

# SEMCOM

## Management & Technology Review

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SEMCOM, Vallabh Vidyanagar, Gujarat, India

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## Editorial

Greetings to all !!

Once again I am glad to present before you this issue of SEMCOM Management and Technology Review. It is worth appreciating to receive these many original research papers for publication. Let me remind you that SEMCOM scrutinize papers critically while reviewing including plagiarism check through software. Make sure that you cite the references carefully.

This issue brings you the research deliberations in the areas of Finance, Marketing, Banking, HR, Economics and E- Commerce.

Article on Amendments to Finance bill 2017 highlights major challenges faced by Indian economy and there by deliberating on changes proposed in the original bill. It is followed by an article on GST Highlights which discusses tax reforms, basics of GST bill with diagrammatic explanation of GST framework for the understanding of a common man. A case study on working capital management of Adani Power is a study analyzing working capital management and its impact on profitability as it is a crucial for the survival of any business. An exclusive study with a focus on financial information of automobile industries help stakeholders to know the position and performance of the companies. There is also one more study on an impact of financial restructuring on profitability and liquidity which determines the significant changes in a company after financial restructuring.

Post demonetization period has aroused lot of curiosity among researchers to study the trend and consequences. In fact, this phase has lot of research potentials. There are two papers in this issue - one suggests the need of accounting standards in different sectors to catch corporate scandals and avoid individual frauds and another one is on impact of demonetization on agriculture sector – like sale of fertilizers etc.

Conceptual explanation on Antecedents of post-purchase 'cognitive Dissonance' deals with buyers' psychology which has a relevance with consumer behavior and designing of marketing strategies. Green banking practice by selected banks shows social and environmental impact to promote and preserve environment with special references to effectiveness of green banking strategies, products and services. Customer satisfaction in postal services also evaluates customer awareness and usage of postal services when Indian postal services hears the tolls of the bell. Vendor managed inventory in public procurement environment is another study on government services. It is a case study that evaluates the best practices of successfully managed supply chain management at private organizations in relation to Indian Railway to minimize inventory cost. Whether government schemes are reaching to end user is a genuine concern. A study on impact of MGNREGS in improving employability in selected districts of state deals with this concern and highlights its effectiveness in rural employability. Another study is on measuring and analyzing the abnormal returns of FMCG companies through evaluation of a performance of companies in a given period. A study conducted on retail sector on how to mitigate HR challenges by developing certain strategies is a need of an hour in enhancing people's work conditions.

How can we study businesses today without its relation with e-commerce platform? E- Business is permeating in ether these days affecting every function of a business. The issue presents a comparative study on Amazon and Flipkart in terms of their performance in E-Commerce domain.

I hope you will enjoy reading this issue. Best wishes to all researchers. Keep Writing. ...

Nikhil Zaveri



## About SEMCOM

Sardar Gunj Mercantile Cooperative Bank Ltd. (Anand) English Medium College of Commerce and Management (S G M English Medium College of Commerce and Management) popularly known as SEMCOM was established in the year 1997 with the aim/vision to impart quality education to students who desire to graduate in commerce, management and IT. The college has successfully completed

18 years. Its alumni has established themselves in various walks of life across the globe. The college has been established by Charutar Vidya Mandal (CVM), an educational trust with a vision to regenerate society through education. SEMCOM was set up with the generous donation of Rs. 35 lakhs against the total project cost of Rs. 150 lakhs by Sardar Gunj Cooperative Bank Ltd. (Anand) on self- finance basis keeping in mind the changing policy of the government in inviting private institutions to supplement the government's efforts in higher education. The college has an ISO Quality System since 2004, which upgraded to 9001:2008 in September 2009. The college is re-accredited grade "A" by NAAC with a CGPA of 3.01 on 4 point scale. The college, within a short span of time has made its presence felt in India and abroad.

*The college is affiliated to Sardar Patel University, Vallabh Vidyanagar.*

### Objectives / Goals

- ◆ To focus on integral development of students.
- ◆ To offer courses and programs in tune with changing trends in the society as a whole.
- ◆ To update the curriculum as per the need of the business and industry.
- ◆ To create unique identity in the educational world at the national as well as international level.
- ◆ To institutionalize quality in imparting education.
- ◆ To incorporate innovations on a continuous basis in the entire process of education at institutional level.
- ◆ To create platform for the students for exhibiting their talent and for development of their potentials.
- ◆ To generate stimulating learning environment for students as well as teachers.
- ◆ To build cutting edge amongst the students to withstand and grow in the competitive environment at the global level





# Amendments to Finance Bill 2017

## Dr. Shirish Kulkarni

Budget presented on 1<sup>st</sup> February 2017 for the first time since independence is a historical event. Budget was presented in the evening at 5 o'clock till the year 2000 then practice was to present it at 10.00 am in the morning on 28<sup>th</sup> February. First time this year it is presented on 1<sup>st</sup> February 2017.

Budget is a Finance Bill which Finance Minister presents on the floor of Parliament which is passed by Parliament of both the houses, subsequently assented by President of India becomes Finance Act.

While presenting the union budget, 2017-18, the Finance minister said **Indian economy is facing following five major challenges:**

1. Agriculture income under stress
2. Weak private sector investment in infrastructure
3. Resource crunch
4. Decline in manufacturing
5. Maintaining fiscal discipline

Government wants to make the tax rates more reasonable, fair tax administration and expand the tax base. The tax proposals of this budget are aimed at stimulating growth, providing relief to middle classes, affordable housing, checking black money, promoting digital economy and transparency of digital funding and simplification of tax administration.

Finance Bill, 2017 has been already passed by *Loksabha* on 31<sup>st</sup> March 2017 with some changes proposed in original bill.

### 1. Limiting cash payments

In order to reduce generation and circulation of domestic black money, Finance bill 2017 originally proposed to impose a prohibition on receipt of cash exceeding Rs. 3,00,000 and above. Any contravention would impose penalty equal to the amount of cash received. However, there should be no penalty if there is good and sufficient reasons for such contravention.

**This provision has been amended for amount of cash from Rs. 3,00,000 reduced to Rs. 2,00,000.**

### 2. TCS on cash transactions Scrapped

The existing provision to collect 1% TCS on cash sales of jewelry exceeding Rs 5,00,000 has been proposed to be omitted. Impact of it would be that TCS liability would attract on any cash transaction

for goods or services above Rs 2,00,000.

As cash transaction threshold limit has been reduced to Rs 2,00,000, there would be no liability to collect TCS from buyer on such payment. Any cash receipt exceeding Rs 2,00,000 is already levied the penalty.

### 3. Aadhar Mandatory

Every person who is eligible to obtain Aadhar number is required to quote in i) PAN application form and ii) Filing of Income Return. Person can quote the enrolment ID of Aadhar application form in case he/she does not possess the Aadhar Number.

Every person allotted PAN shall intimate his Aadhar Number to the authority which will be notified by the Central Government. Else PAN allotted shall be deemed to be invalid. It will reduce the instances of issuing multiple PAN to single individual. Quoting Aadhar would restrict granting of subsidies to only those who are eligible to claim.

### 4. Political Party donations

As per Companies Act, 2013 companies can donate only up to 7.5% of average profits. This limit has been removed. Now companies can donate huge amount i.e. more than 7.5% of average profits to political parties.

New provision that has been proposed mandates donation to political parties with account – payee cheques or bank draft or through electronic mode. Cash donations shall not exceed Rs 2,000. Provision has been made for funding of political donations through any notified instrument. Government would get powers to notify electoral bonds for funding of political parties.

As finance bill passed, Government is allowed to draw for expense. Earlier it was not possible before the month of July of the particular year. Somehow this year the budget was incomplete due to introduction of GST.

### Author's Profile

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## GST Highlights

### Kejal Pandya

The herculean task of implementation of the biggest tax reform in Indian history post independence, the much awaited Goods and Service Tax, i.e. GST is on its way to be a reality. Here are some latest updates about GST. But before that, let's also understand the very basics of the upcoming law.

#### Basics of GST:

- GST would be levied on 'supply' of goods and services and hence the present prevalent concepts of levy of excise on manufacture, VAT/CST on sales, entry tax on entry of goods in local area would no longer be relevant.
- Present Central Taxes like Central Excise, Service Tax, CVD (Countervailing Duties), SAD (Special Additional Duty), CST and State Taxes like VAT, CST, Entry Tax, and Luxury Tax would get subsumed under GST. Customs is outside GST and hence Basic Customs Duty would continue on imports.
- GST is a destination based consumption tax, which essentially implies that the revenue will accrue to the State where the consumer resides.
- Centre would levy Central GST (CGST)

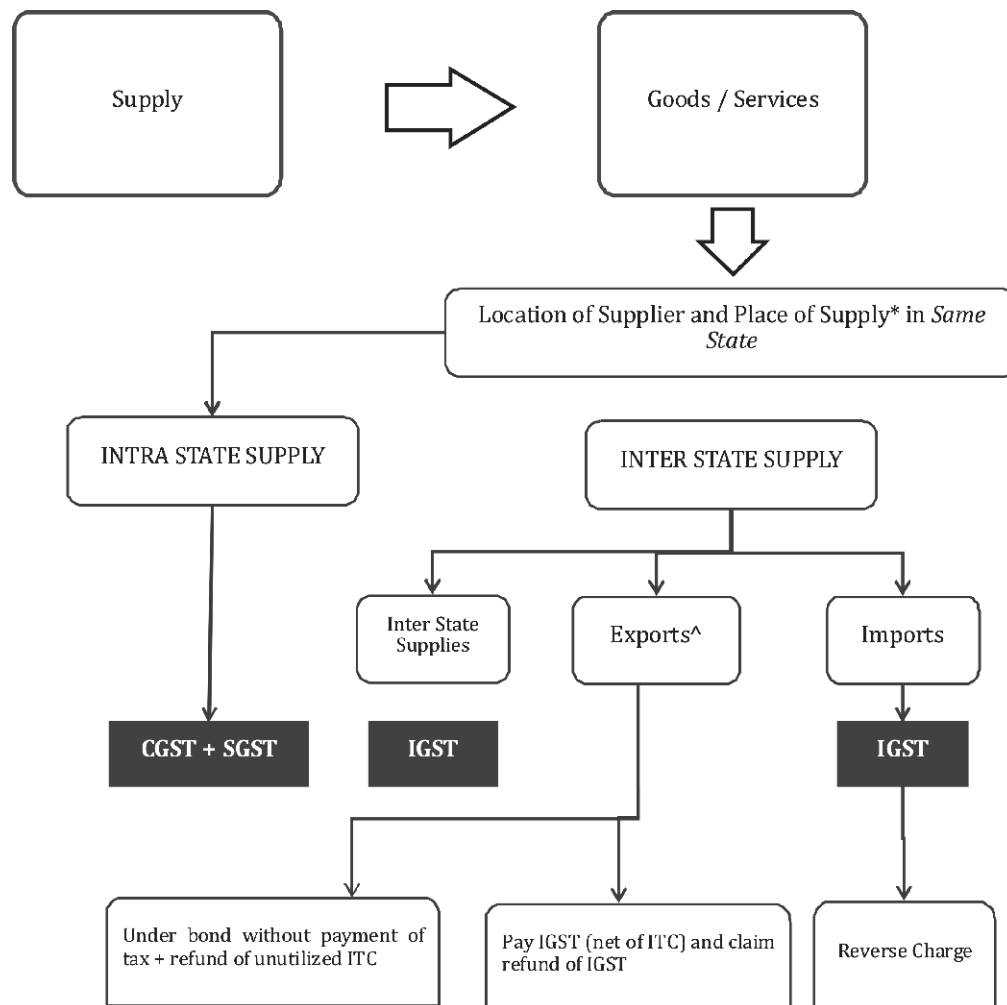
and States would levy State GST (SGST) on every supply of goods and services within a State. Integrated GST (IGST) would be levied on all inter-state supplies by the Centre and then transferred to the Destination State

- Seamless flow of credit would be available under GST whereby CGST would be allowed to be set-off against CGST and IGST, SGST against SGST and IGST and IGST against IGST, CGST and SGST in that order.
- Enrolment summary: Please refer the table given below.

Note: For VAT, norms of enrolment in GST are state wise, i.e. in Gujarat it has been enrolled from 15<sup>th</sup> of Nov'16. Till now 86.15% of Gujarat people have enrolled for GST.

- TDS, which as of now, is only used for Income tax, is also introduced in GST
- With the end goal of uniform GST and to manufacture accord between the center and the states on matters identifying with GST, the GST Council has been set up under the Constitution.

