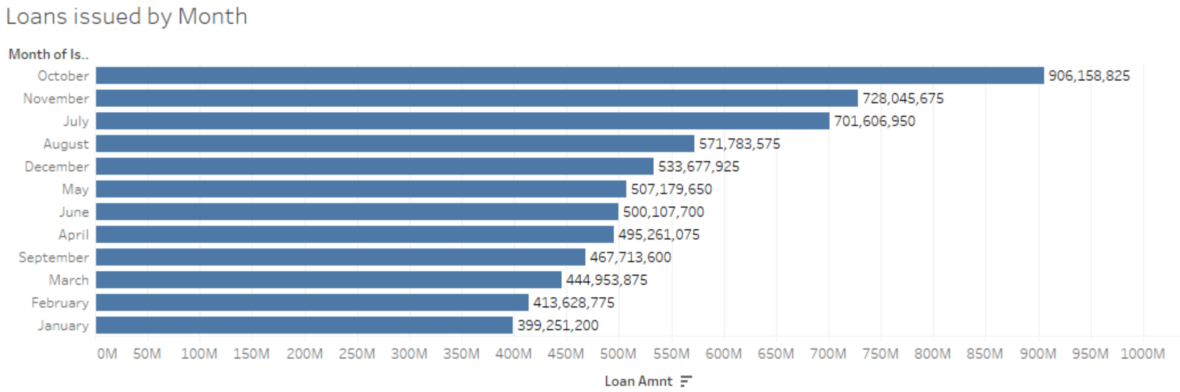


CHART # 3: *DEFAULT Vs TERM*

Loans with longer tenure has a higher default rate.

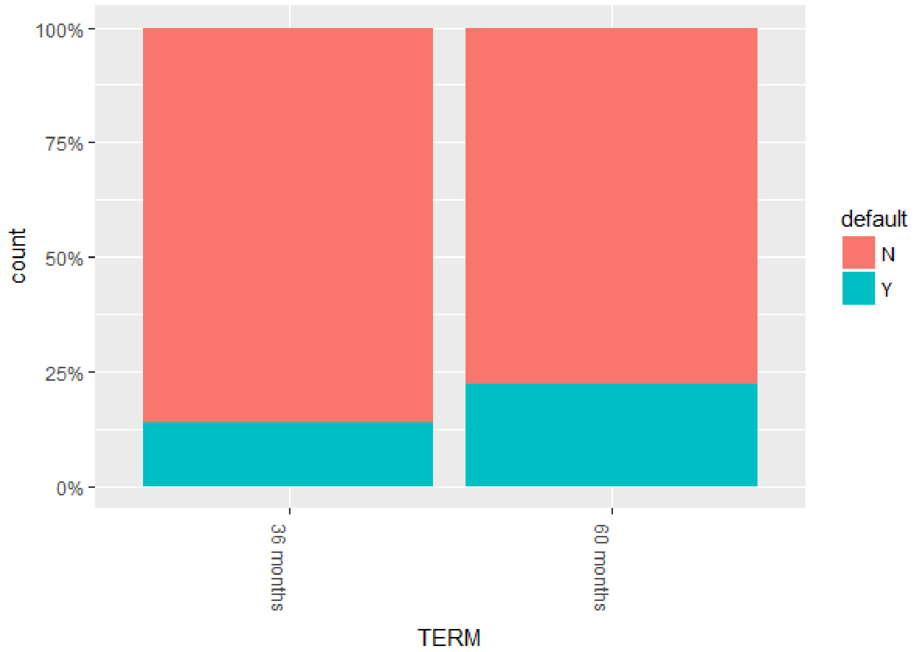


CHART # 4: *DEFAULT Vs GRADES*

Applicant in Grade G has the highest default rate. A has the lowest default rate.

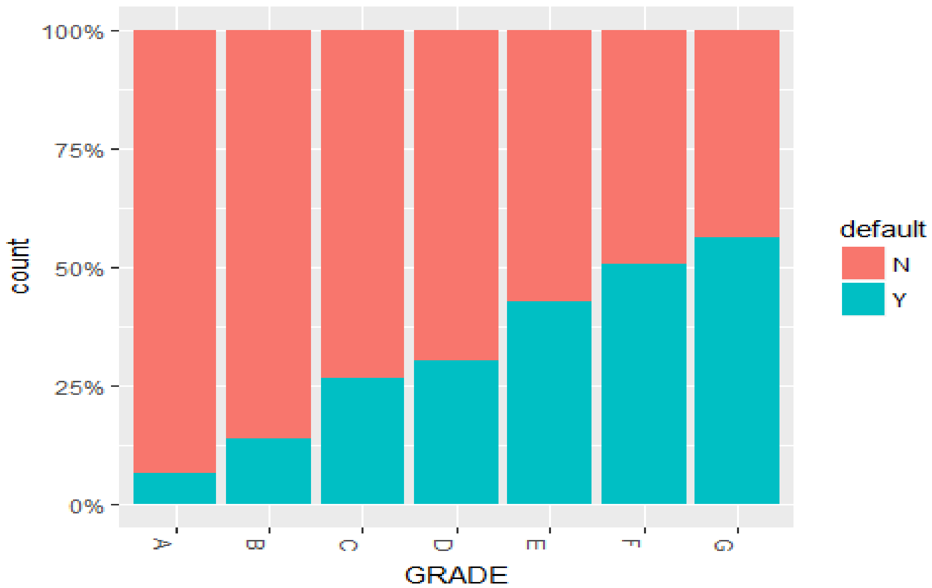


CHART # 5: *DEFAULT Vs LAST PAYMENT AMOUNT*

Borrower's having a low last paid amount have defaulted more compared to borrowers with a higher last paid amount.

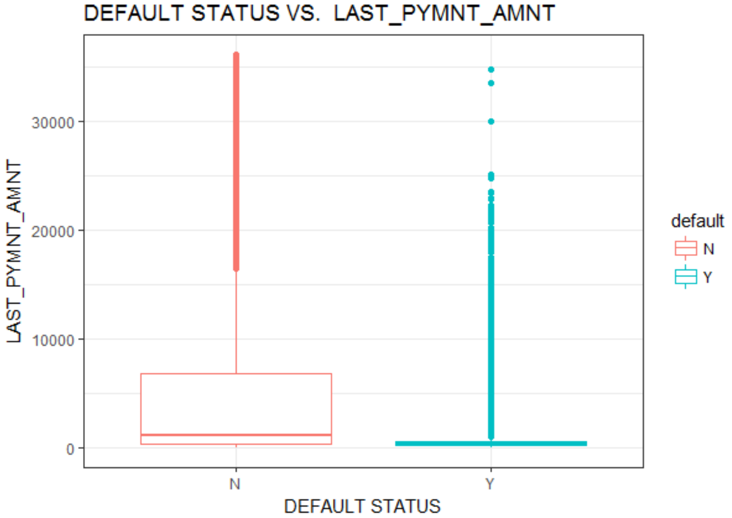


CHART # 6: *DEFAULT Vs LOAN AMOUNT*

Higher the loan amount higher the default rate.

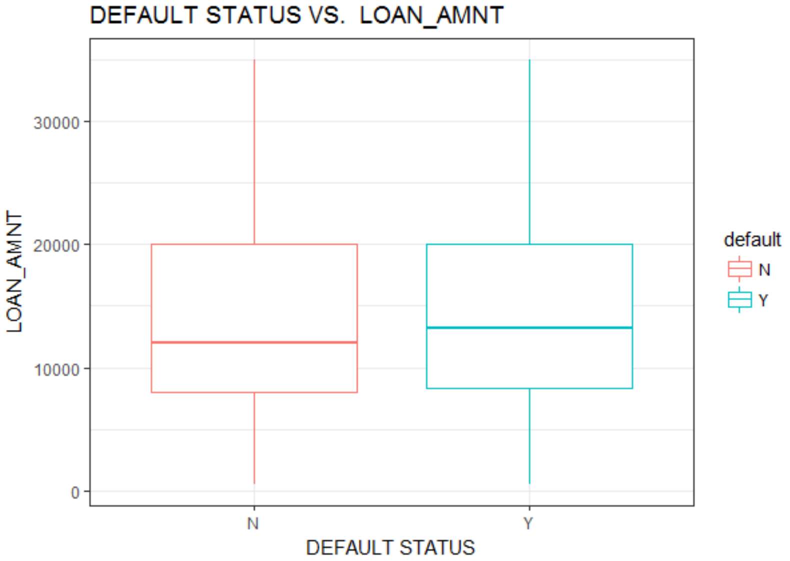


CHART # 7: *DEFAULT Vs OUTSTANDING PRINCIPAL*

No significant relationship observed.

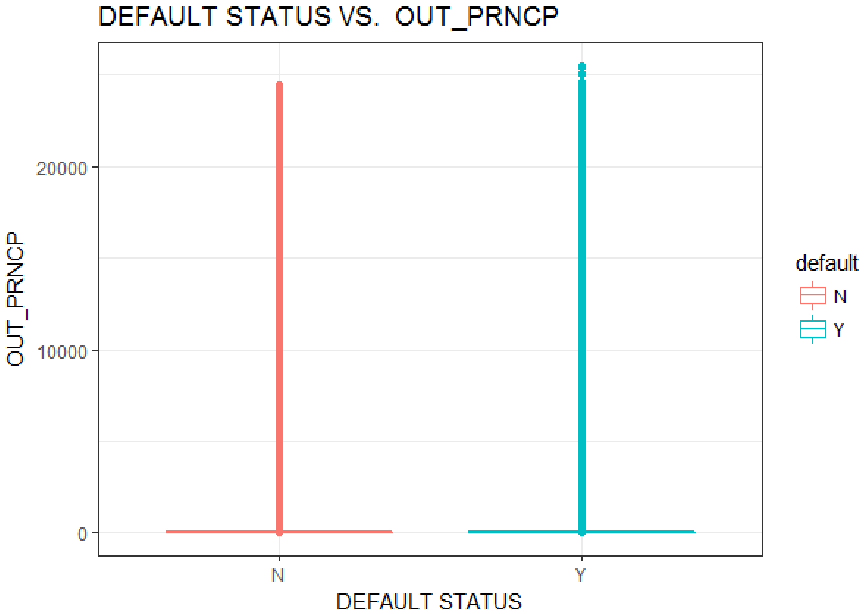


CHART # 8: *DEFAULT Vs TOTAL INTEREST RECEIVED*

No significant relation observed.

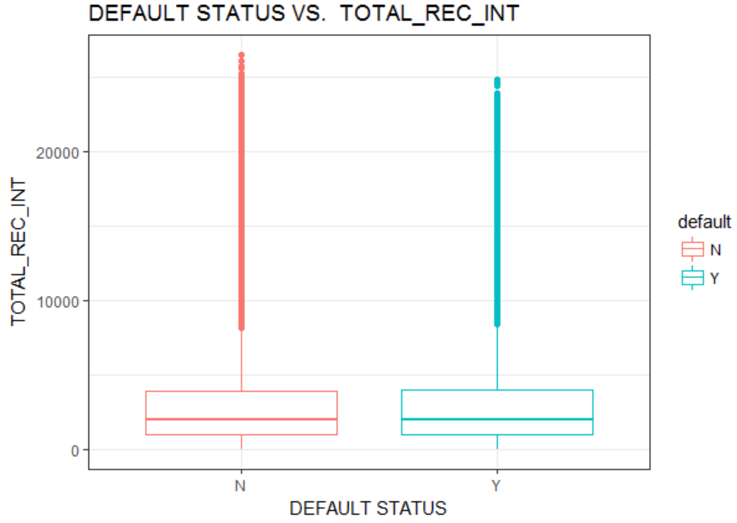


CHART # 9: *DEFAULT Vs TOTAL LATE FEE RECEIVED*

No significant relationship observed

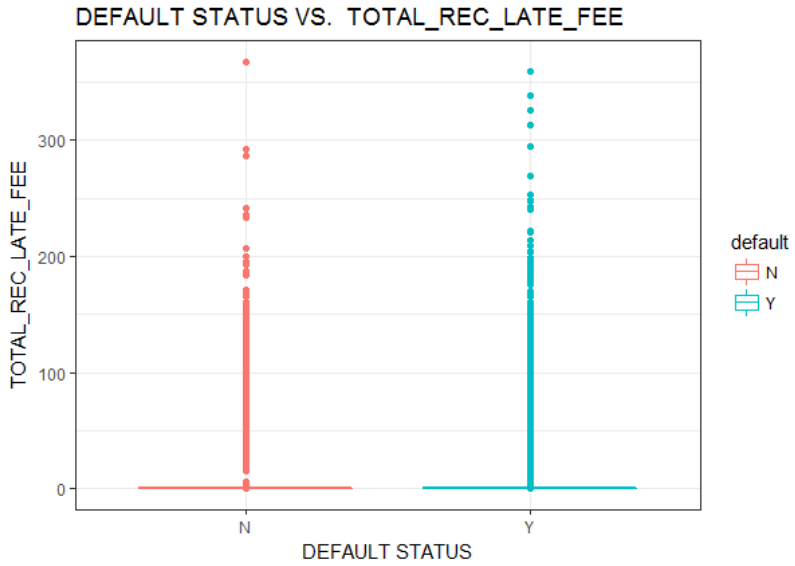


CHART # 10: *DEFAULT Vs TOTAL PAYMENT*

Higher the total payment less chance of default as per the chart below.