	Start Date
Enrolment of Taxpayers who are registered under Central Excise Act but not registered under State VAT	07-01-2017
Enrolment of Taxpayers who are registered under Service Tax Act but not registered under State VAT	25-01-2017
New registration under VAT/Service Tax/Central Excise after January 2016	01-02-2017

**GST Framework:****Latest Updates on GST:**

- While exhibiting the Union Budget 2017-18 in the *Lok Sabha*, Finance Minister (FM) Mr. Arun Jaitley said the government is ready for implementation of the Goods and Services Tax (GST) and will start reaching out to the industry very shortly by April 1 to spread awareness about the GST regime. However, he did not mention the exact date of the GST implementation across the country.
- The earlier deadline for the GST rollout was April 1, but the FM had hinted that July 1, 2017, could be the best time for the implementation. Notably, the GST Council resolved all its pending issues on January 16 at the 9th meeting.
- In a written statement, banks have urged the government to amend the draft GST law indicating 'self-supply' of services. In the present structure, transactions between two branches of the same bank will involve a tax, which could become a mess on a later stage after the GST rollout. The banks believe that the tax will become a mess because the transactions are carried out in large numbers and it will not be possible for the financial institutions and banks to value the services and eventually pay GST on those services.
- Revenue Secretary Mr. Hasmukh Adhia suggested the proposed Goods and Services Tax (GST) as a merger to subsume all cesses except those on

petroleum.

- The Goods and services tax will benefit the warehousing sector with ongoing taxation issues in logistics and transportation expected to be sorted out.
- The CBEC (Central Board of Excise and Customs) officials had recently raised their concern about the job losses due to the change of the nature of the jobs, to which the FM has assured them of creation of new jobs under GST.
- After multiple rounds of debates on dual control the States would have sole jurisdiction over assessee having a turnover of Rs.1.5 crore or less, while the administrative control of businesses with a turnover exceeding that limit would be jointly with the Central and State

governments. This is a new area to be handled as in existing law system control is very clearly divided between the Central Government and State Governments in light of VAT being local tax and service tax and excise being central taxes.

- The states had demanded for dual control or cross empowerment to split the administrative, auditing and assessing powers between Centre and states under GST, which promises to stitch together a common national market by consolidating the web of local and central taxes into a single levy.
- GST is being anticipated as “one nation, one tax”. However, with 31 GST legislations, 29 VAT legislations and a union enactment on Central Excise, this is certainly long ways from the target.

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#### Author's Profile

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# Antecedents of Post-Purchase Cognitive Dissonance: A Review of Literature

Milind Parekh, Raju Rathod

## Abstract

Cognitive Dissonance, though a terminology from psychology, but has a great relevance with marketing and that too specifically with consumer behaviour. The term 'Cognitive dissonance' was first coined by Leon Festinger in 1957 in his book 'The Theory of Cognitive Dissonance'. The theory has much wider implication in consumer decision making both in pre-purchase as well as post-purchase situations. In this paper, authors have tried to put a conceptual explanation with the help of previous literature regarding what cognitive dissonance is, how it impacts consumer behaviour, what are various antecedents of cognitive dissonance and some marketing implications has been presented hereunder.

## Introduction

**Leon Festinger (1957)** defines **cognitive dissonance** as the feeling of discomfort when simultaneously holding two or more conflicting cognitions: ideas, beliefs, values or emotional reactions. In a state of dissonance, people may sometimes feel "disequilibrium": frustration, hunger, dread, guilt, anger, embarrassment, anxiety, etc. The theory of cognitive dissonance in social psychology proposes that people have a motivational drive to reduce dissonance by altering existing cognitions, adding new ones to create a consistent belief system, or alternatively by reducing the importance of any one of the dissonant elements. **Philip Kotler (1998)** describes in his book of Marketing Management that when the customer is highly involved in purchasing a product and sees very few differences between brands at that time a mental imbalance arises, called as Cognitive Dissonance. Involvement becomes high because of so many factors like product is costly and such that is not purchased frequently but purchased after very long time interval, product may be risky etc. In such situation after taking a decision or before taking a decision customer will try to reduce this dissonance.

## Review of Literature

It is very essential for marketer to understand pre purchase and post purchase behaviour of consumer. One of the very important aspects of pre and post purchase consumer behaviour is Consumer Dissonance. Today, there are number of options available and accessible for consumers to fulfil their need. There is acute communication clutter faced by marketers as number of players has been increasing in each product categories. Entire market environment become hyper dynamic so there would be considerable post purchase dissonance also faced by consumers. Rapid change in technology results in delay in consumer decision-making, consumer dissonance is different among the various demographic group of consumer.

Leon Festinger pioneered who conducted studies on why people act in certain manner that doesn't seem perfectly logical and their rationalization behind that type of behavior or action. He formally introduced theory of cognitive dissonance. Any bit of knowledge a person has about self or environment is a "cognition" or "cognitive element." This can be a known fact or an indistinct concept, and even in between. If two of these elements agree with each other the relationship between the two is "consonant". Alternatively when facts become twisted into half-truths, colliding with common sense it is known as Cognitive dissonance. Cognitive dissonance leads to a state of confusion. Cognitive dissonance is one of the major challenges for marketer as sometimes it lead customer to postpone or delay the buying decision. In market every week new products with new features, promotion schemes, and attractive price are launched that confuse consumer. *Cognitive dissonance has been definitively shown to alter*

*beliefs or perceptions of an individual.* There is a psychological need to have consistency and stability in our thoughts when some new information comes and disturbs our previous beliefs and assumptions we feel uncomfortable. To remove this instability or state of discomfort people resort to information gathering and try to rationalize the beliefs and assumptions to be true.

#### ***Who feel Dissonant?***

(D Ehrlichet *al.*, 1957) found in their research that recent automobile buyers read car advertisements that supported their choices and avoided reading those that contradicted their decisions significantly more often than non-purchasers. They concluded that automobile purchasers who have recently bought new cars experienced cognitive dissonance and attempted to reduce the resultant anxiety by selectively exposing themselves to supporting advertisements. (Aggarwal, Kim & Cha, 2013) conducted a cross-cultural study between Easterners and Westerners. With 102 students from a major Korean university and 96 students from a major Canadian university were the participants of the study. The experiment was about reading fictitious but realistic product reviews about a new car model and responding to survey questions. The authors found that compared to Eastern consumers, western consumers are affected more by preference inconsistent information and hence they are having high tendency to reduce this dissonance as compared to easterners. The Westerners experience a greater level of cognitive discomfort and they show a stronger motivation to reduce that discomfort, and attempt to resolve the conflict between their original preference and inconsistent information. These factors lead to a significant reduction in their purchase intentions. They found that level of cognitive discomfort was the result of cultural differences.

#### ***Personality Variables affecting dissonance***

(Bell G.D., 1967) conducted a study & tried to investigate the relationship of quality of service, level of persuasion and personality of the buyer (self-confidence) with that of the level of dissonance. Researcher here suggests that those who are most easily persuaded will be highly dissonant after the purchase but provided that they control the variable called 'self-confidence' as

persuasion is the function of self-confidence as per the researcher. Customers who are *high on self-confidence*, were high on dissonance if they were easily persuaded in buying their new cars. On the other hand those who are *high on self-confidence* had very little dissonance if they were not easily persuaded. They made their decisions, accepted them, and were happy. Those who were *low on self-confidence* had little dissonance if they were easily persuaded. They were convinced by the salesmen that they had made very good deals, and their confidence was bolstered by the salesmen's persuasion attempts. On the other hand, those with little confidence were highly dissonant if they resisted influence attempts of salesmen and were not easily persuaded. Perhaps their self-doubts began to influence their attitudes after they completed their purchases. They wondered whether or not they had made the proper deals much more than did those low on self-confidence who had been persuaded. They had not been convinced by the salesmen that they had made wise choices and therefore were uneasy about their decisions. Further researcher found that, the better the quality of service, the lower would be the buyers' dissonance.

#### ***Antecedents of Cognitive Dissonance***

(Holloway R.J., 1967) tried to describe a consumer decision experiment which involved four dissonance producing factors simultaneously. The author is interested in showing 'what causes dissonance'; and thereby he gives many antecedents factors which may cause dissonance. He did his experiment with four dissonance producing factors: Inducement to buy, anticipated dissonance, information and cognitive overlap. He gave some interesting findings through his research as follows:

1. Consumers who buy when they have strong inducement should experience less dissonance than those who buy without inducement.
2. Consumers who obtain adequate information probably will have less dissonance than those who buy without sufficient information.
3. Product alternatives with very similar attributes may cause greater consumer dissonance than dissimilar alternatives.
4. Interaction effects occur when various dissonance-arousing factors are combined in one

buying situation.

(Sadaomi Oshikawa, October 1969) has related the cognitive dissonance theory with consumer behaviour by describing that dissonance can be aroused in 3 different ways. (1) After making an important and difficult purchasing decision. (2) By Forced Compliance i.e. purchasing the inferior product even after having knowledge of he/she is rejecting superior product because of forced volition to buy that product. (3) After being exposed to discrepant information i.e. when an individual is buying a product after carefully analysing the all the features associated with it, and after purchasing if he/she comes to know that the choice which he has made is not proper after getting new information after the purchase. (Sheth J.N., 1970) agree with the Festinger's view that there should be greater post-decision dissonance reduction in the high-conflict situation than in the low-conflict situation. Researcher concludes that toothpaste is a personal care item and, as such, a high risk product for all consumers. Personal care products generally tend to be perceived as high-risk items; the consumer is more involved than in the case of other frequently purchased products such as grocery items, suggesting that toothpaste may be an important product for both the groups, although it may be more important to the housewife than to the student. Secondly, the student population consisted of graduate students, some of whom may be married and have their own households. This would tend to bring the involvement aspect for each group into parity. (Korgaonkar P.K. & Moschis G.P., 1982) did an experimental study that investigated the effects of cognitive dissonance, expectations, and product performance on product evaluations. The results suggest that product involvement acts as a moderator in the post-decisional product evaluation process. (Mao & Oppewal, 2010) studied the impact of post purchase reinforcements and choice-inconsistent information on cognitive dissonance. They conducted a field experiment where university students were provided with university rankings related information which was either consistent with their choice or otherwise. They found that choice inconsistent information did not affect satisfaction or quality but rather they arouse dissonance. (Young "Sally" Kim, 2011)'s study findings suggest that the theory of cognitive

dissonance can be extended beyond a post decision situation to a service context to explain how customers process information facing a WOM message that is inconsistent with their existing belief? It is shown that cognitive dissonance is a predominant predictor of re-patronage behaviour (accounting for 65% of the explained variance in repurchase intentions) even for satisfied customers. This means that the psychological state of being cognitively dissonant drives consumers to modify their behaviour (i.e., lower repurchase intentions) as a strategy to remove or reduce cognitive dissonance. The predicting power of cognitive dissonance in repurchase intentions is stronger than trust and value combined. This interesting finding, which highlights the important role of cognitive dissonance in information processing and re-patronage behaviour, is consistent with the premise of the cognitive dissonance theory that two non-fitting cognitions lead to the uncomfortable state of cognitive dissonance and people seek a way to reduce this condition. The study found that customers' tendency to rely on WOM is positively related to cognitive dissonance. This means that negative WOM will have a serious effect even on satisfied customers when they tend to rely on WOM. Customers tend to seek and depend on WOM especially when the services are perceived as risky to purchase and consume, such as services high in credential quality (e.g., hotel service, child care service, health care service). Therefore, organizations—particularly those offering services high in credential quality—should monitor WOM activities very carefully. WOM activities are not limited to off-line situations; they include online situations where customers freely post their opinions and comments at their convenience. It will be wise for organizations to have dedicated staff to monitor and manage information about the company that is available to prospective as well as current customers. Another finding is that product involvement is significantly related with cognitive dissonance. In other words, customers will be more likely to experience cognitive dissonance when they are highly involved in the product or service purchase. For example, if a customer's purchase decision is made upon completing a serious information search about the chosen service provider and its competitors, negative WOM that is



inconsistent with their current belief will lead to a higher level of cognitive dissonance. In other words, customers who are highly involved will be more sensitive to negative WOM than those who are not. This suggests that organizations may want to treat customers differently based on their level of involvement (e.g., customers spending a night at the hotel for an important event versus customers spending a night to redeem their free gift certificates). For example, communication strategies may be tailored more carefully toward customers whose product involvement level is high. A study was undertaken to investigate what type of dissonance persists more or less results were surprising. **(Koller & Salzberger, 2012)** tried to investigate whether cognitive dissonance affects loyalty and satisfaction even for lower priced product or services. According to them high level dissonance decrease as and when time moves but smaller level dissonance stays for longer or they may increase too. This happens because in low price settings, a customer don't make much efforts to reduce dissonance as intensity of the dissonance is low and as a result it persist and may grow over a period of time. They find inverse relationship between level of dissonance and level of satisfaction & loyalty. Whereas giving post purchase reinforcement did affect satisfaction in positive ways.