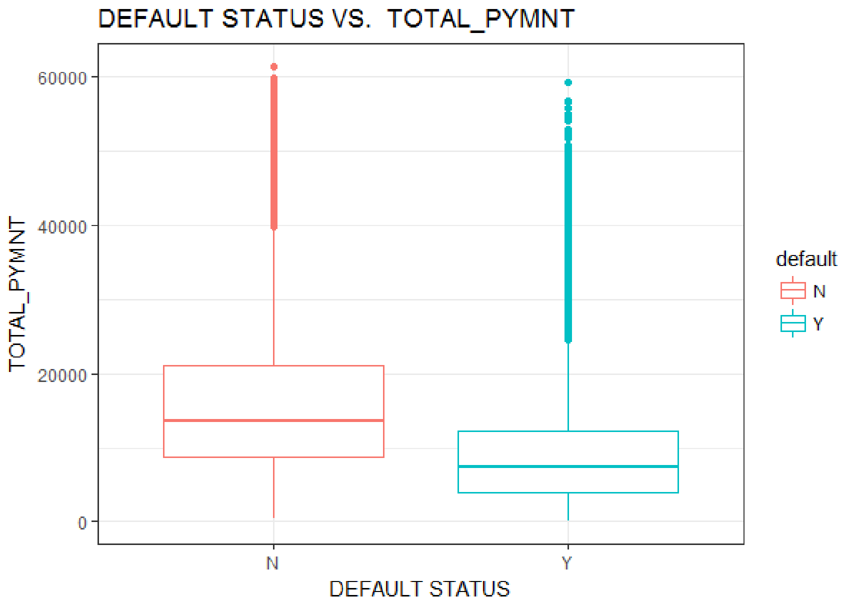


CHART # 11: ***DEFAULT Vs TOTAL PRINCIPAL RECEIVED***

The higher the principal received the lower the chance of default. This relation is synonymous to the Total Payment.

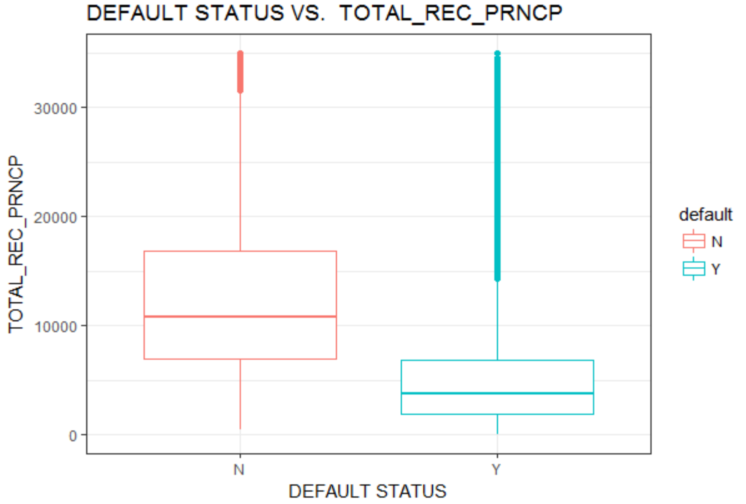
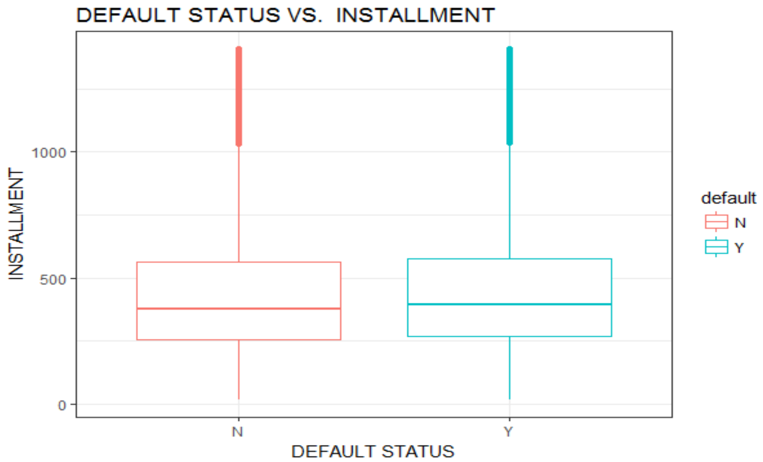


CHART # 12: ***DEFAULT VS INSTALLMENT***

Defaulters have a slightly higher monthly installment.



Identify significant variables using CART (Classification and Regression Tree)

It is observed that the predictive power of the variables is not consistent over the years, which indicates that Lending Club continued to improve the model. It is seen that Lending Club using the data that they started accumulating on the loan repayment behavior of the borrower.

TABLE 1

Year Groups	**2013-14**	
Variables	installment	
	last_pymnt_amnt	
	loan_amnt	
	out_prncp	
	sub_grade	
	term	
	total_pymnt	
	total_rec_int	
	total_rec_late_fee	
	total_rec_prncp	
Confusion Matrix	**Predict**	
Train		
Default	**0**	**1**
0	187005	325
1	3383	31318
Accuracy	98%	
Sensitivity	90%	
Specificity	100%	
Test		
Default	**0**	**1**
0	124501	386
1	2421	20713
Accuracy	98%	
Sensitivity	90%	
Specificity	100%	
AUC	0.9829	
KS	0.9064	
GINI	0.8149	

RANDOM FOREST MODEL

Executed Random Forest model for the same set to corroborate the significant variables and the results are in line with those identified using CART.

TABLE 2

	2013-14	
Train	**Predict**	
Default	**0**	**1**
0	187281	49
1	3698	31003
Accuracy	98%	
Sensitivity	89%	
Specificity	100%	
Test	**Predict**	
Default	**0**	**1**
0	124844	43
1	2540	20594
Accuracy	98%	
Sensitivity	89%	
Specificity	100%	
GINI	86%	
AUC	99%	
KS	92%	

LOGISTIC REGRESSION MODEL

Using the variables identified using CART/Random Forest models, Logistic Regression model was executed.

- The modeling set was split into two parts -60% modeling data and 40% validation data. Logistic Regression was executed on modeling data
- Using the ***glm*** function in R, identified the variables with maximum '***p***' values
- Checked the variable importance using the ***varImp*** function of ***caret*** package and calculated the Log-Odds ratio
- Based on all three, the resulting significant predictors were identified

TABLE 3

Variable	p-value	varImp	Odds	Probability
installment	<2e-16	26.82913	5	83.34%
total_rec_late_fee	<2e-16	24.54581	38.67	97.50%
last_pymnt_amnt	<2e-16	19.91708	0.91	47.60%
total_rec_prncp	<2e-16	18.57044	0.11	9.70%
loan_amnt	<2e-16	18.11091	8.79	89.78%
term 60 months	6.11e-14	7.505634	1.97	66.33%
gradeC	1.51e-06	4.809319	1.5	59.97%
gradeG	5.83e-05	4.019788	0.4	28.59%
gradeF	0.000259	3.653006	0.54	35.02%
gradeB	0.005557	2.772832	1.26	55.70%
total_rec_int	0.015469	2.421219	0.99	49.92%
gradeE	0.094209	1.6736	0.81	44.89%
gradeD	0.289937	1.058259	1.11	52.55%
Out_prncp	<2e-16	18.270244	0.11	10.03%

TABLE 4

Train	**Predict**	
Default	**0**	**1**
0	187248	82
1	3582	31119
Accuracy	98%	
Sensitivity	90%	
Specificity	100%	
Test	**Predict**	
Default	**0**	**1**
0	124816	71
1	2338	20796
Accuracy	98%	
Sensitivity	90%	
Specificity	100%	
McFadden R^2	85%	
AUC	98%	
KS	90%	

INSIGHTS AND INFERENCES

In this section interpretation of the McFadden R^2 of the Logistic Regression model and log odds of the significant factors are made.

For the interpretation purpose, it is focused on the model executed for 2013-14 years as this will be the base for any current or future modeling.

Based on the McFadden R^2 of 85%, it is concluded that 85% of the uncertainty of the intercept only model has been explained by this full model. Thus the goodness of fit is excellent.

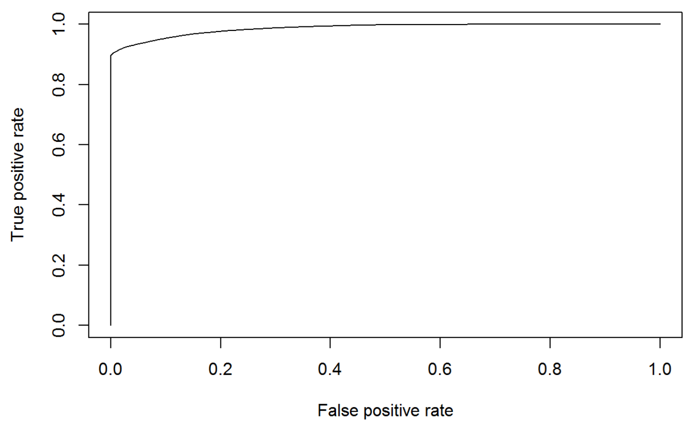
TABLE 5

Variable	Odds	Probability	Interpretation
Installment	5	83.34%	If the monthly installment for a borrower increases by $100, then the odds of him defaulting increase by 5 times and the probability of default is 83.34%
total_rec_late_fee	38.67	97.50%	If the late fee paid by the borrower increases by $100, then the odds of him defaulting increase by 38.67 times and probability of default is 97.50%
last_pymnt_amnt	0.91	47.60%	If the last paid amount by the borrower increases by $100, then the odds of him defaulting decrease by 0.91 times and probability of default is 47.60%
total_rec_prncp	0.11	9.70%	If the total principal amount returned by the borrower increases by $100, then the odds of him defaulting decrease by 0.11 times and probability of default is 9.70%
loan_amnt	8.79	89.78%	If the loan amount requested by the borrower increases by $100, then the odds of him defaulting increase by 8.79 times and probability of default is 89.78%
term 60 months	1.97	66.33%	If the tenure of loan opted by the borrower is 60 months then his odds of defaulting increases by 1.97 times compared to 30 months tenure and probability of default is 66.33%
gradeC	1.5	59.97%	The odds of defaulting increases by 1.5 times for a borrower classified in grade C compared to grade A borrower and probability of default is 59.97%
gradeB	1.26	55.70%	The odds of defaulting increases by 1.26 times for a borrower classified in grade B compared to grade A borrower and probability of default is 55.70%
total_rec_int	0.99	49.92%	If the total interest amount returned by the borrower increases by $100, then the odds of him defaulting decrease by 0.99 times and probability of default is 49.92%
gradeD	1.11	52.55%	The odds of defaulting increases by 1.11 times for a borrower classified in grade D compared to grade A borrower and probability of default is 52.55%
Out_prncp	0.11	10.03%	If the outstanding principal decreases by $100, then the odds for a borrower defaulting decreases by 0.11times and probability of default is 10.03%

ROC CURVE

The ROC curve shows high True positivity, and Area Under Curve of 98%, which again shows that this is a good model. Area under the curve measures the discrimination, the ability of the model to correctly classify the borrower who will default or not default.

GRAPH 1



CONCLUSION

Lending Club can use the significant factors identified to fine tune the model used for accepting or rejecting the loan applicants so that the number of defaulters reduce. This will benefit the investors.