#### ***Dissonance Reduction***

**(D Ehrlich et al., 1957)** found in their research that automobile purchasers who have recently bought new cars experienced cognitive dissonance and attempted to reduce the resultant anxiety by selectively exposing themselves to supporting advertisements. **(Shelby D. Hunt, 1970)** compared with the control group; the subjects who received the post-transaction letter experienced less dissonance, had more favourable attitudes toward the store, and had higher intentions of future purchases. It would appear that at least some types of post-transaction reassurance would be effective. Unfortunately, when compared with the control group, the subjects who received the post-transaction telephone call experienced more dissonance, had less favourable attitudes toward the store, and had lower intentions of future purchases. This post-transaction message appeared to be not

only ineffective, but also actually counter-productive. The message actually aggravated the situation. Neither theory nor the other findings of the study explain why the results of the telephone group were contrary to expectations. The author offers the following possibilities contributing to this finding.

- The subjects who received the telephone call may have suspected some ulterior motive for its purpose.
- The telephone call may have interrupted some of the subjects at inopportune times.

Some of the subjects may have been annoyed by firms that sell over the telephone, and therefore interpreted the telephone call as a sales device. **(Young "Sally" Kim, 2011)**'s study results show that both relationship variables (trust and perceived value) have a negative direct impact on cognitive dissonance. This means that organizations who have established a solid relationship with their customers can weather a scandal better than those who have not because customers' trust and value perceptions tend to reduce the dissonance they get from being exposed to negative WOM.

#### ***Consequences of Dissonance***

**(Donnelly J.H. & Ivancevich J.M., 1970)** presented the relationship between cognitive dissonance among consumers and their back out behaviour. He disagreed with previous researchers and he presented some indication of cognitive dissonance among the purchasers and their back out behaviour rather than just assuming that all the consumers are dissonant. Researcher puts very valid argument over here saying that a buyer could, of course, be dissonant and not back out, but it seems reasonable to assume that those buyers who do back out, experience sufficient post-purchase dissonance to do so. In short researcher here established relationship between cognitive dissonance and back out behaviour and he also adds that there has significant impact of positive reinforcement on dissonance reduction. **(Maity D. & Arnold T.J, 2013)** performed a conceptual study that investigates the role of post purchase dissonance in generating potent upward counterfactuals (the process of looking back at events and thinking about how things could have turned out differently).

Further, researcher also adds that upward counterfactuals also elicit negative word of mouth toward the firm when there are no chances of returning the product.

### ***Dissonance vs. Anxiety***

(Sadaomi Oshikawa, 1972) critically evaluated the study of Bell. He points out that Bell has not measured the reported dissonance but rather he has measured Chronic Anxiety. Because the questions which were asked in Bell's study do not measure cognitive dissonance but they measure anxiety. Oshikawa tried to measure the cognitive dissonance by asking the questions in 5 different categories and he tried to identify the relationship among them. 5 categories in Oshikawa's studies were; Correctness of Decisions, Reported Dissonance, Lack of persuasibility, Quality of Service and Self Confidence. He finds that, persuasibility has no relationship with dissonance. He further finds that customers, who are highly dissonant, are less satisfied with the quality of the service. Those customers who are low on dissonant are very satisfied with the purchase decision they made. (Hawkins D. I., 1972)'s findings says that people who say they generally worry after making a decision tend to score higher on a measure of chronic or trait anxiety than do individuals who report a lower degree of worrying, suggests that dissonance may be a specific form of anxiety. Furthermore, it suggests that people will vary in the frequency with which they will experience dissonance after decision making. However, it must be pointed out that felt anxiety, and presumably dissonance, is a situational phenomenon. Thus, while some may be more prone to experience dissonance than others, whether or not an individual will experience dissonance in a given situation depends upon the interaction between that individual and a specific situation. There is an obvious need for additional research into the relationship between anxiety and dissonance. Specifically, is dissonance a specific form of state (temporary) anxiety? Do individuals vary in their tendency to experience dissonance?

### ***Applicability of Cognitive Dissonance***

A study was undertaken to investigate the applicability of cognitive dissonance by (Koller & Salzberger, 2007) and they had tried to study the

applicability of cognitive dissonance in decision making process. The objective of the study was to investigate whether the cognitive dissonance has meaningful applicability with the stages of decision making process i.e. pre-purchase stage & post purchase stage. Data were collected prior to the decision, after the decision and during the holiday & after the holiday in longitudinal design. And they came up with a conclusion that cognitive dissonance prevails not only after the decision has been taken but before decision also.

### ***Discussion***

From the above literature source, it can be learned that cognitive dissonance is a very serious psychological conflict that arises in the minds of consumers before and after the purchase which may adversely affect their decisions. Authors find here that there are many antecedents of cognitive dissonance and very severe consequences of such dissonance if it persists for longer period of time. As far as antecedents of Cognitive dissonance are concerned, list is bit longer. Cognitive dissonance may arise to recent purchasers, consumers with high self-confidence with easy persuasion, poor service quality, strong inducement to buy, high anticipated dissonance, less information gathered about the product, product with very similar attributes, after making an important decision, forced compliance, after receiving discrepant information, in high risk products, high involvement of customers in purchasing products, choice inconsistent information, tendency to rely heavily on word of mouth and list may go longer. As far as consequences are concerned; back out behaviour, negative word of mouth, anxiety on the part of consumer, negative impact on repatronage behaviour, potent upward counterfactuals, perceived risk etc. are the most adverse impact that cognitive dissonance can create.

### ***Marketing Implications***

So here we present some of the marketing implications that may prove to be useful in dealing with cognitive dissonance.

- A strong relationship with customer is required (by any electronic or traditional media) to deal with cognitive dissonance if it may at all arise.

- Post sale communication should be such which instil one kind of feeling within the minds of consumer that they have made a right choice.
- Monitoring and managing word of mouth communication
- Service recovery may be useful up to a certain extent in reducing the dissonance.
- Managing perception of the consumers so that we can reduce the perceived risk if customers.

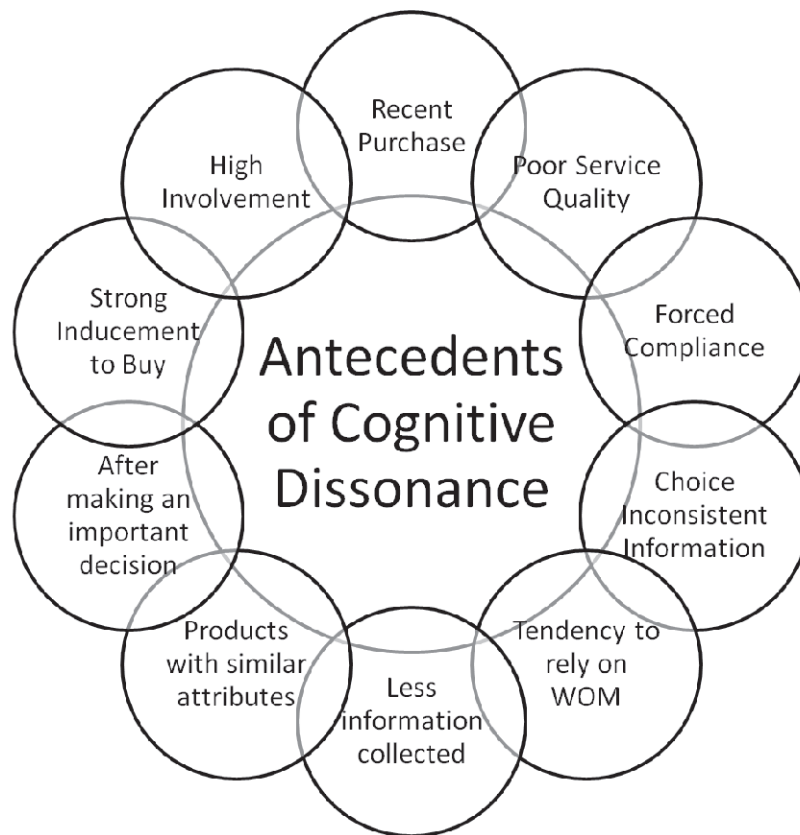
### **Conclusion**

From the above discussion it is clear that cognitive dissonance is a tendency that can adversely affect the profitability of the firm even. Hence it should be managed tactfully and it is prime responsibility of marketer to reduce this type of dissonance before and after the purchase and thereby he can add value for his customers. Research can also be done in the area of dissonance reduction, development of some measurement scale for the dissonance, identifying some more factors responsible for dissonance.

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## Appendix



Sources: Compiled based on literature review

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# A Study of Green Banking Practices of Banks in Anand and Vallabh Vidyanagar – Bankers' Perspective

Kamini Shah, Preethi Luhana

## Abstract

Green Banking is comparatively a new development in the financial world. It is a form of banking taking into account the social and environmental impacts with a view to protect and preserve environment. All over the world, banks and financial institutions are concerned about the overall impact of depletion of environment. The key reasons for going green are increasing energy consumption and energy prices, growing consumer interest in environmental friendly goods and services, higher expectations by the public on enterprises' environmental responsibilities and emerging stricter regulatory and compliance requirements. This paper evaluates the perspective of banks in Anand and Vallabh Vidyanagar for their overall approach to green banking. The study reveals the effectiveness of green banking strategies, products and services followed by these banks for making them environment friendly.

## Introduction

India's growth story and commitment to cut its carbon intensity by 20-25 percent from 2005 levels by 2020 provides tremendous opportunities for Indian banks from funding sustainable projects to offering innovative products and services in the areas of green banking. Green Banking refers to the banking business conducted in such a manner that helps the overall reduction of external carbon emission and internal carbon footprint. To aid the reduction of external carbon emission, bank should finance green technology and pollution reducing projects. Green finance as a part of Green Banking makes great contribution to the transition to resource efficient and low carbon industries i.e. green industry and green economy in general.

Government efforts to bring maximum people of the country in banking net are expected to enhance the need for banking services in rural areas and therefore drive the growth of the sector; Programmes like MNREGA, Jan Dhan Yojana, Aadhar based payment etc. are aimed at financial inclusion. The Reserve Bank of India (RBI) has relaxed its branch licensing policy, thereby allowing banks (which meet certain financial parameters) to set up new branches in tier-2 to tier-6 centers, without prior approval from RBI. It has emphasized the need to focus on spreading the reach of banking services to the unbanked population of India.

## Green Banking

Green banking considers all the social and environmental/ecological factors with an aim to protect the environment and conserve natural resources. It is also known as an **“ethical bank or a sustainable bank”**. They are controlled by the same authorities but with an additional agenda towards taking care of the Earth's environment/habitats/resources. Green banking promotes environmental friendly practices and reducing carbon footprint from banking activities. There are various ways to adopt Green Banking. One can use online banking instead of branch banking, paying bills online instead of mailing them, open up CDs and money market accounts at online banks, instead of large multi-branch banks or finding the local bank in your area that is taking the biggest steps to support local green initiatives. It helps to address a variety of environmental problems, including climate change, deforestation, air quality issues and biodiversity loss. Green Banking Product Coverage includes: Green mortgages, Green loans, Green credit cards, Green savings accounts, Green checking accounts, Green CDs, Green money market accounts, Mobile Banking, Online banking etc. It includes combining operational improvements through technology interface and changing customers banking habits.

## Benefits of Green Banking:

1. All banks are operating on a core banking solution (CBS). It is possible for the banks to adopt paperless or less paper for office correspondence,



audit, reporting etc. Banks can switch over to electronic correspondence and reporting thereby controlling deforestation.

2. Many NGOs, corporate bodies and environmentalists are propagating environment consciousness among the public in general by arranging awareness programs and organizing seminars etc. eg. "Free pollution check program" organized by a car manufacturer. Banks may associate with such corporates which can brighten the image of the bank.
3. Bank can also introduce green bank loans with financial concessions in comparison to traditional loans for environment friendly products and projects such as fuel efficient vehicles, green building projects, housing and house furnishing loans to install solar energy system etc.
4. Banks follow environmental standards for lending which compel entrepreneurs to change their business to environment friendly practices which are a good sign.