Lending Club can devise a floating interest rate that will award the borrowers based on their behavior by reducing the interest rate, which can lead to reduction in defaulters.

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INFRASTRUCTURE DEVELOPMENT AND CEMENT INDUSTRY IN HIMACHAL PRADESH

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ABSTRACT

Infrastructure development provides the foundation for capital formation in any economy. Cement industry is one of the core sector industries in India, which weights 5.37 per cent in IIP (Base: 2011-12=100) and also considered an important driver of economic development. India ranked second after China in production of cement. Production of cement in India has increased with a compound annual growth rate of 3.06 per cent during last 4 years. Himachal Pradesh is a hilly State and cement industry of Himachal Pradesh provides cement for housing and construction sector. The objective of the paper is to study the impact of cement industry on infrastructure development of Himachal Pradesh w.r.t. demographic, economic and social factors of the sample population with and outside the cement plants of the state. The research methodology is based on both primary and secondary sources of data, the analysis and interpretation is consisted of percentage, mean, standard deviation and chi-square test. The summary, conclusion and suggestions are highlighted on the basis of factors that are dependent, associated and significant and are detrimental in the present study.

KEYWORDS

infrastructure development, cement industry, demographic, economic and social variables, dependent factors.

JEL CODES

L6, L61.

INTRODUCTION

The Indian cement industry is the second largest market after China. Though lot many cement brands are available but still cement is largely considered as commodity. This industry is freight intensive and so the priority of each company is to sell it at the nearby areas only as long distance transportation generally makes it non-economical. This makes it regional dominant industry and broadly Indian cement market is divided into five regions namely east, west, north, south and central. Among these, the south zone has the largest installed capacity, which accounts for almost one third of total capacity. As far as overall demand and capacity is concerned, the capacity in India was always more than the demand and during sluggish period, it gives a lot of pressure to margins of cement companies. Table 1.1 shows the monthly production of cement in India from the year 2013-14 to 2016-17. Figure 1.1 shows that production of cement was highest during the year 2015-16 as compared to rest of the years.

Table 1.1: Cement Production in India (In million tons)

Month	2013-14		2014-15		2015-16		2016-17	
	For Month	Cum	For Month	Cum	For Month	Cum	For Month	Cum
April	22.35	22.35	23.98	23.98	23.66	23.66	24.69	24.69
May	21.82	44.17	23.65	47.64	24.29	47.95	24.89	49.58
June	20.24	64.41	22.96	70.60	23.62	71.57	26.06	75.64
July	19.48	83.89	22.70	93.30	23.01	94.58	23.33	98.97
August	18.66	102.55	20.51	113.81	21.62	116.20	22.28	121.26
September	21.03	123.58	21.80	135.61	21.44	137.64	22.63	143.88
October	20.61	144.19	20.36	155.97	22.84	160.47	24.26	168.15
November	18.86	163.05	20.76	176.72	20.41	180.88	20.52	188.66
December	22.28	185.33	23.15	199.87	24.11	204.99	22.00	210.66
January	23.58	208.91	23.74	223.61	25.93	230.91	22.49	233.15
February	21.94	230.85	22.46	246.07	25.49	256.41	21.45	254.61
March	24.80	255.65	23.97	270.04	27.05	283.46	25.21	279.81
CAGR 3.06 per cent								

The total production of cement is increased to 279.81 million tons during 2016-17 as compared to 255.65 million tons during 2013-14 showing a compound annual growth rate of 3.06 per cent.

FIGURE 1.1(a)

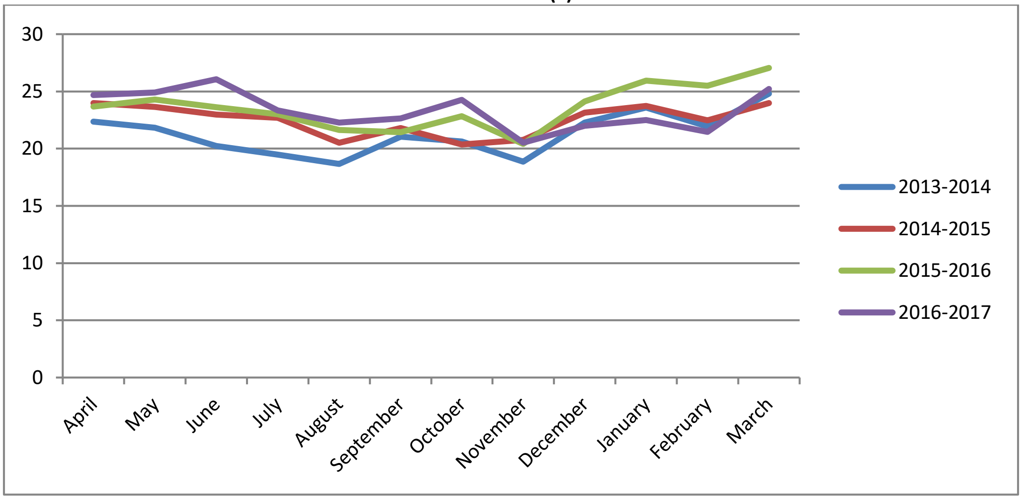
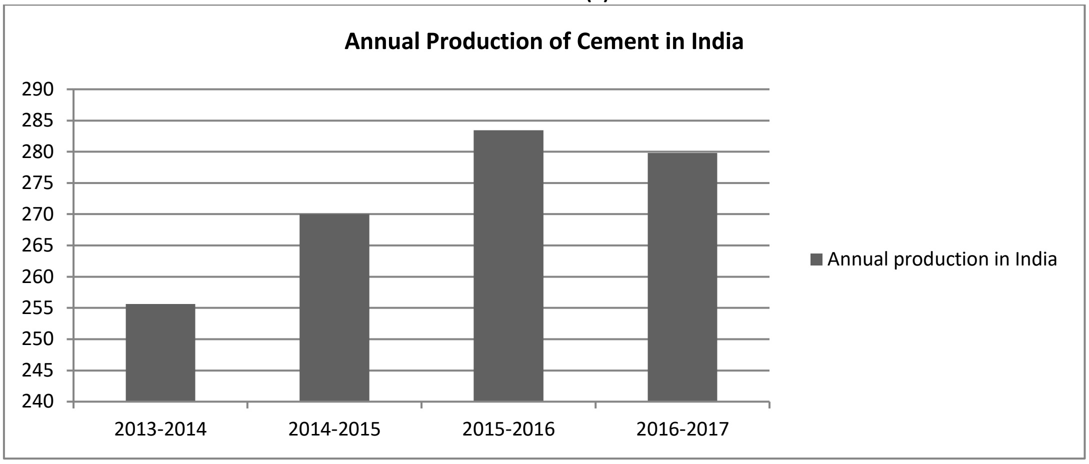


FIGURE 1.1 (b)



REVIEW OF LITERATURE

Lola (2010) recommended that a centrally coordinated, internally consistent and a holistic approach and a linkage between the various sectors of the economy towards the development of infrastructure services is important to the development of manufacturing sector. **Bhattacharyajea and De (2012)** concluded that the combination of successive increases in cement prices was only due to decreasing capacity utilization and increasing capacity installation by big players for the purpose of fixing of price and limiting the supply of cement. **Gopi (2015)** evaluated the financial performance of three cement companies viz. ACC, Gujarat Ambuja and UltraTech Cement with the help of DuPont approach and concluded that all three leading cement companies declined drastically during 2006-2015. **Bediako et al. (2016)** concluded that the green cement had a delayed setting time than Portland cement. The application of chemical mixture was necessary to improve the flow properties of the green cement. **Anantharaman (2017)** in a study on energy audit in cement industry identified the possibility of saving thermal energy upto 1000 kJ per kg of clinker by controlling the air infiltrate, reducing the size of fans and drives etc. for better energy conservation in cement industry and emphasized to conduct periodical energy audit to measure the efficiency.

NEED AND SCOPE OF THE STUDY

Cement is considered as one of the basic ingredient for infrastructure development. Cement industry in Himachal Pradesh is dominated by private sector and there is no comprehensive study found on the performance of cement industry in Himachal Pradesh. The present study is focused on three major cement producing companies in the state viz. ACC Limited, Jaypee Associate Ltd. (acquired by UltraTech), and Gujarat Ambuja Cement Ltd.

METHODOLOGY OF THE STUDY

The present study is based on both primary and secondary sources of data. A sample of 300 respondents has been selected on random basis from the sample population. Data is analyzed with the help of CAGR, percentage, mean, standard deviation, and chi-square test and the results have been presented in the form of figures, charts and diagrams. Summary, conclusion and suggestions have been given on the basis of analysis and interpretation of data with the help of SPSS software and MS Excel programme.

ANALYSIS AND INTERPRETATION OF DATA

Table 1.2 shows the income based classification of respondents. It shows that a large number of respondents earned Rs.1.5 lac to Rs.2.5 lac annually. It is evident from the table that 63.3 per cent of total respondents fall in this category.

TABLE 1.2: INCOME-WISE CLASSIFICATION OF THE RESPONDENTS

CLASSIFICATION	FREQUENCY	PERCENT
Below Rs. 50,000	22	7.3
Rs. 50,001 to 150,000	60	20
Rs. 1,50,001 to 2,50,000	190	63.3
above Rs. 2,50,000	28	9.3
Total	**300**	**100**

FIGURE 1.2

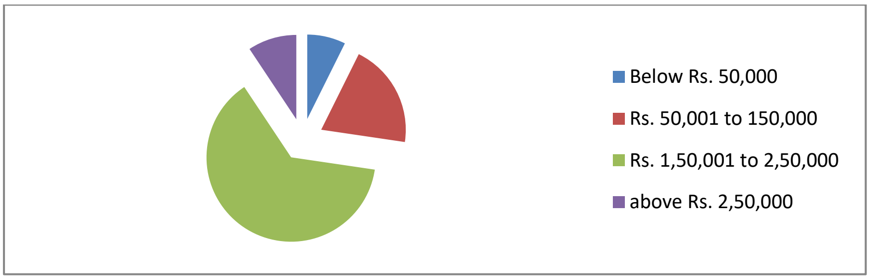


Table 1.3 shows the age-wise classification of the respondents. It is evident from figure 1.3 that 53.3 per cent of respondents are between 45-55 years' of age as compared to 1.3 per cent at the age of 55 years or above.

TABLE 1.3: AGE-WISE CLASSIFICATION OF THE RESPONDENTS

CLASSIFICATION	FREQUENCY	PERCENT
Below 35 years	34	11.3
35-45 years	102	34
45-55 years	160	53.3
Above 55 years	4	1.3
Total	**300**	**100**

FIGURE 1.3

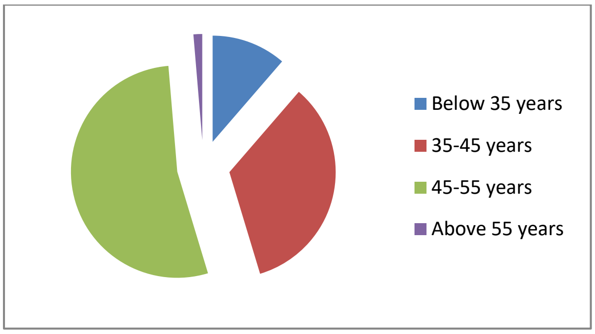


Table 1.4 represents the gender-based classification of the respondents under study and shows that 74 per cent of respondents are in male category as compared to 26 per cent of female.

TABLE 1.4: GENDER-WISE CLASSIFICATION OF THE RESPONDENTS

CLASSIFICATION	FREQUENCY	PERCENT
Male	222	74
Female	78	26
Total	**300**	**100**

FIGURE 1.4

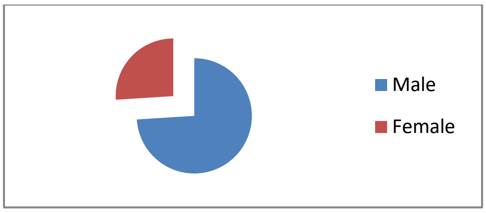


Table 1.5 shows the education-wise classification of respondents. It shows that the 51.3 per cent of respondents are up to matric and only 5.3 per cent are graduated or above.

TABLE 1.5: EDUCATION-WISE CLASSIFICATION OF THE RESPONDENTS

CLASSIFICATION	FREQUENCY	PERCENT
Illiterate	40	13.3
Up to Matric	154	51.3
10+2	90	30
Graduate & above	16	5.3
Total	**300**	**100**

FIGURE 1.5

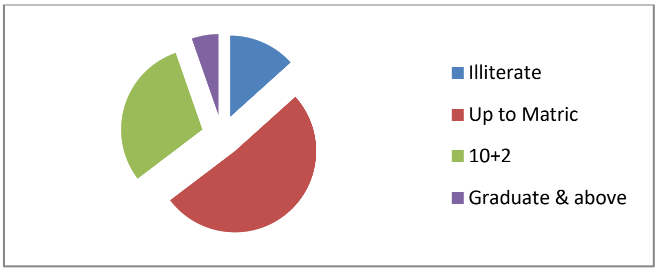


TABLE 1.6: NATURE OF RESPONSES ON DIFFERENT STATEMENTS ON THE BASIS OF INCOME-WISE CLASSIFICATION OF RESPONDENTS

Statement	SA	A	N	D	SD	Total	Mean	S.D.	X^2 Value	P Value
Modernization of Infrastructure	108 (36)	68 (22.7)	30 (10)	40 (13.3)	54 (18)	300 (100)	**3.45**	**1.524**	**37.727**	**.000***
Housing Development Facilities	42 (14)	114 (38)	34 (11.3)	58 (19.3)	52 (17.3)	300 (100)	**3.12**	**1.348**	**34.024**	**.001***
Construction of Parks & Picnic Spots	28 (9.3)	130 (43.3)	32 (10.7)	50 (16.7)	60 (20)	300 (100)	**3.05**	**1.302**	**23.479**	**.024****
Providing Electricity & Water Supply Facility	38 (12.7)	126 (42)	28 (9.3)	46 (15.3)	62 (20.7)	300 (100)	**3.11**	**1.379**	**42.854**	**.000***
Opening of Consumer Goods Shops	36 (12)	118 (39.3)	32 (10.7)	52 (17.3)	62 (20.7)	300 (100)	**3.05**	**1.370**	**47.252**	**.000***
Providing Road Facilities	118 (39.3)	34 (11.3)	32 (10.7)	52 (17.3)	64 (21.3)	300 (100)	**3.30**	**1.622**	**88.865**	**.000***
Contributing towards Environment Protection	35 (11.7)	112 (37.3)	36 (12)	57 (19)	60 (20)	300 (100)	**3.02**	**1.355**	**19.336**	**.081*****
Helping Women Empowerment	31 (10.3)	108 (36)	30 (10)	58 (19.3)	73 (24.3)	300 (100)	**2.89**	**1.391**	**9.589**	**.652*****
Providing Rehabilitation and Resettlement Facilities	35 (11.7)	112 (37.3)	30 (10)	50 (16.7)	73 (24.3)	300 (100)	**2.95**	**1.409**	**17.578**	**.129*****

Source: Primary Survey, *significant at 1% level, **significant at 5% level, ***insignificant, SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree

Table 1.6 signifies the nature of responses of primary data on the basis of income-wise classification on different aspects related with infrastructure development in the state of Himachal Pradesh and shows that mean score is highest (i.e. 3.45) as compared to average mean score (i.e. 3) on the statement that cement industry in Himachal Pradesh contributing towards modernization of infrastructure and chi- square test also supports the result whereas the mean score is lowest (i.e. 2.89) as compared to average mean. This signifies that the cement industry is not contributing to empower women of the local area and the P-value of chi-square test is also insignificant at 5% level of significance which also supports the results.

SUMMARY, CONCLUSION AND SUGGESTION

On the basis of above analysis, it can be concluded that cement industry in Himachal Pradesh contributing significantly towards infrastructure development of the State in various ways like modernization of infrastructure, providing road facilities and constructing parks and picnic spots in nearby areas of plant. The study recommended emphasizing on contributing women empowerment and rehabilitation and resettlement facilities to the displaced people of mining-affected areas. Further, it is also suggested to take immediate steps to protect environment as a whole.

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A STUDY ON VOLATILITY OF PRECIOUS METALS TRADED IN INDIA

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ABSTRACT

History states that civilizations have stored value in precious metals. Gold has the advantage of practicality being a strong metal that has factually, kept its appeal. Investors of the precious metals market go back and forth on silver, consecutively appreciating it as a store of value. Demand besides changes in government policies on gold and silver in India makes its price to fluctuate. A moving average analysis of 5 days and 10 days are generally considered to shorten the short-span variations and highlights longer-term movements or series.

KEYWORDS
gold investment, silver investment.

JEL CODES
L61, G11.

INTRODUCTION

In olden time the societies have kept their values in precious metals. This is almost-widespread recognition that the value makes precious metals an excessive long-term investment. Investment in precious metals act as a safety against the aspects that range from inflation to civil conflict. Investment on Precious metals remain to be attractive to investors for many reasons. In India Gold and silver are traded as Precious Metal. Gold is considered to be a strong metal that has historically, kept its demand. Investors belonging to precious metals market go towards Gold and Silver, consecutively valuing it as a stock of value. When investments such as bonds, real estate and the stock market goes down, people shift towards precious metals because these investments incline to increase its value in periods of disorder. If an investment is made during the safe bet, investors can make an income by selling some of the investment when prices go up. The study's main approach is to examine the volatility of the key precious metals traded n India. To accomplish this task, moving average method is implied.

REVIEW OF LITERATURE

1. **Jonathan A. Batten, Cetin Ciner, Brian M. Lucey (2010),** The paper models the monthly price volatilities of four precious metals (gold, silver, platinum and palladium prices) and its investigation through the macroeconomic determinants (business cycle, monetary environment and financial market sentiment) of these volatilities. However, there is a partial evidence that the identical macroeconomic factors together impact the volatility processes of the four precious metal. The found results are reliable with the understanding that precious metals are too distinct to be considered as a single asset class or else single index.
2. **Piyush Pandey (2014),** This study, finds that the price discovery and volatility spill over between spot and future segments of gold market in India. Cointegration tool is used to study the price discovery process and suggested bidirectional causality between spot and futures. A bivariate EGARCH model is used to study volatility spill over and the results give out information transmission through volatility spillover. It suggests that the spot market provides way for the futures.
3. **Dr. Vipin Kumar Aggarwal, Silky Jain (2014),** the study determines the trend in silver trading in Indian stock market. In order to find the trend, the monthly closing spot prices of silver have been taken from April - 2005 to March - 2014. The procedure of simple moving averages and annual high and low have been used to know the trend. Both the methods are used for the analysis which points out the bullish trend in silver prices till the middle of 2011.
4. **Ludovico Zaraga (2014),** the study provides evidence that the decisions utilized to adopt the gold standard and the exchange rate are exogenous to trade in this particular setup. It utilizes a gravity model to determine the effects of exchange rate volatility and depreciation on trade. It also helped in knowing the exchange rate volatility and it's on India's imports and exports.
5. **Sudarvel, R.Velmurugan and K.Kumuthadevi (2016)** in their study examines that in Indian stock market High mean returns are noticed during the Second half of the month (0.0216) and low mean returns are found during the First half of the month (- 0.0662). While comparing the variance, high level of volatility is noticed on the First half of the month (0.157) and low level of volatility is noticed in Second half of the month (0.112).

STATEMENT OF THE PROBLEM

Gold and Silver are precious metals that may be used as a border against inflation, deflation or currency depression in India. The empirical validity of these predictions are not well determined. Volatility plays as the major risk factor in price determination. Moving average analysis is observed to determine or predict the future risk factor and price trend in precious metal investment.

OBJECTIVES

1. To study different factors affecting the Precious metals price
2. To examine how price of Precious metals fluctuate in Indian Commodity Market.

RESEARCH METHODOLOGY

Moving average Analysis is generally considered to know the volatility or trends or cycles. Here 5 days and 10 days moving average are used. Which depicts or gives idea to the investors or readers regarding volatility, fluctuations or price movements of precious metals. Here to be considered are Gold and Silver Precious metals commodity which are traded in India.

SOURCE OF DATA

This study uses secondary data- Precious metals spot price for last three years (2014 – 2017). The precious metal considered are Gold and Silver which are traded in India. The data are collected from MCX of both Gold and Silver.

FACTORS AFFECTING PRECIOUS METAL (GOLD AND SILVER) TRADING

GOLD

Gold as a bullion commodity plays very important role in the cultural heritage of India. The factors that influence Gold price in India are as follows.
1. There is a high demand for Gold in India due to its huge supply in jewellery market is the number one factor.
2. India is also the world's largest consumer. Presently there's only one functioning gold mine in India called as Kolar that cannot physically please high demands of the country.

3. Rising population in India triggers even greater demand.
4. Payable to low interest rates, gold investment in India is a preferred
5. US dollar is one of the major factors affecting gold price in India today.
6. Government policy directly affects current gold prices in India.
7. Indians prefer to buy gold bullion or its investment to protect themselves from depression.

SILVER

Demand

Silver always has a good demand in India. The demand is being generated by both the jewellery sectors and industrial sectors. In future, it will become tough to come by silver and the price may be driven up the limited supply thus putting long term investors in a very good financial position.

Common man's gold

Silver called as common man's gold. The purchase of silver is much easy when compared to gold. As silver prices continue to rise, investor's will get options to invest in silver, rather than bonds, real estate etc.

Timing the markets

Some of the most basic ways to time the market would be to wait for the wedding season or a festival. The demand for both silver and gold goes up.

No Bank accounts

In India, majority of the population is not familiar with banking and taxation. So it is difficult for them to invest in a number of instruments available. For them, silver is one of the places for investment.

Easy to store

There are many e-silver products that can be traded on the NSEL (National spot Exchange Limited). That allows people to invest in silver without a worry about storing the metal.

Liquidity

Silver metal can help investors in the situations of emergencies. Even if the currency losses its value, Silver will not lose.

MOVING AVERAGE ANALYSIS

TABLE 1: GOLD MONTHLY PRICE (APRIL 2014 TO MARCH 2017)

Month	Year	Total Value (In Lakhs)	5 Days MA	10 Days MA
APR	2014	7691112.48		
MAY	2014	8735641.18		
JUN	2014	8020296.29		
JUL	2014	10356115.44		
AUG	2014	7717366.86	8504106.45	
SEP	2014	10140084.89	8993900.93	
OCT	2014	7506123.81	8747997.46	
NOV	2014	10053571.48	9154652.50	
DEC	2014	9356017.22	8954632.85	
JAN	2015	10846907.32	9580540.94	9042323.70
FEB	2015	8414732.50	9235470.47	9114685.70
MAR	2015	9967724.62	9727790.63	9237894.04
APR	2015	7381059.32	9193288.20	9173970.35
MAY	2015	7863679.43	8894820.64	8924726.75
JUN	2015	7157998.81	8157038.94	8868789.94
JUL	2015	9494956.81	8373083.80	8804277.13
AUG	2015	9880285.99	8355596.07	9041693.35
SEP	2015	9160210.27	8711426.26	8952357.23
OCT	2015	8469179.77	8832526.33	8863673.48
NOV	2015	7548431.18	8910612.80	8533825.87
DEC	2015	7854824.00	8582586.24	8477835.02
JAN	2016	9292778.70	8465084.78	8410340.43
FEB	2016	12746101.22	9182262.97	8946844.62
MAR	2016	13095677.03	10107562.43	9470044.38
APR	2016	9909018.21	10579679.83	9745146.32
MAY	2016	11683003.01	11345315.63	9963950.94
JUN	2016	13503051.40	12187370.17	10326227.48
JUL	2016	12413030.61	12120756.05	10651509.51
AUG	2016	10139753.92	11529571.43	10818566.93
SEP	2016	8648578.82	11277483.55	10928581.69
OCT	2016	7535387.65	10447960.48	10896638.06
NOV	2016	8126262.45	9372602.69	10779986.43
DEC	2016	3991038.76	7688204.32	9904480.19
JAN	2017	5585361.62	6777325.86	9153448.65
FEB	2017	5862708.48	6220151.79	8748817.67
MAR	2017	6055257.92	5924125.85	8186043.16

Source: MCX

MA- Moving Average

CHART 1: GOLD MONTHLY PRICE (APRIL 2014 TO MARCH 2017)