#### **Challenges in Implementing Green Banking Techniques:**

The following challenges are faced while adopting green banking practices by Banks:

1. Green banks restrict their business transactions to those business entities who qualify screening process done by green banks. With limited number of customers they will have a smaller base to support them. Many banks in green business are in start-up phase and generally it takes long time for a bank to earn profits. Thus, it does not help banks during recession.
2. Green banks require experienced and talented staff to provide proper services to customers.
3. If banks are supporting projects which may damage the environment, it adversely affects their reputations.
4. Credit risks arise due to dealing with those customers whose businesses are affected by the cost of pollution, changes in environmental regulations etc. This increases probability of customer default as a result of sudden expenses for capital investment in production facilities,

reduction in market share and third party claims.

#### **Methods in Green Banking**

1. **Internet Banking:** Online banking helps in conservation of natural resources by saving paper, energy and expenditure of natural resources. Even customers can perform most of their banking related functions without visiting the banks personally. For this customer must possess an internet banking user ID, a password provided by the bank in which customer has an account. Online banking includes use of credit cards, debit cards, online bill payment and electronic fund transfer. It also helps customers to save money and time by avoiding late payments.
2. **Bank Accounts:** Customers can check their accounts on ATM. They can avail services including online payment, debit cards and online bank statements etc..
3. **Credit Card:** Some of the banks use green credit cards for donating funds to an environment friendly non-profit organization.
4. **Recycled Papers:** Banks can purchase recycled paper products with highest post-customer waste content including monthly statements, ATM receipts, annual reports, envelopes etc.
5. **Mobile Commerce:** By using it customer can check balances, transfer funds or pay bills from the phone. It also helps to save time and energy of the customers.
6. **Payments to Stakeholders:** Most employers give employees their pay check electronically, creditors can be paid through cheque or ETF.

#### **Green Banking Initiatives of various banks in India:**

The Government of India has issued guidelines to banks on Green Initiatives. In order to implement the green initiatives of the government, all public sector banks and all regional rural banks were asked to:

- I. Increase use of;
  - Electronic Payment.
  - Core Banking Solution (CBS).
  - Video Conferencing.

- II. Offer centralised payment system through sub-membership route to all banks to facilitate direct Electronic Benefit Transfer (EBT).

Many banks in India have taken various green banking initiatives. It may be in the form of green products or services, green communication (like online bill pay or online payment etc.), green projects or green events. Some of them have been listed below:

**State Bank of India** the country's largest Public Sector Bank had launched its 'Green Channel Counter' facility on State Bank Day, at 57 select branches of the Bank spread across the country as a step towards paperless 'Green Banking' for deposit, withdrawal and remittance transactions. With this facility, the customers need not fill up any pay-in slips or draw cheques for depositing or withdrawing money from their accounts, saving paper and thereby contributing to the concept of 'Green Banking'. SBI became the first bank in the country to venture into generation of green power by installing windmills for captive use. As part of its green banking initiative, it installed 10 windmills with an aggregate capacity of 15 MW in the states of Tamil Nadu, Maharashtra and Gujarat.

**IDBI** has been actively complementing Government of India's policies, initiatives and targets set for sustainable economic development and environment protection. IDBI has been involved in implementing several projects under Montreal and Kyoto Protocol obligations for over two decades. IDBI Bank is the first among the public sector banks to have entered into carbon credit business and is actively involved at national and international levels in various forums on climate change.

**ICICI Bank's** Green initiatives range from Green offerings/ incentives, Green engagement to Green communication to their customers. Paperless initiatives like e-statements and e-greetings helped ICICI Bank save 30,000 trees from being felled in 2009-10, besides cutting down spending on stationery by Rs 7.36 crore.

The recycling initiative of **Axis bank** under the Green Banking banner has helped the bank productively use around 21,572 kilograms of dry waste.

**Punjab National Bank** launched green e-vigilance for the bank which involves paperless dealings in complaint and vigilance procedures through e-network which drastically cuts down cost and time.

#### **Literature Review:**

**Raghupati M. and Sujatha S** have concluded Banks are responsible corporate citizens. Banks believe that every small 'Green' step taken today would go a long way in building a greener future and that each one of them can work towards to better global environment. 'Go Green' is an organization wide initiative that moving banks, their processes and their customers to cost efficient automated channels to build awareness and consciousness of environment, nation and society.

**Bahl, Sarita** referred that India's growth account and obligation to cut its carbon intensity by 20-25 percent from 2005 levels by 2020 provides tremendous opportunities for Indian banks from funding sustainable projects to offering innovative products and services in the areas of green banking. Initially, these commitments to environmental and social guidelines will cause a huge financial burden for Indian banks. For effective green banking, the RBI and the Indian government should play a proactive role and formulate a green policy guidelines and financial incentives. The survival of the banking industry is inversely proportional to the level of global warming. Therefore, for sustainable banking, Indian bank should adopt green banking as a business model without any additional postponement.

**Jha, Nishikant and Bhome, Shraddha** in their study referred that recently Green Banking strategies become more prevalent, not only among smaller alternative and cooperative banks, but also among diversified financial service providers, asset management firms and insurance companies. Although these companies may differ with regard to their stated motivations for increasing green products and services (e.g. to enhance long-term growth prospects, or sustainability principles on which a firm is based), the growth, variation and innovation behind such developments indicate that we are in the midst of a promising drive towards integrating green financial products into mainstream banking. This concept of "Green Banking" will be mutually beneficial to the banks,

industries and the economy.

**Ritu** in her study concluded that there is an urgent need to create awareness and follow green banking in today's business world of innovative technologies so as to make our environment human friendly. Green banking if implemented sincerely opens up new markets and avenues for product differentiation. In India there has not been much initiative in this regard by banks and financial institutions. They are not as green as foreign banks. As initially, these commitments will cause a huge financial burden for Indian banks. For effective adoption of green banking, the RBI and the Indian government should play major role and formulate green policy guidelines and financial incentive.

**K. Sudhalakshmi and Dr. K. M. Chinnadorai** in their study on "GREEN BANKING PRACTICES IN INDIAN BANKS" opines that Banks can provide important leadership for the required economic renovation that will provide new opportunities for financing and investment policies as well as portfolio management for creation of a strong and successful low carbon economy. Green banking means combining operational improvements, technology and changing client habits in banking business. It is a win-win situation for all to bring benefits in an increasingly competitive marketplace.

### **Research Methodology**

#### **Research Problem:**

Indian banks are far behind in implementation of Green Banking in spite of a lot of opportunity in green banking and RBI notifications. There is a lot of scope for all banks and they can not only save our planet earth but also can contribute in transforming the whole world towards energy consciousness. Banks must educate their customers about Green Banking and adopt all strategies to save mother

earth and banks image building. Based on these discussion research problem identified is to study green banking practices of selected banks in Anand.

### **Research Objectives**

The research objectives are as follows:

- 1) To study conceptual aspects of Green Banking
- 2) To study the services provided through Green Banking.
- 3) To study the awareness of Green Banking techniques among bankers.
- 4) To study the steps and measures taken by the bankers to promote the Green Banking techniques adopted by their respective banks

### **Data Collection**

An attempt has been made in this research to review available literature on Green Banking and have carried out an empirical study. In order to address the research problem and fulfill the research objectives various sources of information on Green Banking used are as follows:

**[a] Primary Data:** The primary data has been collected to examine Green Banking practices of 10 Banks in Anand and Vallabh Vidyanagar.

**[b] Secondary Data:** The secondary data have been collected using various articles from journals, magazines and visit to relevant websites.

### **Sample Selection**

Data is collected using a **purposive convenience sample of banks in Anand and Vallabh Vidyanagar, using structured questionnaire supported by personal interview.**

The sample size of banks is limited to 10 banks [both private and nationalized] in Anand and Vallabh Vidyanagar as listed below:

Table 1: Respondent Banks

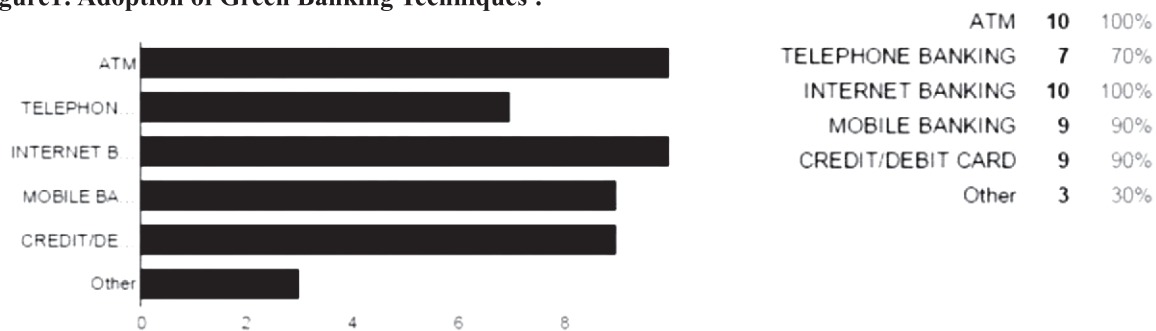
1. ICICI Bank	2. Bank of Baroda
3. IDBI Bank	4. Punjab National Bank
5. Kotak Mahindra Bank	6. State Bank of India
7. AXIS Bank	8. Dena Bank
9. HDFC Bank	10. Union Bank of India

### Data Analysis & Findings:

The data were processed using the Microsoft Windows Excel and a mix of appropriate analytical tools and techniques including simple frequency tables, percentages etc. to analyze the data and arrive at meaningful interpretation. The main findings of survey results are as follows:

There are two types of banks i.e. Public Sector Banks and Private Sector Banks selected for our survey. Out of 10 banks selected, 60% i.e. 6 banks are Public Banks and 40% i.e. 4 banks are Private Sector Bank. All the bankers are aware about the Green Banking techniques adopted by various banks.

**Figure1: Adoption of Green Banking Techniques :**

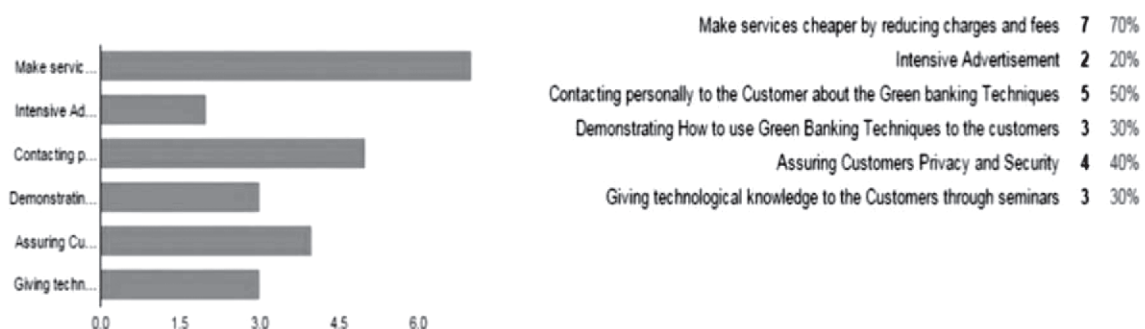


Generally, the Green Banking Techniques adopted by Banks are ATM, Telephone Banking, Internet Banking, Mobile Banking and Credit/Debit Card. From the above Figure 1, we can conclude that all the 10 banks provide ATM facility and Internet Banking, 9 out of 10 banks are providing Mobile banking and Credit/Debit cards, 7 out of 10 banks are providing Telephone banking. However, 30% Banks are providing other services such as GCC-Green Channel Counter, 24\*7 Banking, Cash depositor Machine, Passbook printing Machine and Personalized Banking.

### Need to adopt Green Banking Techniques by banks:

When we asked the bankers about need for adopting Green Banking Techniques, they all were of the opinion that Green Banking Techniques are advisable as it is time saving and tech savvy. It has reduced the excessive use of paper which in turn saves the environment. These techniques are eco-friendly as you get the bank accessible on your fingertips. It saves a lot of time of transactions, the time needed to physically go to the banks to deposit, withdraw or monitor changes in the account.

**Figure 2: Strategies adopted by banks to drive customers towards the Green Banking Techniques**



The following figure 2 explains various strategies adopted by the banks to drive customers towards Green Banking techniques. Maximum banks (70%) are making services cheaper by reducing bank charges and fees followed by Contacting personally to the customers about the Green Banking techniques (50%), Demonstrating how to use Green Banking techniques to the customers, Assuring

customers Privacy, safety and Giving technological knowledge to the customers through seminars. Intensive Advertisements is the least used (20%) strategy for Green Banking. Thus, all the bankers are of the opinion that making services cheaper by reducing charges and fees is the best strategy adopted by banks to drive customers towards adoption of Green Banking techniques.