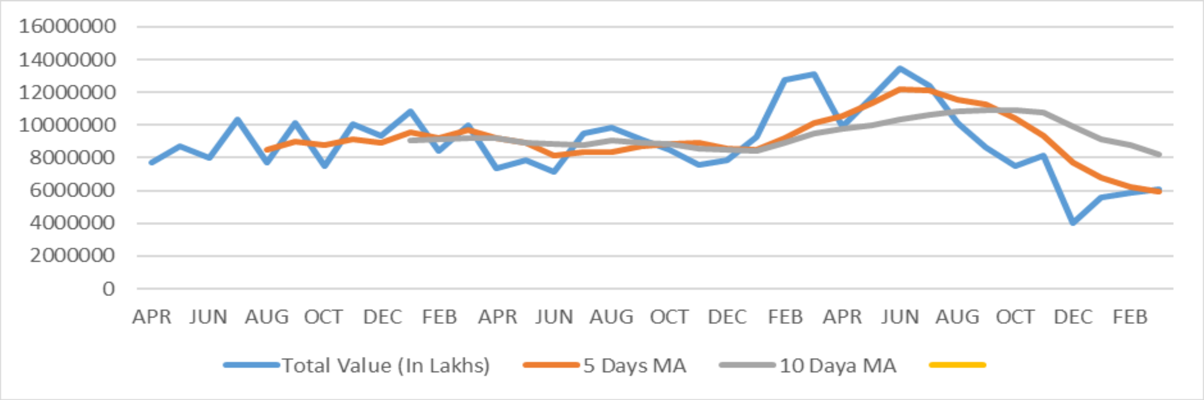


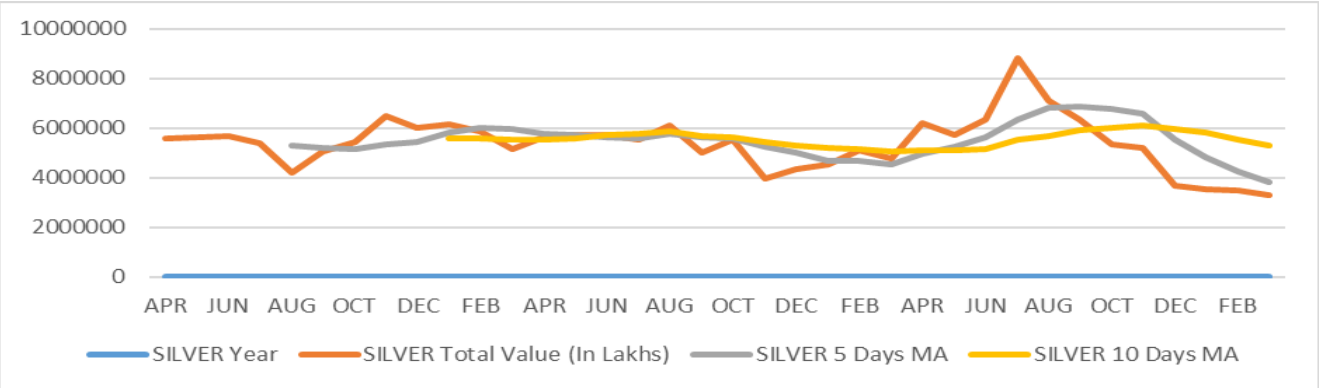
TABLE 2: SILVER MONTHLY PRICE (APRIL 2014 TO MARCH 2017)

Month	Year	Total Value (In Lakhs)	5 Days MA	10 Days MA
APR	2014	5573993.28		
MAY	2014	5631999.92		
JUN	2014	5701614.43		
JUL	2014	5377238.12		
AUG	2014	4206010.50	5298171.25	
SEP	2014	5077664.85	5198905.56	
OCT	2014	5466074.85	5165720.55	
NOV	2014	6510720.65	5327541.79	
DEC	2014	6016556.01	5455405.37	
JAN	2015	6151120.25	5844427.32	5571299.29
FEB	2015	5873142.48	6003522.85	5601214.21
MAR	2015	5179556.82	5946219.24	5555969.90
APR	2015	5641868.82	5772448.88	5549995.34
MAY	2015	5740698.72	5717277.42	5586341.40
JUN	2015	5743309.38	5635715.24	5740071.28
JUL	2015	5534712.07	5568029.16	5785776.01
AUG	2015	6128370.92	5757791.98	5852005.61
SEP	2015	5004953.76	5630408.97	5701428.92
OCT	2015	5553612.29	5592991.68	5655134.55
NOV	2015	3980192.76	5240368.36	5438041.80
DEC	2015	4333918.32	5000209.61	5284119.39
JAN	2016	4541803.47	4682896.12	5220344.05
FEB	2016	5109362.34	4703777.84	5167093.40
MAR	2016	4753025.09	4543660.40	5068326.04
APR	2016	6203325.47	4988286.94	5114327.65
MAY	2016	5705728.69	5262649.01	5131429.31
JUN	2016	6357908.79	5625870.08	5154383.10
JUL	2016	8837607.29	6371519.07	5537648.45
AUG	2016	7123357.93	6845585.63	5694623.02
SEP	2016	6328969.16	6870714.37	5929500.66
OCT	2016	5335402.27	6796649.09	6029649.05
NOV	2016	5221474.30	6569362.19	6097616.13
DEC	2016	3656522.11	5533145.15	5952332.11
JAN	2017	3558132.92	4820100.15	5832842.89
FEB	2017	3478849.91	4250076.30	5560395.34
MAR	2017	3284818.03	3839959.45	5318304.27

Source: MCX

MA- Moving Average

CHART 2: SILVER MONTHLY PRICE (APRIL 2014 TO MARCH 2017)



FINDINGS

Moving Average Method depicts that 10 days and 50 days moving average are calculated as apart of moving average analysis from daily price of gold and silver which brings out average of fluctuation happening in their prices daily.

- US dollar value brings a change in gold price (i.e.) the prices move upward or downward. Similarly, India being the second largest consumer of gold in the world and government policies inducted also brings the change in gold prices.
- Silver considered as common man's gold makes its price to volatile due to industrial demand, liquidity position and government regulation.
- This analysis depicts the risk and trend of gold commodity trading to traders.

SUGGESTION

Traders or Investors should always have a keen look at precious metal market price to know the changes happening. However, the various parties that use precious metals as an investment should observe the futures markets in order to know if hedging precious metals price volatility is an appropriate risk management tool.

CONCLUSION

Precious metals are significant mechanisms of investment for individuals as well as for institutions, mainly due to acting as a hedge or safe haven. A vital question to many investors and traders is that whether these precious metals are valued efficiently, which is a fundamental property of their return distributions over time. The certainty of gold and silver markets show a strong mixed trend, which indicates that these markets have been gradually becoming more efficient as time goes by. In particular, gold market has been the most efficient, which may be strongly related with its attractiveness as an investible asset and its effectiveness as a vehicle for risk management.

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THE U.S. ECONOMIC GROWTH AND FORECAST FOR THE ECONOMY'S FUTURE

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ABSTRACT
In this study, the path of the U.S. Economy through 1948-2013 observed and its growth rate is analyzed. The study tries to figure out the reasons for slowdown of the U.S. economic growth. It further analyzes the long term trend of economic growth in the U.S. economy and attempt to forecast growth into the near future. The study undertakes econometric methods in modeling the path of the U.S. economy, estimating economic growth and forecasting the future economic path.

KEYWORDS
gross domestic product, path of the economy, business cycles, employment, capital, growth accounting, growth forecast.

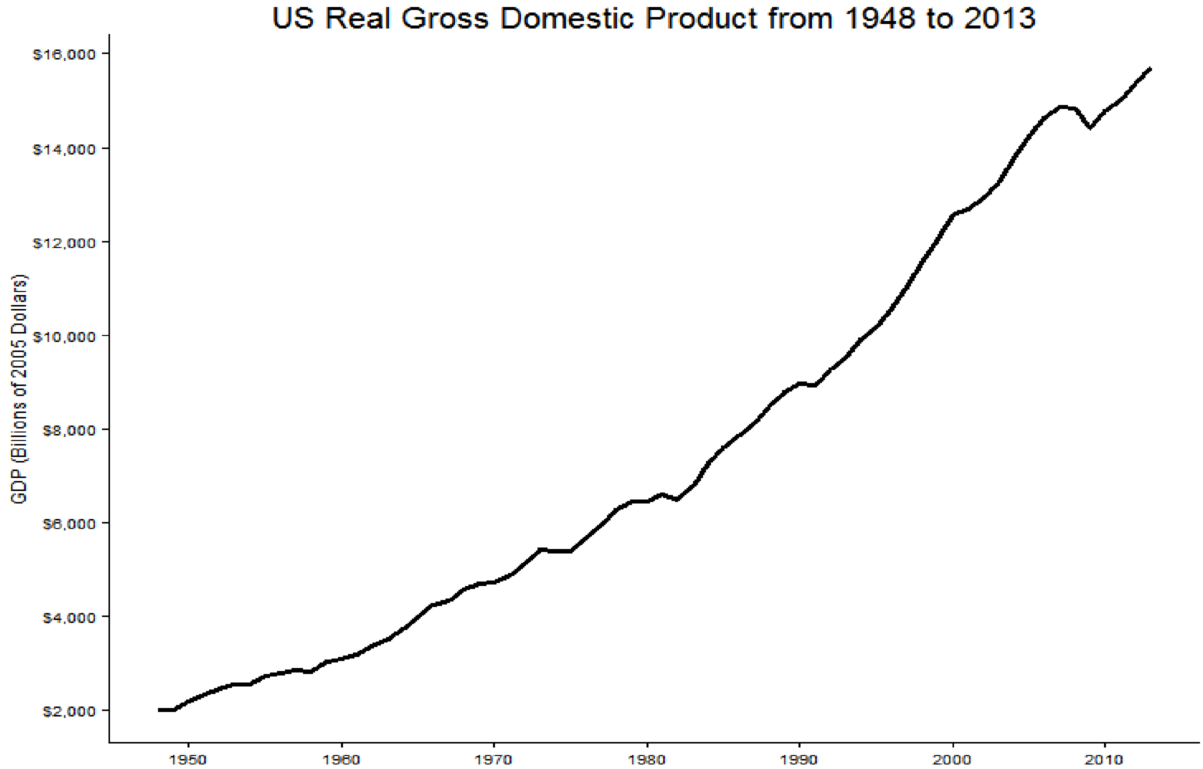
JEL CODES
O51, F59, E44.

INTRODUCTION
Looking back into the history, there were many times when the U.S. economy significantly grew and flourished. But there were also times when the economy declined or had recession. In spite of quite a few recessions in U.S. history, the county's economy has grown substantially overall. This study will analyze the U.S. economic growth since 1948, the growth rate of the economy and the long term trend of economic growth in the U.S. Going further, the study also attempts to forecast growth into the near future. Modeling the U.S. economy path, estimating economic growth and forecasting is carried out using econometric techniques.

DATA DESCRIPTION
All the data series included in the analysis of this study can be described as follows: The U.S. Gross Domestic Product (GDP) will be used as a measure of the performance of the US economy. Specifically, real GDP (RGDP) will be used to measure the performance of the economy after adjusting for inflation. Employee compensation (COMP), full-time employment (EMP), capital stock (CAP), and capacity utilization (UTIL) will be used as explanatory variables to determine their interaction with real GDP. These variables play a major part in the national accounting model in economics where total output (RGDP) is equal to the sum of consumption, investment, and government spending.

THE PATH OF THE U.S. ECONOMY
Following figure depicts real GDP from 1948 to 2013. There exists an increasing trend over the entire time period. Beginning at $2.02 trillion in 1948, it reaches $16.77 trillion in 2013; thus growing more than eight times the level of GDP in 1948. To compare any two years during this time period, it is facilitated by equating the value of the US dollar from each year to the value of the dollar in 2005 i.e. using real GDP.

GRAPH 1



To account for average growth of the real GDP, a mathematical model, particularly the second order exponential model can be used. From the general understanding, the rate of growth of real GDP may not be constant. Using second order exponential model, it can be tested whether the growth rate is constant or not. Thus the second order exponential model is given as follows:

$$y_t = y_0 e^{r_1 t + r_2 t^2}$$

This model allows the growth rate to either increase or decrease which appears to be more practical. Above Equation can be linearized by using natural log as follows:

$$\ln(y_t) = \ln(y_0) + r_1 t + r_2 t^2$$

Using the linearized equation, the results of the regression are obtained as:

$\ln(RGDP) = 7.565a + 0.0417t - 0.0001t^2$ R^2 =.9972

(0.013)*** (0.0009)*** (0.0000)***

The results are a bit complicated to interpret. Here, the estimated values of r_1 and r_2 must be considered together. The first coefficient (r_1) shows that real GDP grew by 4.17% in 1949, the second coefficient (r_2) shows that that the growth rate decreases by 0.01 percentage points per year. The growth rate is not assumed to be constant here. Thus, even though the rate of growth in real GDP is estimated to be positive, it increases with a decreasing rate. The growth rate changes from year to year and it is no longer constant. Differentiating with respect to time gives an equation to find the estimated growth rate of a given year. This shows that there is not one value for the growth rate, but that the value is different depending on the time period

U.S. BUSINESS CYCLES

Taking the difference between the second order exponential model and the real GDP allows to de-trend the data, thus emerging with a picture of business cycles in the U.S. as shown in following figure. The path estimated by the regression represents the long term trend. Whenever actual real GDP is above the model path, the economy is doing better than average. On the other hand, when the actual path moves below the model, the economy is doing worse than average.

GRAPH 2

The peaks and troughs in the de-trended series above, depict the business cycles in the U.S. economy.

EXPLAINING AND FORECASTING ECONOMIC GROWTH

The real GDP is assumed as the primary indicator of the performance of a national economy in this study. As the real GDP growth has been determined to be non-constant, this study tries to disintegrate the real GDP growth into the factors playing a key role in determining its growth. Economic theory suggests that real GDP is explained by the levels of technology, labor and capital. The relationship of these factor is typically described by a Cobb-Douglas production function denoted as:

$Y = (AL)^{\beta} K^{\alpha}$

By linearizing equation we get, $g_Y = \beta g_A + \beta g_L + \alpha g_K$

Regressing g_Y on g_L and g_K yields:

$g_Y = 0.018 + 0.406 g_L + 0.249 g_K$ $R^2 = 0.8561$

(0.018)*** (0.077)*** (0.031)***

The estimates for the share of output that each factor contributes to real GDP can be obtained using the above results. A method of substituting the average growth rates of labor and capital from equation and dividing each term by the average growth rate of real GDP is provided by growth accounting.

TABLE 1: GROWTH ACCOUNTING

Output	Technology	Labor	Capital
3.16%	1.83%	0.60%	0.72%
100.00%	**58.04%**	**19.06%**	**22.90%**

Growth Accounting indicates that technological growth constitutes for 58.04% of the growth in output, labor growth constitutes for 19.06% and capital growth constitutes for 22.90%. This shows that technological growth has the majority impact on output growth compared to the other two factors, and capital growth contributes slightly more than labor growth.

Technological growth being a key factor in determining output growth rate in this model, thus expanding the technological growth model to allow further possible change would be given as:

$A = a_0 e^{r_1 t + r_2 t^2 + r_3 t^3 + r_4 r^4}$

Regressing of this model yields:

$g_Y = 0.0296 - 0.0012t + 0.00004t^2 - 0.0000004t^3 + 0.3641 g_L + 0.2548 g_K$ $R^2 = 0.8834$

(0.004)*** (0.001)** (0.000)* (0.000)** (0.074)*** (0.029)***

Thus, this model indicates that when accounting for changes in the growth rate of technology, a 1% increase in labor leads to a 0.36% increase in output and a 1% increase in capital leads to a 0.25% increase in output. The R^2 value indicates that the model explains 88.34% of the variation in the growth rate of real GDP. This model has the high explanatory power (R-square value) compared to most other models.

CONCLUSION

From this study, it can be seen that the output of the U.S. economy is growing currently at the rate of about 3%. However, the output growth is slowing and is predicted to go down further in the coming future. Disintegrating output growth, it is understood that the technological growth plays a vital part in contributing the output growth and the remaining share is held by the labor & capital growth. The technological growth rate is also further analyzed and forecasted. The forecast depends upon the model selected. Proceeding further, a concept of profit maximization, which is more common in micro-economics, is also brought into picture and analyzed.

From all the above procedures, it can be inferred that keeping the technological growth rate away from declining sharply i.e. by investing more funds into research and developmental sectors and supporting innovations would most likely keep the technological growth rate up. And as the technological growth rate plays a key role in maintaining the output growth rate of the economy, maintaining technological growth would interpret into maintaining output growth. Managing capital and labor growth rates would also complement the growth of output.

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FUNDAMENTAL ANALYSIS OF SENSEX COMPANIES

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ABSTRACT

BSE sensex is considered as barometer of Indian economy. It is important to note loosing or winning in politics affects sensex. Speculators try to gain on immediately with every information. Analysts and investors use the Sensex to observe the overall growth, development of particular industries, and booms and busts of the Indian economy. The BSE is the world's 11th largest stock exchange with an overall market capitalization of more than $ 2 Trillion as of July, 2017. More than 5500 companies are publicly listed on the BSE. Of these, as of November 2016, there are only 7,800 listed companies of which only 4000 trade on the stock exchanges at BSE and NSE. Hence, the stocks trading at the BSE and NSE account for only about 4% of the Indian economy.

KEYWORDS
Sensex, Bombay Stock Exchange, Earnings per share, Net Profit Margin, Operating Profit Margin.

JEL CODE
G10.

INTRODUCTION
Sensex, otherwise known as the S&P BSE Sensex index, is the benchmark index of the Bombay Stock Exchange (BSE). It is composed of 30 of the largest and most actively-traded stocks on the BSE, providing an accurate gauge of India's economy. Initially compiled in 1986, the Sensex is the oldest stock index in India. The term Sensex was coined by Deepak Mohoni, a stock market analyst. It is a portmanteau of the words Sensitive and Index The Bombay Stock Exchange (BSE) is an Indian stock exchange located at Dalal Street, Kala Ghoda, Mumbai (formerly Bombay), Maharashtra, India. Established in 1875, the BSE is Asia's first stock exchange, It claims to be the world's fastest stock exchange, with a median trade speed of 6 microseconds, The BSE is the world's 11th largest stock exchange with an overall market capitalization of more than $ 2 Trillion as of July, 2017. More than 5500 companies are publicly listed on the BSE. Of these, as of November 2016, there are only 7,800 listed companies of which only 4000 trade on the stock exchanges at BSE and NSE. Hence the stocks trading at the BSE and NSE account for only about 4% of the Indian economy. SENSEX is a free-float market-weighted stock market index of 30 well-established and financially sound companies listed on Bombay Stock Exchange. The 30 component companies which are some of the largest and most actively traded stocks, are representative of various industrial sectors of the Indian economy. Published since 1 January 1986, the S&P BSE SENSEX is regarded as the pulse of the domestic stock markets in India. The base value of the S&P BSE SENSEX is taken as 100 on 1 April 1979, and its base year as 1978–79. On 25 July 2001 BSE launched DOLLEX-30, a dollar-linked version of S&P BSE SENSEX.

REVIEW OF LITERATURE
Literature review is a study involving a collection of literatures in the selected area of research in which the researcher has limited experience, and critical examination and comparison of them to have a better understanding. It also helps the researchers to update the past data, data sources and results and identify the gaps, if any in the researches. Thus, the reviews in the present study consist of the ones discussed below and they reveal that there are very scant studies in India emphasizing on the fundamental analysis of the industry sector.

- Jim Berg (1999) conducted a study – "Fundamental Analysis Using Internet". This study examined that fundamental analysis looks at the fundamental issues that drive the value of the particular company. These issues include its financial position, its industry sector, and the current economic environment. The objective was to identify companies that may be considered undervalued in the market with a view to investing when the time is right. In this study, Jim Berg outlined more about what fundamental analysis is and how it could be used.
- In this study, John Colnan (1994), senior Research Analyst from SHAN Stockbroking's Research Department provides some briefs pointers on what information to look for and how to make sense of what is available.
- Mark P. Bauman (1996) conducted a study named, "A Review of Fundamental Analysis Research in Accounting". This paper has outlined the development of fundamental valuation model and reviewed related empirical work.
- First, an accounting-based expression for a firm's equity value has been developed into a rich theoretical framework. They verified its descriptive validity regarding them apping of accounting numbers into stock prices. This paper identified three major issues associated with practical implementation of the model; the prediction of future profitability, the length of appropriate forecast horizon, and the determination of the appropriate discount rate.
- Dr. Maria Nevis Soris and Dr. V.Sornaganesh (2012) conducted a study entitled- "Fundamental Analysis of NBFC in India" This study conducted to examine the economic sustainability of the five major NBFC in Indian NBFC sector and its financial performance.
- Dr. V.Sornaganesh and D. Maheswari (2014) TCS as a welcome game changer that offers significantly lower pricing, better service levels, more sophisticated offerings, a customer-centric mindset and a global footprint.
- K. Sivagnana Sankari and Dr.V.Sornaganesh (2016): There are still challenges in the current economic environment like inflation, interest burden and pressure on margins etc., To counter the falling income growth, the retailers have been re-locating the existing stores in view of the consumer mix relevant to the particular store format or closure of unviable stores unable to attract footfalls or generate desired revenues on per square feet basis.

- Dr. V. Sornaganesh and A.V.Chellamma (2016): Speculations being present invariably in all fields of business, investors, at times, await some inspiration or motivation from reliable sources. Inspite of continuous recommendation of FDI from 2011, investors have not come forward to invest in M&E field because the reforms undertaken by the Government are much challenging. Further in order to attract the foreign investors, the government has to ensure stable currency environment and consistency in taxation and policy. Gradually the field is witnessing investment from various people in the past one year, which is also expected to gather momentum in forthcoming decades. Based on forecasts for 138 countries, global digital TV penetration is likely to reach 98% of television households in 2020, up from 40% in 2010 and 68% in 2014. By 2020, 94 countries are expected to be completely digital compared with only 12 in 2013.

OBJECTIVES OF THE STUDY

1. To test the financial efficiency of the Sensex Companies.
2. To acquire practical exposure of financial analysis of Companies.
3. To analyses the profitability position of the Sensex Companies.
4. To analysis the efficient company in controlling costs and expenses of sensex companies.
5. To reveals the effective company in the terms of generating Earnings per share.
6. To find out most efficient company in generating yield over assets and hence their overall efficiency.
7. To take decisions cautiously after studying risks involved in the same.
8. To offer suggestions on the basis of findings of the study.

HYPOTHESES FORMULATED

- H_1: The Operating Profit Margin (OPM) position of 30 Sensex companies does not differ significantly.
- H_2: The Net Profit Margin (NPM) position of 30 Sensex companies does not differ significantly.
- H_3: The Earning Per Share (EPS) position of 30 Sensex companies does not differ significantly.
- H_4: The Return on Assets (ROA) position of 30 Sensex companies does not differ significantly.
- H_5: The Return on Networth (RONW) position of 30 Sensex companies does not differ significantly.

RESEARCH METHODOLOGY

The present study adopts an analytical and descriptive research design. The data of the30 Sensex Companies (for a period of five years from 2012 to 2017) has been collected from the annual reports published by the Sensex Companies. A finite sample size of 30 sensex companies has been selected for the purpose of the study. They are TCS, Reliance Industries, HDFC Bank, Infosys, Oil & Natural Gas Corporation, HDFC Housing Development, Coal India, State Bank of India, ITC, Hindustan Unilever, Tata Motors, Maruti Suzuki, Sun Pharmaceuticals, ICICI Bank, Larsen & Toubro, Bharti Airtel, Axis Bank, NTPC, Asian Paints, Wipro, Mahindra & Mahindra, Power Grid, Bajaj Auto, Hero Motors, Lupin, Adani Ports, GAIL, Dr.Reddys Laboratories, Cipla and Tata Steel. The variables used in the analysis of the data are Earning Per Share (EPS), Operating Profit Margin (OPM), Net Profit Margin (NPM), Return On Assets (ROA), Return On Networth (RONW).While interpreting the results, the statistical tool of one-way Analysis of Variance (ANOVA) has been used. In view of the objectives of the study listed above, exploratory research design has been adopted. Exploratory research is one, which largely interprets the already available information, and it lays particular emphasis on analysis and interpretation of the existing and available information, and it makes use of secondary data.

TIME PERIOD FOR THE STUDY

The study is conducted based on the audited financial statements of Sensex Companies for a period of 6 years (Mar 2012 to Mar 2017).