**Table2:Challenges faced by banks in adopting Green Technologies:**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Cost of technological adoption is too high	0	2 (20%)	0	5(50%)	3(30%)
Traditional banking is still remains the best option for customer	0	3(33.3%)	5(55.6%)	1(11.1%)	0
Technological illiteracy among bankers	0	0	4(40%)	5(50%)	1(10%)
Technological illiteracy among customers	0	1(10%)	4(40%)	5(50%)	0

The above Table 2 indicates that some bankers think that the cost of technological adoption of Green banking is too high. 3 out of 10 banks strongly agree that the cost of adoption is too high, and only 2 out of 10 banks disagree that the cost of adoption of Green Banking Technique is not high. This is the banker's point of view but as we all know that such decisions are taken by the top level management and not by the branch head so according to bankers it may be costly but then for the banks it is beneficial in the long run and such services would attract tech savvy customers.

When it was asked whether traditional banking is still the best option or not, bankers gave a neutral answer. Only 3 out of 10 bankers disagreed that traditional banking is the best option for customers. Traditional banking involved much use of paper and manual work as well and it was time consuming way of banking but with the advent of Green Banking techniques banks have adopted it and much time consuming paper work is reduced drastically.

Talking about the technological illiteracy among bankers, it's clearly seen that 40% bankers are neutral about their opinions while 50% bankers feel there is technological illiteracy among bankers. However, bank employees are well trained about any new technology before launching in the market. When asked about Technological illiteracy among customers, 4 out of 10 Bankers were of a neutral opinion. But then, 5 out of 10 Bankers agreed that there is technological illiteracy among customers. This can only be a problem where they are dealing with their rural customers as the urban population is aware about the technological up-gradation. Bankers won't face this problem of technological illiteracy among the urban customers.

#### **Limitations of Research:**

Before making any concluding comments, it is important to acknowledge and point out some

limitations of the survey conducted.

1. The survey was limited to banks in Anand and Vallabh Vidyanagar only. The Green Banking practices of banks in Anand and Vallabh Vidyanagar are not likely to be representative of all banks throughout the country.
2. The responses to questionnaire by the bank branch managers may be their personal views and hence do not always reflect the Green Banking practices used throughout the country.
3. The survey questionnaires used in this study were essentially limited in scope. Though the survey technique is not without flaws, it has been generally accepted as a reasonable proxy given the time and personal constraints in banking industry.

With these limitations in mind, several observations can be drawn from the survey.

#### **Scope for Further Research study:**

Due to the limited scope of the present study, a large number of research issues are not attempted but are felt during the course of the study. Some of them are as follows.

1. The research can be carried out to cover banks of the whole country as well as customers from different sections of the society across the country, so as to understand the scenario of Green Banking accurately.
2. Green Banking practices of foreign banks in India can be compared with Indian banks to have a better understanding.
3. The cost benefit analysis can be carried out to quantify the profitability in

implementing Green Banking.

### **Conclusion**

On the basis of our survey we can conclude that many of the bankers are aware about the Green Banking Techniques. Basically Green banking reduces paper work and rely on electronic transactions. Less paperwork means less cutting of trees. It also involves creating awareness among people about environmental and social responsibility enabling them to do an environmental friendly business practices. Banks should promote the news related to green banking on their websites. Banks have to increase technology investments into digital channels such as Internet, mobile, tablet, and social media to push toward digital convergence

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| 26. <a href="http://indianresearchjournals.com/pdf/IJMFSMR/2012/February/ijm-4.pdf">http://indianresearchjournals.com/pdf/IJMFSMR/2012/February/ijm-4.pdf</a> | 28. <a href="http://www.ijifr.com/pdftsave/25-09-2014828V2-E1-015.pdf">http://www.ijifr.com/pdftsave/25-09-2014828V2-E1-015.pdf</a> |
| 27. <a href="http://www.abhinavjournal.com/">http://www.abhinavjournal.com/</a>   |   |
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## **“Critical Appraisal of Customers' Satisfaction In The Postal Services In Vadodara City of Gujarat State”-An Emprical Study**

**CS Kalpesh Purohit**

### **Abstract**

The fundamental purpose of this descriptive research study was to measure customers' satisfaction of users of postal services who were conveniently drawn from the Vadodara city of Gujarat State. The researcher has also evaluated customers awareness and usage of the selected postal services; frequency of visit to the post office; intension to recommend to others to continue to use the postal services along with comparative analysis of their expectations versus experience on postal services. The primary data were collected using structured-non disguised questionnaire from the users of postal services to offer results, findings and implications using descriptive statistics as well as market performance analysis and structural equation model was developed to better modify and formulate marketing strategies.

### **Prologue:**

Service can be described as an act of helpful activity; to help; or an aid to offer someone a service or the serving of a sovereign, State, or Government in some official capacity or the duty or work of a public servant (<http://dictionary.reference.com/browse/service>, retrieved on 10/12/2010). Postal services includes carrying letter correspondence, provision for transfer of money, deposit of money accepted by the post offices, etc., availed by the society and known as postal services. ([www.nios.ac.in](http://www.nios.ac.in)) . The postal service sector of India can be broadly classified into two distinct constituents viz, the postal services and the courier services. The postal services include varying services such as viz., picking up letters, parcels & packages, and its prompt and timely delivery at the destined destination within and outside India (<http://eaindustry.nic.in>) The postal services were traditionally provided at manually operated counters. But, now with use of IT has further extended the scope of the postal services to be provided, making it more responsive and error-free (<http://www.indiapost.gov.in>, retrieved on 26/10/2009). India Post is brand name revealing recognition with The Department of Posts which is operated as postal system by Government of India and described as the post office within in India. ([www.indiapost.gov.in](http://www.indiapost.gov.in),retrieved on 26/10/2010).

India Post IT project is major transformational project which will IT enable, network and connect post offices, rolling out an integrated, scalable technology solution. The project is currently in the implementation phase and the roll out is expected to be completed in 2015. The IT Project also aims to provide customer interaction through multiple channels like call centers and internet, ATM, mobile banking and net banking for Post Office Savings Bank customers ([http://www.indiapost.gov.in/Report/Annual\\_Report\\_2013-2014.pdf](http://www.indiapost.gov.in/Report/Annual_Report_2013-2014.pdf)).

The changes in the business related environment concerning the public utilities or services including postal services require altogether a new kind of attitude and outlook as well as formulation of business and service strategy from the organizations' perspective considering the new challenges being faced by them in order to provide services to everyone without discrimination by remaining within the policy framework as formulated by the Government of India especially in case of postal services. More than reasonable variance in service quality of postal services needless to state directly affects customers' satisfaction.

### **A Brief About Department of Post: An Overview:**

The Department of Posts in India has been enjoying significant position as largest postal network in the world and truly regarded as the major support for establishment of network of communication in as well as fundamental reason for socio-economic development of India for the last 150 years. It has enriched the lives of each and every citizen, by providing variety of



services like mail, banking, insurance, and money transfer or retail services. The Department of Posts in India is having a network of 154866 post offices of which 139040 are in the rural areas. It is regarded as the public utility services having main object is to enrich social and public lives by providing valuable services.

The fundamental activity of India's Post department is handling and processing, diffusing and delivering mail received from more than 5.7 lakh letter boxes processed by network of Mail Offices and conveyed by rail, road and airlines throughout India to reach the citizen. The operations of postal organization at their counters includes fundamental postal services that mainly include viz., the sale of stamps, booking of registered articles, insured articles, value payable articles, remittance of money through money orders, booking of parcels, and savings bank transactions. These wide ranges of postal services are now provided promptly and without error through single window concept progressively through computerized technological support which traditionally provided with less technological support (Annual Report, 2011-2012 pp.2, [www.indiapost.gov.in](http://www.indiapost.gov.in), retrieved on 12/03/2013).

One of the world's largest Networks of postal services is India having 1, 54,866 Post Offices as on 31.03.2011 and 89.78 per cent that is 1, 39,040 are located in the rural areas. Only 23,344 Post Offices were primarily providing postal services in urban areas of India at the time of independence.

Thus, since Independence the Postal network has recorded seven times growth, primarily with the focus in rural areas. The average coverage of Post Office includes an area of 21.23 Sq. Km. and 7,814 people from population. Opening of Departmental Post Offices on a small scale leads to expansion of Postal Network in rural areas which function for a period of three hours to five hours in a day and are operated through Gramin Dak Sewaks who are appointed on an ad hoc basis and they are paid allowances for time and services rendered in their respective areas. At the same time full time operation of Departmental Post Offices post for 8 hours run by regularly appointed employees of the Postal departmental. For opening post office branches in rural area the government consider population, distance and income norms fixed for the purpose in order to maintain balance in work load

and desired level of services. The Government aims to fulfill obligation of universal services by providing 85 per cent subsidy in mountainous, tribal, desert and unreachable areas as well as 66.66 per cent in normal rural areas. However, in urban area post offices no subsidy is offered as urban areas Post Offices are assumed to be financially self-supporting and are expected to earn 5 percent profit after the first year of its operation. (Annual Report, 2011-2012 pp.14, [www.indiapost.gov.in](http://www.indiapost.gov.in), retrieved on 12/03/2013).

### **Review of Literature:**

An attempt has been made by the researcher to collect various kinds of information about postal services and customer satisfaction and review the same as follows.

#### **A brief outline of literature on customers' satisfaction from postal services has been given as follows.**

William S. Broomfield (1992) had viewed the customer Satisfaction Index (CSI) as an effective toll to measure customer satisfaction considering quality of service provided by the Post offices. The findings reported by the researcher highlighted the fact that the survey respondents had generally rated the Postal Service's overall performance higher than the publicly released CSI results on how satisfied household customers were with specific service dimensions (William S. Broomfield, 1992).

USPS Delivery Performance Information (1995) USPS was required to provide efficient postal services promptly and in a reliable manner to all communities and to customers in all areas and postal services to rural areas, communities, and small towns where post offices are not self-sustaining. In determining all policies for postal services, USPS is give the highest consideration to, transportation, and delivery of vital mail letters with continuing to focus on the end-to-end service performance of all mail (USPS Delivery Performance Information, 1995).

Michael R. Carrell, Norbert F. Elbert (1974) had conducted research study with the objective of identifying some of the personal and organizational variables that determined the job satisfaction of postal clerks. Such studies are new to the postal system, which previously had closed its doors to

research by outsiders. The Post officials had stressed that one of the primary objectives of the "new" Postal Corporation is to increase the job satisfaction of its employees without regard to improved performance or reduced turnover. The postal reorganization together with the new wage structure is giving postal officials increased flexibility in the recruitment and placement process. This study delineated the direction a mid-western postal installation should follow in structuring new recruitment and placement procedures. The study had focused on postal clerks' turnover, absenteeism, and dissatisfaction was found as highest with the clerks.

Specifically, it would be difficult to make any generalizations about the significant main effects of location, job category, education, and home environment when it had shown that interaction among these variables does exist (Michael R. Carrell, Norbert F. Elbert, 1974).

Anand. M. B, Dr Srinivas D L And Dr. H H Ramesh (2013) highlighted the fact that that the performance and growth of Indian post over the years is not so remarkable and focus on the need to meet the challenge of reaching target of large volumes of money orders, bank accounts with low-cost to citizen of India to the financially barred population with the help of building partnership strategically with financial institutions, mutual fund and insurance companies and so on (Anand.M.B, Dr Srinivas D L and Dr. H. H. Ramesh, 2013).

**A brief outline of literature on customers' satisfaction has been given as follows:**

Richard L. Oliver (1980) provided a more substantial and simultaneous test of the relationships among expectation, disconfirmation, satisfaction, and the traditional criteria of attitude and purchase intention that has been performed to date.

It suggested that person makes comparison and relative judgment based on frame work of reference created by his or her expectations and the when outcomes were less than expectations the judgment is said to be negative disconfirmation fall below this reference point and said to be positive disconfirmation when outcomes were above expectations. Attitude change, purchase intention was believed to be outcome of satisfaction which is

sum total of psychological state resulting from emotions surrounding disconfirmation or confirmation of the consumers' expectations (Richard L. Oliver, 1980).

Gilbert A. Churchill, Jr., Carol Surprenant, (1982) investigated whether to consider disconfirmation as an variable affecting satisfaction which is a common argument generally made or as commonly argued, or whether the effect of disconfirmation was reflected on expectation and perceived performance. Because most of the research on consumer satisfaction had used non-durables, this finding had important implications for future research (Gilbert A. Churchill, Jr., Carol Surprenant, 1982).

Claes Fornell (1992) examined how the market share and customer satisfaction are related considering that in industries where homogeneous supply and heterogeneous demand was observed the outcome is lower satisfaction and where demand and supply were matched the outcome is higher satisfaction (Claes Fornell, 1992).