LIMITATIONS OF THE STUDY

- Only limited tools were used.
- Due to constraint of time, the researcher is not able to cover all the shares listed in BSE

TOOLS USED FOR ANALYSIS

1. **Financial Tools:** The Financial tool that is used for the purpose of analysis is Earning Per Share (EPS), Operating Profit Margin (OPM), Net Profit Margin (NPM), Return On Assets (ROA), Return On Net Worth (RONW).
2. **Statistical Tools:** The statistical tool that is used for testing hypothesis is One –way Analysis Of Variance (ANOVA).

ANALYSES AND INTERPRETATION

RATIOS USED FOR ANALYSIS

The ratios being calculated for the purpose of analysis of financial performance are:

- Operating Profit Margin (OPM)
- Net Profit Margin (NPM)
- Earnings per Share (EPS)
- Return on Assets (ROA)
- Return on Net worth (RONW)

OPERATING PROFIT MARGIN (OPM)

Operating Profit Margin indicates how effective a company is at controlling the costs and expenses associated with their normal business operations. A rise in the operating profit margin indicates a decline in efficiency. This ratio is used to test the efficiency of the business. This ratio is found out using the following formulae and expressed in percentage terms.

$$OPM = \frac{\text{Operating Profit}}{\text{Net Sales}} * 100$$

The Operating Profit Margin position of the sensex companies is depicted in Table 1 and discussed below:

TABLE 1: OPERATING PROFIT MARGIN (OPM) (IN %) POSITION OF SENSEX COMPANIES

SENSEX	OPM						Average
COMPANY	2012	2013	2014	2015	2016	2017	
TCS	34.43	32.49	36.44	32.75	33.92	32.45	33.74
Reliance Industries	8.61	8.13	7.95	9.67	16.36	17.97	11.44
Hdfc Bank	-0.28	-0.36	1.35	2.51	2.56	3.25	1.505
Infosys	35.5	33.38	31.57	34.64	32.7	31.94	33.28
Oil & Natural Gas Corporation	43.8	36.86	38.05	32.51	33.83	34.02	36.51
Housing Development	97.05	96.92	97.21	97.07	95.39	95.5	96.52
Coal India	2,158.95	3041.53	4989.41	3589.71	10042.67	4959.1	4796.89
State Bank Of India	-2.48	-1.61	-5.61	-6.21	-11.12	-14.23	-6.87
ITC	35.65	36.02	38.09	38.49	40.73	38.72	37.95
Hindustan Unilever	15.15	16.94	17.25	17.98	18.47	19.36	17.52
Tata Motors	5.79	4.42	2.48	-5.39	4.7	-1.67	1.72
Maruti Suzuki	6.18	7.29	8.77	10.15	11.45	14.74	9.76
Sun Pharmaceuticals	50.45	27.27	3.28	-12.56	-6.13	2.48	10.79
Icici Bank	-3.09	-0.05	-1.39	-2.03	-10.61	-17.91	-5.84
Larsen & Toubro	13.01	12.22	13.7	13.61	12.67	10.92	12.68
Bharti Airtel	20.07	17.87	19.87	30.74	23.67	18.74	21.82
Axis Bank	-5.35	-5.04	-3.87	-2.83	-2.8	-17.98	-6.31
NTPC	26.61	30.73	28.41	24.39	26.24	28.55	27.48
Asian Paints	17.5	17.23	16.68	16.94	19.5	21.16	18.16
Wipro	20.59	22.74	25.75	26.49	24.63	24.06	24.04
Mahindra & Mahindra	11.49	11.24	11.29	10.39	10.55	10.92	10.98
Power Grid	64.53	63.92	62.05	60.05	60.45	61.45	62.07
Bajaj Auto	21.41	21.33	22.99	20.5	23.73	24.51	22.41
Hero Moto	12.23	10.69	11.39	12.66	15.37	16.38	13.12
Lupin	19.19	24.66	35.35	32.98	34.75	32.99	29.98
Adani Ports	59.56	69.35	68.2	73.07	80.89	87.95	73.17
GAIL	13.5	13.15	11.16	8.07	7.34	12.85	11.01
Dr.Reddys Laboratories	19.62	21.51	26.03	21.21	19.59	16.47	20.73
Cipla	20.75	24.93	20.74	16.54	15.55	11.17	18.28
Tata Steel	33.21	27.19	27.99	20.56	23.99	18.22	25.19

As shown in the table, among all the sensex companies, Coal India has sustained the highest Operating profit margin followed by HDFC Housing Development, which has registered a reasonably higher margin. On an aggregate basis, Coal India is highly successful in controlling the expenses by registering the six years OPM of 4796.90. Thus it is found that Coal India is the most efficient company in controlling costs and expenses when compared to Sensex companies. The OPM position of sensex companies are compared and tested using the following hypothesis.

a) Hypothesis Testing

H_0: OPM of 30 sensex companies does not differ significantly.

H_1: OPM of 30 sensex companies differ significantly.

TABLE 2: ONE-WAY ANOVA FOR OPM

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1295470	5	259093.9	0.265086	0.931631	2.266062
Within Groups	1.7E+08	174	977395.1			
Total	1.71E+08	179				

b) Interpretation

Since the calculated value of P is 0.931631 which is greater than the table value ;.< of 0.005 (CV>TV at 5% significant level), the null hypothesis is accepted and the alternative hypothesis is rejected. Hence, it is concluded that the OPM of sensex companies, does not differ significantly.

NET PROFIT MARGIN (NPM)

Net Profit Margin indicates how much a company is able to earn after accounting for all the direct and indirect expenses to every rupee of revenue. The ratio is designed to focus attention on the net profit margin arising from business operations before interest and tax is deducted. The convention is to express profit after tax and interest as a percentage of sales. This ratio is calculated by using the following formula and is expressed in percentage terms.

$$NPM = \frac{\text{Net Profit}}{\text{Net Sales}} * 100$$

The Net profit Margin position is the sensex companies is depicted in table 2 and its discussed below:

TABLE 3: NET PROFIT MARGIN (NPM) OF THE SENSEX COMPANIES

SENSEX COMPANY	NPM 2012	2013	2014	2015	2016	2017	Average
TCS	28.24	26.4	28.56	26.17	26.64	25.51	26.92
Reliance Industries	6.07	5.82	5.63	6.9	11.75	12.98	8.19
Hdfc Bank	18.93	19.18	20.61	21.07	20.41	20.99	20.19
Infosys	27.1	24.79	22.99	25.71	29.24	23.3	25.52
Oil & Natural Gas Corporation	32.83	25.21	26.33	21.39	20.42	23.03	24.86
Housing Development	23.78	22.96	22.53	21.86	22.95	22.47	22.75
Coal India	1,939.37	2780.5	4775.98	3457.16	9873.45	5002.3	4638.11
State Bank Of India	10.99	11.78	7.98	8.59	6.07	5.97	8.56
ITC	24.47	24.8	26.43	26.31	26.72	25.44	25.69
Hindustan Unilever	12.16	14.7	13.8	14	12.76	14.07	13.58
Tata Motors	2.28	0.67	0.97	-13.05	0.55	-5.59	-2.36
Maruti Suzuki	4.59	5.48	6.36	7.42	7.91	10.78	7.09
Sun Pharmaceuticals	42.27	21.23	-100	-18.38	-14.09	-0.42	-11.56
Icici Bank	19.27	20.77	22.2	22.76	18.44	18.09	20.25
Larsen & Toubro	8.38	8.06	9.7	8.86	8.88	8.29	8.69
Bharti Airtel	13.77	11.23	13.22	23.78	12.51	-15.93	9.76
Axis Bank	19.28	19.05	20.29	20.73	20.06	8.26	17.94
NTPC	14.86	19.21	15.23	14.04	14.52	11.99	14.97
Asian Paints	12.03	11.7	11.22	11.39	12.63	14.25	12.20
Wipro	14.78	17	19.06	19.88	18.12	17.72	17.76
Mahindra & Mahindra	9.03	8.29	9.27	8.52	7.74	9.03	8.64
Power Grid	32.02	33.19	29.52	28.98	28.97	29.24	30.32
Bajaj Auto	15.38	15.21	16.09	13.01	16.09	17.58	15.56
Hero Moto	10.08	8.91	8.34	8.64	10.95	11.85	9.79
Lupin	14.93	17.69	25.99	24.58	25.57	24.63	22.23
Adani Ports	47.43	52.19	46.39	55.84	61.36	63.55	54.46
GAIL	9.04	8.46	7.6	5.35	4.42	7.27	7.02
Dr.Reddys Laboratories	13.53	15	19.86	16.77	13.26	14.24	15.44
Cipla	16.1	18.37	14.8	11.65	11.61	8.88	13.56
Tata Steel	19.73	13.25	15.37	15.41	12.82	7.17	13.95

As shown in table 3, among all the sensex companies, Coal India has sustained the highest. Net profit margin followed by Adani Ports which has registered a reasonably higher margin.

a) Hypothesis Testing

H_0: NPM of 30 sensex companies does not differ significantly.

H_1: NPM of 30 sensex companies differ significantly.

TABLE 4: ONE-WAY ANOVA FOR NPM

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1309022	5	261804.4	0.280623	0.923272	2.266062
Within Groups	162331351	174	932938.8			
Total	163640373	179				

b) Interpretation

Since the calculated value of P is 0.923272 which is greater than the table value of 0.005 (CV>TV at 5% significant level), the null hypothesis is accepted and the alternative hypothesis is rejected. Hence, it is concluded that the NPM of sensex companies does not differ significantly.

EARNINGS PER SHARE (EPS)

Earnings per Share are the measure of a company's ability to generate after tax profits per share held by the investors. In practice, the performance of a corporation is better judged in terms of its earnings per share. The flow of capital to the companies, under the present imperfect capital market conditions, would be made on the evaluation of EPS. Investors lacking inside and detailed information would look upon the EPS as the best base to take their investment decisions. A higher EPS means better capital productivity. This ratio is computed with the help of the following formula as expressed in rupee terms:

$$EPS = \frac{\text{Earnings after taxes and preferred Dividend}}{\text{Total number of equity shares outstanding}}$$

The Earnings per Share position of the sensex companies is summarized in Table 5 and discussed below:

TABLE 5: EPS (IN RUPEES) POSITION OF SENSEX COMPANIES EARNINGS PER SHARE (EPS)

SENSEX	EPS						Average
COMPANY	2012	2013	2014	2015	2016	2017	
TCS	55.95	65.22	94.15	98.31	116.13	120.04	91.63
Reliance Industries	61.21	64.82	68.05	70.25	84.66	96.9	74.31
Hdfc Bank	22.11	28.49	35.47	42.15	48.84	57.18	39.04
Infosys	147.51	158.76	178.4	105.9	68.73	60.16	119.91
Oil & Natural Gas Corporation	29.36	24.46	25.83	20.73	18.71	13.95	22.17
Housing Development	27.97	31.84	34.89	38.13	44.43	46.08	37.22
Coal India	12.83	15.65	23.76	21.19	25.87	23.13	20.40
State Bank Of India	184.31	210.06	156.8	17.55	12.98	13.43	99.18
ITC	7.93	9.45	11.09	12.05	12.26	8.43	10.20
Hindustan Unilever	12.46	17.56	17.88	19.95	18.87	20.75	17.91
Tata Motors	3.9	0.93	1.03	-14.72	0.68	-7.3	-2.58
Maruti Suzuki	56.6	79.19	92.13	122.9	151.33	242.97	124.17
Sun Pharmaceuticals	16.4	5	-13.7	-6.1	-4.5	-0.1	-0.5
Icici Bank	56.11	72.2	84.99	19.32	16.75	16.84	44.36
Larsen & Toubro	72.92	79.99	59.36	54.46	57.07	58.49	63.71
Bharti Airtel	15.09	13.42	16.69	33.02	18.88	-24.84	12.04
Axis Bank	102.94	119.67	132.6	31.18	34.59	15.4	72.72
NTPC	11.19	15.3	13.31	12.48	12.42	11.38	12.68
Asian Paints	99.92	109.47	12.19	13.84	16.65	18.8	45.14
Wipro	19.13	23.03	30.09	33.38	32.97	33.61	28.70
Mahindra & Mahindra	48.97	56.85	63.67	56.23	53.51	66.64	57.64
Power Grid	7.03	9.15	9.36	9.52	11.52	14.37	10.15
Bajaj Auto	103.8	105.2	112.1	97.2	126.2	132.3	112.8
Hero Moto	119.09	106.07	105.6	119.5	156.86	169.12	129.36
Lupin	18.02	28.19	51.88	53.41	64.1	69.63	47.53
Adani Ports	5.88	8.76	9.8	10.55	13.72	14.97	10.61
GAIL	28.8	31.71	34.49	23.96	18.12	20.71	26.29
Dr.Reddys Laboratories	53.83	74.54	113.7	98.6	79.42	83.05	83.85
Cipla	14	18.77	17.29	14.71	17.41	12.13	15.71
Tata Steel	67.84	50.28	64.21	64.49	48.67	33.67	54.86

This table 5 shows that the EPS of Hero Motors is substantially higher than Maruti Suzuki as per data taken from the year 2012 to year 2017. On Average, Hero Motors has generated EPS of Rs.129.36 highest than other sensex companies. The analysis reveals that Hero Motors is the most efficient company in the terms of generating Earnings per share.The EPS position of sensex companies is compared and tested using the following hypothesis.

a) Hypothesis Testing

H0: EPS of 30 sensex companies does not differ significantly.

H1: EPS of 30 sensex companies differ significantly.

TABLE 6: ONE-WAY ANOVA FOR EPS

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	3383.802	5	676.7603	0.297588	0.913723	2.266062
Within Groups	395702.2	174	2274.15			
Total	399086	179				

b) Interpretation

Since the calculate value of P is 0.913723which is more than the P value of 0.005(CV>TV at 5% significance level), the null hypothesis is accepted and the alternative hypothesis is rejected. Hence, it is concluded that the EPS of sensex companies does not differ significantly.

RETURN ON ASSETS

Return on assets measures the overall efficiency of capital invested in business. The profitability of the firm is measured by establishing relation of net profit with the total assets of the organization. It indicates what the yield is for every rupee invested in assets. This is computed using the following formula and is expressed in percentage terms.

$$\text{Return on asset} = \frac{\text{Earnings after taxes and preferred dividends}}{\text{Total Assets}} * 100$$

TABLE 7: RETURN ON ASSET (ROA) (IN %) POSITION OF SENSEX COMPANIES

SENSEX	ROA						Average
COMPANY	2012	2013	2014	2015	2016	2017	
TCS	32.03	29.72	32.07	30.53	29.46	26.35	30.02
Reliance Industries	6.78	6.59	5.98	5.71	5.98	5.74	6.13
Hdfc Bank	1.52	1.68	1.72	1.73	1.73	1.68	1.67
Infosys	23.64	21.18	19.33	19.67	21.69	17.29	20.46
Oil & Natural Gas Corporation	14.62	11.74	11.08	8.52	7.27	7.23	10.07
Housing Development	2.46	2.48	2.4	2.35	2.45	2.21	2.39
Coal India	26.26	28.77	59.93	60.42	78.34	76.78	55.08
State Bank Of India	0.87	0.9	0.6	0.63	0.44	0.38	0.63
ITC	21.27	21.8	22.39	21.73	19.88	18.81	20.98
Hindustan Unilever	24.56	32.97	29.75	31.65	28.81	30.43	29.69
Tata Motors	2.27	0.57	0.67	-9.48	0.44	-4.23	-1.62
Maruti Suzuki	7.33	8.94	9.11	11.06	11.66	14.38	10.41
Sun Pharmaceuticals	18.58	5.58	-20.4	-3.93	-3.13	-0.1	-0.57
Icici Bank	1.36	1.55	1.64	1.72	1.34	1.26	1.47
Larsen & Toubro	6.58	6.8	7.01	5.81	5.47	5.33	6.16
Bharti Airtel	7.13	5.79	6.72	10.44	4.66	-5.2	4.92
Axis Bank	1.48	1.52	1.62	1.59	1.56	0.61	1.39
NTPC	6.54	7.83	6.11	5.22	4.77	3.96	5.73
Asian Paints	19.24	18.58	17.49	18.25	19.09	17.65	18.38
Wipro	12.13	13.88	16.15	15.34	13.68	12.92	14.01
Mahindra & Mahindra	12.03	12.21	12.01	10.08	8.69	10.05	10.84
Power Grid	3.6	3.81	3.22	3.14	3.37	3.86	3.5
Bajaj Auto	27.1	24.39	21.99	18.08	23.3	18.38	22.20
Hero Moto	24.04	21.96	20.88	22.67	25.38	22.98	22.98
Lupin	13.06	17.88	26.41	21.77	20.29	17.6	19.50
Adani Ports	8.93	9.6	9.64	8.45	8.99	7.9	8.91
GAIL	9.34	9	8.78	5.74	4.33	6.22	7.23
Dr.Reddys Laboratories	8.82	10.55	13.32	10.2	7.71	8.41	9.83
Cipla	12.49	13.11	10.74	7.77	8.72	6.24	9.84
Tata Steel	6.96	4.96	5.77	5.56	3.97	3.09	5.05

As per the data taken from year 2012 to 2017, Coal India has achieved the highest yield of 55.08333%. The data reveals that TATA Motors registered the lowest ROA of -1.62667%. On the six years average, Coal India has sustained he higher ROA followed by TCS which has registered a reasonably higher yield. Thus, Coal India is the most efficient company ingenerating yield over assets and hence their overall efficiency is better than other Sensex companies. The ROA positions of sample companies are compared and tested by using the following Hypothesis.

a) Hypothesis Testing

Ho: ROA of 30 sensex companies does not differ significantly.

H1: ROA of 30 sensex companies, differ significantly.

TABLE 8: ONE-WAY ANOVA FOR ROA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	21.26547	5	4.253094	0.025285	0.999705	2.266062
Within Groups	29267.32	174	168.203			
Total	29288.59	179				

b) Interpretation

Since the calculated value of P value is 0.999705 which is more than the table value of 0.05 (CV>TV at 5% significance level), the null hypothesis is accepted and the alternative hypothesis is rejected. Hence, it is concluded that the ROA of sensex companies does not differ significantly.

RETURN ON NETWORTH EXPENSES (RONW)

Return on net worth expresses the net profit in terms of the equity shareholders' funds.

This ratio is an important yardstick of the performance of equity shareholders since it indicates the return on the funds employed by them. The factor which motivates shareholders to invest in a company is the expectation of an adequate rate of return on their funds and periodically, they will want to assess the rate of return earned in order to decide whether to continue with their investment. This ratio is useful in measuring the rate of return as a percentage of the book value of shareholders equity. It is computed with the help of the following formula and expressed in percentage:

$$\text{Return on Net Worth} = \frac{\text{Net Profit After Interest and Tax}}{\text{Net Worth}} * 100$$

Where, Net Worth= Equity capital + Reserves and surplus

The Return on Net Worth position of the sample companies is depicted in Table 11 and is discussed below:

TABLE 9: RETURN ON NET WORTH (RONW) (IN %) POSITION OF SENSEX COMPANIES

Sensex	RONW						Average
COMPANY	2012	2013	2014	2015	2016	2017	
TCS	44.33	39.38	41.93	42.4	38.87	30.31	39.53
Reliance Industries	12.29	11.73	11.15	10.51	11.41	10.89	11.33
Hdfc Bank	17.26	18.57	19.5	16.47	16.91	16.26	17.49
Infosys	28.46	25.28	24.21	25.3	27.61	20.31	25.19
Oil & Natural Gas Corporation	22.24	16.81	16.16	12.26	10.53	9.64	14.60
Housing Development	21.6	19.52	19.46	19.34	20.78	18.77	19.91
Coal India	41.22	47.73	91.26	79.97	105.21	104.17	78.26
State Bank Of India	13.94	14.26	9.2	10.2	6.89	6.69	10.19
ITC	32.88	33.36	33.51	31.31	29.94	22.49	30.58
Hindustan Unilever	76.62	142.01	118	115.9	110.73	69.18	105.40
Tata Motors	6.33	1.57	1.74	-31.93	1.04	-11.91	-5.52
Maruti Suzuki	10.76	12.87	13.26	15.65	16.92	20.28	14.95
Sun Pharmaceuticals	21.54	6.63	-38.2	-6.48	-4.99	-0.16	-3.60
Icici Bank	10.7	12.48	13.39	13.89	11.19	10.11	11.96
Larsen & Toubro	17.68	16.86	16.32	13.63	13.04	11.85	14.89
Bharti Airtel	11.59	9.41	9.89	16.86	8.93	-9.8	7.81
Axis Bank	18.59	15.64	16.26	16.46	15.46	6.59	14.83
NTPC	12.58	15.69	12.78	12.6	11.53	9.75	12.48
Asian Paints	38.52	34.74	32.46	31.37	32.18	25.94	32.53
Wipro	19.23	23.31	25.16	23.66	19.79	17.47	21.43
Mahindra & Mahindra	24.08	22.88	22.39	17.25	14.59	15.4	19.43
Power Grid	13.85	16.13	13.05	13.04	14.1	15.09	14.21
Bajaj Auto	49.72	38.51	33.75	26.31	29.71	22.46	33.41
Hero Moto	55.43	42.31	37.66	36.47	39.42	33.39	40.78
Lupin	21.53	26	33.3	26.55	24.88	21.25	25.58
Adani Ports	22.55	26.17	21.6	19.49	20.85	18.38	21.50
GAIL	16.89	16.6	16.16	10.43	7.51	9.18	12.79
Dr.Reddys Laboratories	13.58	16.25	20.71	15.79	11.67	11.93	14.98
Cipla	14.9	17	13.76	10.65	11.33	7.61	12.54
Tata Steel	12.72	9.17	10.48	9.65	6.95	6.93	9.31

Among all the 30 companies, Hindustan unilever has made the highest RONW of 105.4083% followed by Coal India (78.26 %), which has registered a reasonably yield. The RONW position of sample companies are compared and tested using the following hypothesis:

a) Hypothesis Testing

Ho: RONW of 30 sensex companies,does not differ significantly.

H1: RONW of 30 sensex companies, differ significantly.

TABLE 10: ONE-WAY ANOVA FOR RONW SOURCE

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	833.1175	5	166.6235	0.304171	0.909904	2.266062
Within Groups	95316.37	174	547.7953			
Total	96149.49	179				

b) Interpretation

Since the calculated value of P value is 0.909904 which is more than the table value of 0.05(CV>TV at 5% significance level), the null hypothesis is accepted and the alternative hypothesis is rejected. Hence, it is concluded that the RONW of sensex companies does not differ significantly.

FINDINGS

- Coal India is highly successful in controlling the expenses by registering the six years (2012 -2017) Operating Profit Margin of 4796.90. It is found that Coal India is the most efficient company in controlling costs and expenses when compared to other Sensex companies.
- Coal India has sustained the highest Net profit margin (NPM) of 4638.11. Thus it is found that Coal India is the most efficient company when compare other Sensex Companies.
- The Earning per Share of Hero Motors is substantially higher than other Sensex Companies for which the data taken from 2012-2017, Hero Motors has generated EPS of 129.36, making Hero Motors is one of the efficient company's in terms of generating earnings.
- Coal India has achieved the highest ROA 55.08 and it is most efficient company in generating yield over assets and hence their overall efficiency is better than that of other Sensex Companies.
- Hindustan Unilever has sustained highest Return on Networth (RONW) of 105.40. Thus it is found that Hindustan Unilever is the most efficient company when compare to other Sensex Companies.

CONCLUSION

There are still challenges in the current economic environment like inflation, interest burden and pressure on margins etc. The role of Sensex companies in the economic development of a country is very important. It is said that a country is a developing country when it has industrial development and its share in the country's national output is very meager. The industrial development is necessary to develop the other sectors of an economy since they are mutually interrelated with one another. As far as developing countries like India is concerned, there is greater opportunity of raising capital resources after liberalization and reforms in capital market especially encouraging of foreign investment. But, there exists the greater degree of risk associated with this investment that there is scope for big gain or big loss. The present study analyzed the fundamentals of Sensex companies for last six years. Here we analyze the operating profit margin, net profit margin, earning per share, return on assets and return on net worth of these companies. The result of the analysis shows that especially in between 2012 to 2014 results are encouraging, after 2014 the political stability is encouraging the Sensex. In 2017 the ratio results are negative because of demonetization. From this analysis there has been ups and downs in the stability of returns on the share and stocks. But in the long term the results are encouraging. The present study concludes that the volatility and seasonality of market return and stock return of Sensex companies are not the same in all the days of a week, in all the months of the year. This is due to the changes in the socio, economic and political factors within the country and outside the country.

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