Customer satisfaction is based on the degree to which customer expectations, needs or desires are fulfilled by firm and satisfaction of customers should be adopted a goal by manager who believe that it is the path to make profits for firm. When benefits acquired by customer exceed costs incurred provides higher value to customer he or she is likely to be more satisfied by a larger margin. Since consumer satisfaction is the objective of marketer, marketing's effectiveness must be measured by how well it satisfies consumers (William D. Perreault, 2002).

Customer expectations of service play an important role in the purchase decision. The marketing plan must cover the four main components or areas of customer service are customer education; employee education; customer complaint administration, and cost levels of providing services (Bernard Katz, 2004).

Kang Duk Su and Maryam M. Khan (2003) investigated that tourists visiting Cheju Island in South West Korea expect courteous behavior and more information providing attitude from services provides a feeling of trust and confidence (Kang Duk Su and Maryam M. Khan, 2003).

Jantawan Noiwan et. al. (2005) evaluated computer attitude and computer self-efficacy of 151 Thailand undergraduate students. They found that students' possess moderately positive attitudes on computer technology and neutral confidence in using computer applications which reflected their consistent satisfaction for computer technology (Jantawan Noiwan et. al., 2005).

### **Research Methodology:**

The major objectives of this descriptive research study were to identify and evaluate crucial dimensions that were considered by users of postal services and to measure selected customers' overall satisfaction /dissatisfaction as experienced and reported by selected customers on the various kinds of selected Indian postal services as offered by the various post-offices located in the Vadodara city in the State of Gujarat. The sample was conveniently chosen based on convenience non-probability sampling methods from Vadodara city of the Gujarat State.

### **Reliability of the Structured Non-Disguised Questionnaire:**

Reliability tests were run to determine how strongly the attitudes were related to each other and to the composite score. All dimensions of the questionnaire related with measuring customers' satisfaction were tested and the Cranach's alpha ranged from 0.629 to 0.884 which really shows Internal reliability of the scale. The reliability of a scale as measured by coefficient alpha reflects the degree of cohesiveness among the scale items (Naresh K. Malhotra, 2007; Jum C. Nunnally, 1981, and Puay Cheng Lim & Nelson K. H. Tang, 2000) [Please Refer Appendix-Table Number-01].

### **Data Analysis & Interpretation:**

The primary data were collected using structured non-disguised have been analyzed by applying SPSS 15.0. It mainly revealed following.

#### **5.1: Profile of Selected Postal Service Users:**

As given in the table number 02 it was found that 63 per cent of selected postal service users were male; more than 75 per cent of them were between age group of 25 to 60 years. Considering occupation and educational qualification around 60 per cent were

graduate and more than graduate and around 50 per cent were engaged in services occupation. 55 per cent of the selected postal service users were found to be two earning family members and 78 per cent of them have annual income between 3 to 10 lakhs [Please Refer Appendix-Table Number-02].

### **Awareness and Usage of Selected Postal Services:**

Table number 03 shows that selected respondents' awareness and usage of various selected postal services. Data presented with percentages of awareness and percentages of usage with regards to selected postal services together with usage ratio (Usage /Awareness). It reveals that with regards to Sale of Stamps/Covers (0.91), Telephone Bills payments (0.72), Letter Postage/Mail services (0.80), Registered Post service (0.68), selected respondents have high degree of awareness and high rate of usage.

With regards to Collection of Parcels (0.42), Post Office Savings Bank Deposit Account (0.41), Post Office Time Deposit Account (0.44), Post Office Kisan Vikas Patra (0.45), Post Office Public Provident Fund (0.22), selected respondents have high awareness followed by low rate of usage. And with regards to Postal Life Insurance (PLI) (0.30) selected respondents have low awareness and low rate of usage [Please Refer Appendix-Table Number-03].

### **Frequency of Visits to Post Office:**

From table number 04 it can be revealed that 41.53 percentage of those who have visited the post office Once in a six month, 43.26 percentages of those who visited to the post office Once in a Month, 5 percentage of those who visited to the post office once in a fortnight, and 6.73 percentage of those who visit once in a week followed by 3.46 percentage of those who visited to the post office each alternate day, have agreed that India Post is adopting changing scenario.

Of those who visited once in a six month, 47.35 percentage, of those who visited once in a Month, are 33.08 percentage, 10.14 percentage of those who once in a fortnight, and 2.50 percentage of those who visited once in a week, and 2.50 percentage of those who visited on each alternate day, have reveal their opinion that India Post is not adopting changing scenario [Please Refer Appendix-Table



Number-04].

Table number 05 presents the cross tabulation for frequency of visit by the customers and their views regarding recommendation to others to continue to use the postal services. It can be revealed that 42.48 percentage of those who have visited the post office Once in a six month, 41.11 percentages of those who visited to the post office Once in a Month, 9.98 percentage of those who visited to the post office once In a Fortnight, and 3.68 percentage of those who visited once in a week 2.73 percentage of those who visited to the post office each alternate day, would like to recommend to others to continue to use the postal services. Of those who visited once in a six month, 53.81 percentages, out of those who visited once in a Month, 35.74 percentages, and 6.82 percentages of those who visited once in a week, followed by 3.61 percentage of those who visited on each alternate day, would not like to recommend to others to continue using the postal services [Please Refer Appendix-Table Number-05].

#### **Overall Satisfaction /Dissatisfaction:**

Table number 06 give highlights about selected respondents overall satisfaction/dissatisfaction with regards to selected criteria. It shows that with regards to 'Location of the Post Office/s', 29.3 percentages of respondents are dissatisfied and 70.7 percentages are satisfied. For 'Timing' the retrieved statistic is 40.4 percentages for dissatisfied respondents followed by 59.6 percentages for satisfied. With regards to 'Ambience of the Post Office/s' 76.3 percentages are dissatisfied and 23.7 percentages are satisfied and for 'Counter services at the Post office/s' this data is 71.9 and 28.1 percentages, respectively.

With regards to 'Access of the Information at the post office/s', 76.3 percentages are dissatisfied and 23.8 percentages are satisfied, followed by 82.6 percentages for dissatisfied respondents and 17.4 percentages for satisfied respondents for 'Availability of the Information at the post office/s'. With regards to 'Behavior of the staff' and 'Complaint solving', statistics for dissatisfied respondents are 83.3 percentages and 84.9 percentages, followed by 16.7 percentages and 15.1 percentages for satisfied respondents, respectively [Please Refer Appendix-Table Number-06].

#### **6.0: MARKET PERFORMANCE ANALYSIS ON SELECTED CRITERIA FOR SELECTED POSTAL SERVICES PROVIDED TO USERS OF POSTAL SERVICES:**

The Table number 07 provides the details about market performance analysis. Based on users of the postal services expectations and experiences for Vadodara city, the researcher has computed 'Mean Importance Ratings' (Im) and 'Mean Performance Ratings' (Pm) for each of the selected features of the services provided by Post offices to evaluate whether the users of the postal services were delighted; satisfied; dissatisfied. These criteria were defined as: (1) users of the postal services were delighted if  $Im/Pm > 0.98$ ; (2) users of the postal services were satisfied if  $0.98 > Im/Pm > 0.92$ ; (3) users of the postal services were dissatisfied if  $Im/Pm < 0.92$  (Table no. 07).

The overall Market performance analysis considering all 64 criteria and resultant satisfaction score of it was revealed that users of postal services dissatisfaction on majority of the service features except three criteria viz., Reasonability of Service Rates /Charges Post office located at a convenient place form residence and Post office located at a convenient place form office which revealed that users of postal services were highly satisfied (delighted). Similarly three criteria viz., Post office located at a convenient place form work Place; Working Hours and Delivery of Pass Books, Certificates etc. in due time which revealed that users of postal services were satisfied.

#### **Structural Equation Model of Relationship Between Overall Evaluations of Selected Criteria Related To Services Provided By Post Office:**

In figure No. 01 a simple regression model is presented in which one observed variable, the overall ratings of services provided by post office, is predicted as a linear combination of the other seven observed variables, viz., Location of Post office; Timing of the Post office; Ambience of the Post Office; Counter Services at the Post Office; Access of Information; Behaviour of the staff and Complaint Solving. As with nearly all empirical data, the prediction will not be perfect.

There are some other variables (other than selected seven variables) that also assumed to have an effect

on overall ratings of services provided by post office for which the model assumes '1' as standardized regression weights which specifies that other variables must have a weight of 1 in the prediction of overall ratings of services provided by post office. Each single-headed arrow represents a regression weight. The value shown against two sided arrows (0.51, 0.50, 0.57, 0.39, 0.30, 0.27, 0.05, 0.21, 0.43, 0.58, 0.40, 0.31, 0.36, 0.51, 0.32, 0.27, 0.02, 0.37, 0.07, 0.16 and 0.05 is the correlation between seven observed variables. The values shown with single sided arrow (0.38, 0.31, 0.24, 0.16, 0.16, 0.16, and 0.07) are standardized regression weights. The value 0.16 is the squared multiple correlation of overall ratings of services provided by post office and seven variables that affect overall ratings of services provided by post office. It means the overall ratings of services provided by post office considering seven variables is influenced mainly by ambience of the post office (0.38) followed by access of information (0.31); behaviour of staff (0.24); location, counter services and complaint solving by the post office (0.16) and timings of the post office (0.07).

### **8.0: Discussions and Implications of The Research Study:**

The findings and review of the demographic profile of the selected users of postal services in the Vadodara city revealed that their decision for using postal services depend under the purview of married educated graduate and more than graduate male employed in service occupation, belonging to the age group of 25 to 60 years having family income up to Rs. 10 lakhs per annum. It became evident that male member in the family is the one who usually decides to use which postal, courier services or financial services provider and educational qualifications of the respondents influence the choice of service provider. However, putting together Graduates and Post graduate degree holders they were found to be strongly influencing the choice of postal service provider.

The SEM Model implies and suggests that good ambience of the post office attract the people to avail the postal services and post office find it difficult to get the visitors with poor ambience of the post office.

The access to information related to postal services

to users of postal services is another reason for strengthening the intension of revisit to post office for acquiring postal services. At the same time behaviour of postal staff, nearer location of post office, services provided at different counters of post office and resolving the complaints of users of postal services are the key determinants of quality of services provided by post office.

The Indian Government must make a serious note that reasonability of service rates or charges of postal services and location of post offices at a convenient place form residence as well as form office are the major determinant of satisfaction of users of postal services which should always be considered while framing operational policies and strategies for postal services in India.

The awareness and usage ratio was above 60 per cent for postal services viz., Sale of Stamps/Covers, Money Order; Speed Post; Electricity Bills Payments; Telephone Bills payments; Letter Postage/Mail services and Registered Post service, which focus on the need for maintaining and continuously improving these services for surviving in the face of completion form private couriers and other service providers.

The services like Collection of Parcels, Post Office Savings Bank Deposit Account and Recurring deposit Account; Post office Monthly Income Scheme, National Savings Certificates and Kisan Vikas Patra, where the awareness percentage were found to be more than 80 per cent but its awareness /usage ration was found to be between 40 to 50 per cent bring attention to the fact that strong promotion programme or campaign are necessary to promote such valuable services.

Considering the weightage given by users of postal services it can be suggested to postal department of Government of India that in a today's competitive market various other private courier services and development in the information and communication technology they need to improve not only physical ambience of their post offices but make the use of information technology; make the information related to postal services transparent and easy availability to masses; need to provide continuous training to postal services staff for improvement in their dealings with users of postal services and device a strategy to quickly resolve the doubts,

quarries and solve the complaints of users of postal services.

### **9.0: Limitations of the Research Study:**

Since this study involves collection of primary data through informal discussion and use of Structured –Non-Disguised Questionnaire based on an empirical field study, all efforts shall be made to check, reduce and minimize ambiguous responses as provided by the selected respondents that may lead to distorted and incorrect data information, analysis and findings.

As an empirical field study would mainly be undertaken based on collection of primary data and information mainly from urban population, it would be inappropriate to generalize it as fit and good for the whole population especially rural customers. Due to constraints of time, the study could not be broad based and was confined to only Vadodara city. The limitation of threat of the secondary data sources employed to the research project does prevail. The respondents' responses are subject to their own personal biases, as customers' have a complex set of important beliefs that cannot be captured through questionnaire or research instrument used. Though, results of the study obtained from selected samples are fairly meaningful, due care should be exercised in extending its conclusions to other service providers in the post offices. The generalizability of the study findings are limited by the limited sample size. Errors due to question misinterpretation or misunderstanding or customers' inattention might or might not have affected results systematically.

### **Epilogue:**

The Department of Posts serving the needs of Indian population for last 150 years has touched the lives of every individual through providing regular mails, financial services via banking, fulfilled desire of money transfer services and insurance services. Ever since its existence it has enjoyed the trust and support of its customers and stakeholders. The delivery of desired customer satisfaction and customers' retention are crucial issues for India post which calls for developing innovative ways of assessing consumers' satisfaction aimed at to extend help in facilitating improved and innovative postal services to citizens of India.

An understanding on the prevalent business practices concerning Indian Postal Services by the post offices in relation to customers' ever increasing expectations, and search for rewarding experiences is truly crucial and critical in identifying gap and suitable measures that can be taken up for improving in delivery of Indian Postal Services within and outside India to citizens of India.

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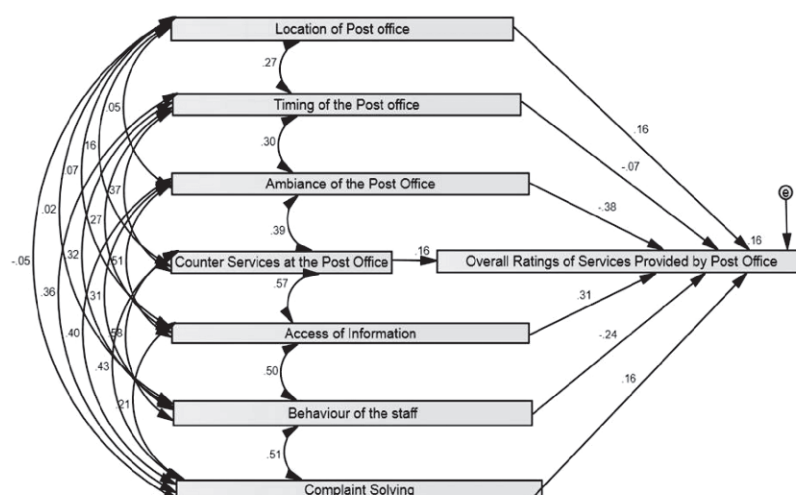
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## APPENDIX

Figure No.: 01: Structural Equation Model (SEM) of Relationship between Overall Evaluations of Selected Criteria Related to Services Provided by Post Office and its Overall Ratings





**Table Number: 01: Table Showing Summary of Indicators and Reliability Alpha Score**

Sr. No.	Selected Criteria	Cronbach's Alpha Coefficient
01	Location of the Post Office/s	<b>0.629</b>
02	Timing of the Post Office/s	<b>0.756</b>
03	Ambience of the Post Office/s	<b>0.824</b>
04	Services given to me by the various Counters of the post office/s	<b>0.800</b>
05	Access / Availability of the Information at the post office/s	<b>0.788</b>
06	Behavior of the staff of Post office/s	<b>0.884</b>
07	Complaint solving by the staff of post office/s	<b>0.799</b>
	Overall Reliability Score of 64 Items Covered by 7 Criteria	<b>0.930</b>

**Table Number: 02: Profile of Selected Respondents availing selected Postal Services**

Sr. No.	Selected Demographic Variables of Selected Respondents		Number and Percentages of Selected Respondents
<b>01</b>	<b>Gender</b>	Males	<b>756 (63.0)</b>
		Females	444 (37.0)
<b>02</b>	<b>Age Group</b>	Below 25	258 (21.5)
		25 to 45 years	<b>605 (50.40)</b>
		46 to 60 years	311 (25.90)
		Above 60 years	26 (2.2)
<b>03</b>	<b>Educational Qualification</b>	Less than Graduate	277 (23.1)
		Graduate	<b>439 (36.6)</b>
		Post-Graduate	285 (23.8)
		Professional Qualification/Diploma	199 (16.6)
<b>04</b>	<b>Occupation</b>	Student	93 (7.8)
		House wife	115 (9.6)
		Businessman/women	199 (16.6)
		Self employed	95 (7.9)
		Service	<b>585(48.8)</b>
		Professional	113 (9.4)
<b>05</b>	<b>Annual Family Income</b>	Up to Rs. 100000	78 (6.5)
		Rs. 300000 to 600000	<b>577 (48.1)</b>
		Rs. 600000 to 1000000	366 (30.5)
		More than 1000000	179 (14.9)
<b>06</b>	<b>Number of Earning Members</b>	Single	306 (25.5)
		Two	<b>655 (54.6)</b>
		Three	163(13.6)
		More than Three	76(6.3)
<b>07</b>	<b>Number of Dependents</b>	Up to 3	<b>467(38.9)</b>
		4 to 5	<b>488(40.70)</b>
		6to7	227(18.9)
		More than 7	18(1.5)
<b>08</b>	<b>Marital Status</b>	Unmarried	349(29.1)
		Married	<b>851(70.9)</b>



**Table No.03: Table Showing Summary of Selected Respondents 'Responses With Regards To Awareness and Usage of the Selected Postal Services**

Sr. No	Selected Postal Services Provided by the Post Offices in the Vadodara City	Number and Percentages		Ratio (Usage/Awareness)
		Awareness for Selected Postal Services	Usage of Postal Selected Services	
1	Sale of Stamps/Covers	1200 (100.0)	1096 (91.30)	0.91
2	Collection of Parcels	1046 (87.20)	436 (36.30)	0.42
3	Money Order	1167 (97.30)	699 (58.30)	0.60
4	Speed Post	1140 (95.0)	696 (58.0)	0.61
5	Electricity Bills Payments	1123 (93.60)	760 (63.30)	0.68
6	Telephone Bills payments	1182 (98.50)	852 (71.00)	0.72
7	Letter Postage/Mail services	1166 (97.20)	938(78.20)	0.80
8	Registered Post service	1121 (93.40)	764 (63.70)	0.68
9	Post Office Savings Bank Deposit Account	961 (80.10)	398 (33.20)	0.41
10	Post office Recurring deposit Account	1078(89.80)	557(46.40)	0.52
11	Post Office Time Deposit Account	930(77.50)	406(33.80)	0.44
12	Post office Monthly Income Scheme	1131(94.30)	605(50.40)	0.53
13	Post Office National Savings Certificates	1123(93.60)	607(50.60)	0.54
14	Post Office Kisan Vikas Patra	1095(91.30)	495(41.30)	0.45
15	Post Office Public Provident Fund	928(77.30)	205(17.10)	0.22
16	Postal Life Insurance(PLI)	618(51.50)	183(15.30)	0.30

**Table No.: 04: Table Showing Selected Respondents' Frequency of Visit To The Post Office And Their Opinion on The Statement That” India Post Is Adopting Changing Scenario”**

Sr. No.	Frequency of Visit	Opinion That India Post is Adopting Changing scenario				
		Agree	Disagree	Mean	S.D	Total
01.	Once in a six month	216(41.53)	322(47.35)	1.60	0.491	538(44.83)
02.	Once in a Month	225(43.26)	225(33.08)	1.53	0.500	480 (40.0)
03.	Once In a Fortnight	26(05.0)	69(10.14)	1.73	0.448	95(07.92)
04.	Once in a week	35(06.73)	17(02.50)	1.33	0.474	52(4.33)
05.	Each alternate day	18(03.46)	17(02.50)	1.49	0.507	35(2.92)
	Total	520(100.0)	680(100.0)	1.57	0.496	1200(100.0)

**Table No.: 05: Table Showing Selected Respondents' Frequency of visit to the Post Office And Their Recommendation to others to continue to Use the Postal Services**

Sr. No.	Frequency of Visit	Recommendation to Others to continue to Use the Postal Services				
		Yes	NO	Mean	S.D	Total
01.	Once in a six month	404(42.48)	134(53.81)	1.25	0.433	538(44.83)
02.	Once in a Month	391(41.11)	89(35.74)	1.19	0.389	480(40.0)
03.	Once In a Fortnight	95(09.98)	0(0.0)	1.00	0.000	95(07.92)
04.	Once in a week	35(03.68)	17(6.82)	1.33	0.474	52(4.33)
05.	Each alternate day	26(02.73)	9(3.61)	1.26	0.443	35(2.92)
	Total	951(100.0)	249(100.0)	1.21	0.406	1200(100.0)

**Table No.: 06: Table Showing Selected Respondents Overall Satisfaction/Dissatisfaction (Experience) With Regards To selected Criteria.**

Sr. No.	Selected Statements/ Items	Experience	
		Dissatisfied	satisfied
1	Location of the Post Office/s	352(29.3)	848(70.7)
2	Timing of the Post Office/s	485(40.4)	715(59.6)
3	Ambience of the Post Office/s	916(76.3)	284(23.7)
4	Counter services at the Post office/s	863(71.9)	337(28.1)
5	Access of the Information at the post office/s	915(76.3)	285(23.8)
6	Availability of the Information at the post office/s	991(82.6)	209(17.4)
7	Behavior of the staff	1000(83.3)	200(16.7)
8	Complaint solving	1019(84.9)	181(15.1)

Table No.:07: Overall Market Performance Analysis and Customers' Satisfaction Score for Selected Postal Services Provided to Users of Postal Services

Selected Service Features	Label	Pm	Im	C.S.S.= Im/ Pm	Sat. level	Selected Service Features	Label	Pm	Im	C.S.S.= Im/Pm	Sat. level
Location: Post office located at a convenient place form residence	L1	3.64	3.71	1.02	DE	Access of Information: Obtaining Information easily	I5	3.98	2.72	0.69	DS
Location: Post office located at a convenient place form office	L2	3.77	3.72	0.99	DE	Access of Information: Obtaining information conveniently	I6	4.04	2.75	0.68	DS
Location: Post office located at a convenient place form work Place	L3	3.65	3.53	0.97	S	Access of Information: Obtaining accurate information	I7	4.04	2.98	0.74	DS
Time: Working Hours	T1	3.95	3.63	0.92	S	Counter Services: Delivery of Services Promptly	C9	4.11	2.73	0.66	DS
Time: Start functioning as per notified time	T2	3.92	3.46	0.88	DS	Counter Services: Delivery of Accurate Services	C10	4.02	3.01	0.75	DS
Time: Recess Time	T3	3.67	3.27	0.89	DS	Counter Services: Trustworthy	C11	4.14	3.38	0.82	DS
Ambiance: Spacious	A1	3.84	2.89	0.75	DS	Counter Services: Reasonability of Service Rates /Charges	C12	3.79	3.82	1.01	DE
Ambiance: Proper Ventilation	A2	3.80	2.72	0.71	DS	Counter Services: Simple to Make Transactions	C13	3.85	3.32	0.86	DS
Ambiance: Proper Illumination	A3	3.79	2.94	0.78	DS	Counter Services: Delivery of Receipts for Transactions	C14	4.15	3.72	0.90	DS
Ambiance: Maintaining Cleanliness	A4	3.88	2.55	0.66	DS	Counter Services: Delivery of Pass Books, Certificates etc. in due time	C15	4.11	3.78	0.92	S
Ambiance: Maintaining in a Hygienic condition	A5	3.72	2.64	0.71	DS	Behaviour of the Staff of the Post Office: Reply to Queries	B1	4.00	2.80	0.70	DS
Ambiance: Provision for drinking water	A6	3.70	2.40	0.65	DS	Behaviour of the Staff of the Post Office: Prompt Reply to Ouerv	B2	3.82	2.74	0.72	DS
Ambiance: Adequate sitting arrangement for visitors	A7	3.83	2.32	0.61	DS	Behaviour of the Staff of the Post Office: Posing sufficient information	B3	3.78	2.97	0.79	DS
Ambiance: Facility of wash room	A8	3.66	2.33	0.64	DS	Behaviour of the Staff of the Post Office: Providing correct information	B4	3.90	3.02	0.77	DS
Ambiance: Availability of writing desk for visitors at the Post Office	A9	3.86	2.45	0.63	DS	Behaviour of the Staff of the Post Office: Possessing skill to perform job	B5	3.84	2.82	0.73	DS
Ambiance: Parking facility	A10	3.89	2.56	0.66	DS	Behaviour of the Staff of the Post Office: Well Trained	B6	3.95	2.84	0.72	DS
Ambiance: Availability of Fire Extinguisher for safety purpose	A11	3.74	2.52	0.68	DS	Behaviour of the Staff of the Post Office: Polite	B7	3.93	2.62	0.67	DS

Ambiance: Provision for deploying Security Guard	A12	3.81	1.97	0.52	DS	Behaviour of the Staff of the Post Office: Helpful	B8	3.98	2.69	0.68	DS
Ambiance: Installation of close Circuit camera	A13	3.69	1.82	0.49	DS	Behaviour of the Staff of the Post Office: Well-mannered	B9	3.50	2.75	0.79	DS
Ambiance: Displaying Emergency Help-Line Numbers	A14	3.80	2.42	0.64	DS	Behaviour of the Staff of the Post Office: Honesty	B10	3.94	2.99	0.76	DS
Counter Services: All counters are manned	C1	3.88	2.66	0.69	DS	Behaviour of the Staff of the Post Office: Providing Guidance for procedural compliance	B11	3.95	2.85	0.72	DS
Counter Services: Sufficient Numbers of service counters	C2	3.93	2.62	0.67	DS	Behaviour of the Staff of the Post Office: Giving explanation to the Queries	B12	3.95	2.86	0.72	DS
Counter Services: Facility of separate counter for Senior Citizens	C3	3.99	1.96	0.49	DS	Behaviour of the Staff of the Post Office: Following rules and regulations	B13	3.97	3.05	0.77	DS
Counter Services: Functioning of all the service counters	C4	3.61	2.80	0.78	DS	Behaviour of the Staff of the Post Office: Post-master guides to the staff	B14	3.70	2.87	0.78	DS
Counter Services: Availability of General stationary	C5	3.90	2.56	0.66	DS	Behaviour of the Staff of the Post Office: Post-master controls the staff	B15	3.49	2.85	0.82	DS
Counter Services: Availability of Transaction related stationary	C6	3.93	3.20	0.82	DS	Complaint Solving: Post office listens to complain	S1	3.90	2.78	0.71	DS
Counter Services: Availability of Office equipment like computers, scanner, printer, photocopier etc.	C7	3.66	2.81	0.77	DS	Complaint Solving: Prompt response to complaints	S2	3.94	2.65	0.67	DS
Counter Services: Changes in working as per requirements	C8	3.80	2.85	0.75	DS	Complaint Solving: Availability of 'Complaint Book'	S3	3.99	2.66	0.67	DS
Access of Information: Provision for 'Customer help desk' At Post Offices	I1	3.81	2.33	0.61	DS	Complaint Solving: Display of information for Registration of complaints	S4	3.76	2.46	0.65	DS
Access of Information: Information Sign Boards at Post offices	I2	4.03	2.93	0.73	DS	Complaint Solving: Simple procedure for Registration of complaints	S5	3.87	2.44	0.63	DS
Access of Information: Regular updates of information on the Sign Boards	I3	4.02	2.87	0.71	DS	Complaint Solving: Solving of Complaints	S6	3.68	2.42	0.66	DS
Access of Information: Obtaining Information Promptly	I4	4.08	2.65	0.65	DS	Complaint solving: Resolving Grievances	S7	3.99	2.62	0.66	DS

**Note: DE= Delighted; S= Satisfied and DS= Dissatisfied**

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## Implementation of Vendor Manage Inventory in Public Procurement Environment-A case of Indian Railway

Atul Gupta, Gyan Prakash, Jayrajsinh Jadeja

### Abstract

There is ever increase in emphasis on improving the availability of spares for repair maintenance and operation of Indian Railways and also minimize the inventory and inventory carrying cost. Generally there is a misconception and feeling on railway that the level of inventory and availability of spares moves in tandem.

Author studied the best practices of some of the successful best managed private organization in the area of Supply Chain Management and related literature. Author then proposed system which can be best suited to public procurement environment.

### Introduction :

Indian Railways (IR) is Government of India organization to provide rail transport service in India. It is the largest railway network in the world in the area of passenger transport and third largest in the world in the area of freight services. It is having a route km 66000 and more than 7100 railway station across India. The operations of Indian Railways is divided in to 17 Zonal Railways.

Indian Railway also has 8 production units which caters to part requirement of locos, coaches, wheels and axles. An idea of the assets of Indian Railway can be obtained from Table 1. The IR is required to do Maintenance Repair and operations of these assets.

SN	Plant & Equipment	Unit	2011-12	2012-13
1	Capital-at-charge	In crore	1,61,447,97#	1,83,488.08@
2	Total investment	“	2,57,958.35	2,89,374.87
3	Route length	Kms	64,600	65,436
4	Locomotives	Nos.	9,549	9,956
5	Passenger service vehicle	“	55,347*	57,256
6	Other coaching vehicles	“	6,567*	6,614
7	Wagons	“	2,39,316*	2,44,731
8	Railway station	“	7,146	7,172

**Table-1.Assets Indian Railway**  
(source Indian Railway year book 2013)

Material management department on Indian Railway carry out the material and supply chain management functions for Indian Railway. There are 262 stocking warehouses over the Indian Railway network for uninterrupted supply of railway material and stores. Over 1.8 lakhs material components of various descriptions are stocked in this depot. An idea about the size and the key performance indicator of material management functions on Indian Railways can be obtained from

Year	Material Purchase		Total Issues		Inventory Balanced on 31st March Rs.Crs				Turn Over Ratio		Surplus & over stock Rs.Crs	Employee	
	Indigenous Rs. Crs.	Total Rs. Crs.	Without Fuel	With Fuel	In bound (a)	Work in Progress	Misc. Advance	Total	With Fuel	Without Fuel		Officers	Total
2004-05	12621	12967	N/A	N/A	1017	333	2507	3857	N/A	N/A	N/A	737	37282
2005-06	14905	15326	N/A	N/A	1315	401	2763	4479	N/A	N/A	N/A	810	30698
2006-07	18057	18651	N/A	N/A	1669	636	2961	5266	N/A	N/A	N/A	N/A	N/A
2007-08	21352	21982	N/A	N/A	2109	764	3306	6179	N/A	N/A	N/A	N/A	N/A
2008-09	26682	27495	N/A	N/A	2757	800	3556	7113	N/A	N/A	N/A	N/A	N/A
2009-10	26726	27876	N/A	N/A	2761	906	4359	8026	N/A	N/A	49	831	28831
2010-11	28017	29099	16029	24188	2561	795	4874	8230	11%	13%	41	874	28224
2011-12	30176	31359	17081	26518	2755	906	4586	8247	10%	14%	55	902	28313
2012-13	33780	36027	19106	30511	2592	1094	4564	8250	9%	13%	89	883	26661
2013-14	40258	42447	20567	36847	2624	1272	4509	8405	7%	13%	62	926	26632

Table-2 Material Management functions on Indian Railway at a glance (sources collection of data by author).



Like any other conventional organization Indian Railway faces the problem of high inventory and high stock out situations. Some of the modern successful organizations are able to minimize the inventory and improve availability of material following concept of JIT and Vendor Managed Inventory.

#### **Literature review-**

**1. Vendor Mange Inventory (VMI)** As per (Disney S M , Towill D R , 2003 ) moving to VMI scenario alters the fundamental structure of the supply chain ordering. The objective of VMI according (C, 2006) is to ensure higher customer service at lower inventory cost. Supplier is able to reduce his production inventory and transportation cost, build a better collaboration between all the partners, speeding up of the supply chain and reduce the Bullwhif effect. The overall implication is the

transition from classic push supplier-customer relationship to a pull relationship.

The issues which required due attention before implementing the VMI system are

1. Where is the inventory located?
2. How is the distribution of products or raw materials accomplished?
3. How is the inventory level monitored and how visible is the customer's demand and demand history to the vendor?
4. What role do information systems play in the facilitation of the VMI system?
5. Who and how makes the inventory replenishment decisions?
6. Who owns the inventory?

Evaluation of frame work of VMI- the VMI can be evaluated on following spectrum-

<b>Parameter</b>	<b>Spectrum</b>
Inventory location	Vendor or third party <span style="float: right;">centralized</span> <div style="text-align: center;"> </div> <span style="float: right;">distributed</span>
Inventory level monitoring and demand visibility	Scheduled visits reports and forecasts <span style="float: right;">real time</span> <div style="text-align: center;"> </div>
Role of information systems	Manual work instead of information in importatn role <span style="float: right;">Information system in importatn ride</span> <div style="text-align: center;"> </div>
Inventory ownership	Vendor owned <span style="float: right;">sharing of inventory risks</span> <div style="text-align: center;"> </div> <span style="float: right;">customer owned inventory</span>
Replenishment decisions	Vendor makes replenishment decisions <span style="float: right;">Vendor makes replenishment proposals</span> <div style="text-align: center;"> </div>
Distribution model	Vendor <span style="float: right;">outsourced</span> <div style="text-align: center;"> </div>

**Figure-1 (Sarpola, Evaluation framework for VMI system, 2007)**

## **2. Public Procurement (PP)**

Public procurement means purchases made by organizations having government equity of more than 51%. (Uyarra and Flanagan, 2010). Developed economies spend around 25 % of their GDP on public procurement. (Afonso et al., 2005). Countries like India (emerging economies) spend around 30% of the GDP i.e. approximately 18 lakh crore per annum on public procurement. The basic objectives of public procurement is delivering government policy objective of developing well educated tolerant society. Research on public procurement focuses on its influences on economic activity (Laffont and Tirole, 1991; Tigner, 1991; Vagstad, 1995; Brulhart and Trionfetti, 2004) as well as the underlying processes involved in the procurement (Bovaird, 2006; Gelderman *et al.*, 2006).

## **3. Purchasing must become Supply Chain Management (SCM)-**

There is a classic paper written by Peter Kraljic in September 1983 of Harvard Business Review. It is comprehensive approach for determining correct purchase strategy in different environment. So as to minimize supply risk. Kraljic gave strategic importance to purchasing function and its impact on profitability. His approach include diagnosing the purchasing function on two dimension i.e. profit impact and supply risk. The result is a matrix which classify the item in four categories bottleneck, non-critical, leverage and strategic items.

## **4. Just-in-Time, MRP, and Lean Supply Chains- (Vrat, 2014)**

In chapter no. 9 has presented a basic philosophy and approach to JIT and pull system of material planning. The environment for JIT assumes stable demands and lead time, supplier involvement/partnership, stream line and uninterrupted material flow, process flexibility and vendor involvement etc. there is no additional transportation cost for frequent delivery and over capacity of supplier. Key requirement for successful JIT system is supplier rate to match the consumption rate and supply rate is pull driven.

## **5. Bullwhip Effect-**

When number of stages in bringing the product to

the company gets involved, due to demand uncertainty there is a tendency for fluctuation in inventory. J. Forrester wrote a article in Harvard Business Review in 1958 regarding system dynamic s which is known as Forrester effect now popularly known as 'Bullwhip effect'. The information gets distorted as it moves along the network and results in excess or shortage of inventory. (Kachru, 2009)**Gape in literature-** Existing literature in developed in the context of large well managed private organizations. Management practices in public procurement organization are entirely different and more complex. In the public procurement organization objectives are beside value for money (VFM), concept of 6R (right quality, quantity, prize, source, place and right time), there are other major consideration such as constitutional provision of article 14 & 19 (right of freedom and equality), transparency multiplicity of goal, public accountability towards agency such as parliament, central vigilance commission (CVC), central bureau of Investigation (CBI), Comptroller and Auditor general of India (CAGI), Right to Information (RTI) etc. There is transactional approach where each transaction is evaluated independently instead of overall integrated approach.

The available literature is not applicable to public procurement and related entity. The environment and policies are quite different for example in private organization calling the bid and procuring at lowest acceptable prize from other than available bid is normal. Negotiating with other than lowest acceptable firm is permitted. The evaluation is done on overall basis and the organization can sacrifice the interest in one case in the larger interest of overall gain to the organization. Whereas in the public procurement each transaction is evaluated independently, the status of bidders on the date of tender opening is sacrosanct. Even if the offer becomes higher afterwards on account of foreign exchange variations or statutory variations.

**Bullwhip Effect:-** The effect of Bullwhip effect is clearly visible on the inventory management system of Indian Railway. The psychology of the managers on Indian Railways is that the inventory is the panacea for the problem of shortage or out of stock. Especially for critical item in case if some shortage is felt then the reaction is multifold such as

enhancing the anticipated annual consumption (AAC), emergency purchase etc. As a result there is high inventory for some items and shortages for others. There is a gap between the money value of AAC of all the items and the available budget provision for consumption of these items. AAC value of all the items is 30-40% higher than the budget available.

Finding and discussion:- Material Management department of IR is responsible for meeting. The needs of raw materials and a spares for maintenance, repair and operation of rolling stock and also the production of Loco, Coaches and Wagon. The Material Management function at a glance can be seen from **Table-2 Material Management functions on Indian Railway at a glance**

For effective supply chain management all fragment within the supply chain should have common objective for collaboration and create a transparent and visible demand pattern. Unpredictable and non transparent demand pattern create Bullwhif effect. Which leads to poor customer service high inventory and frequent stock outs.

VMI offers significant opportunities for reducing the Bullwhif effect in supply chain and enhanced customer satisfaction. It is defined by Chopra and Meindl (2004) as a continuous replenishment programme where the supplier is having the responsibility of all the decision of managing customer inventory. The information which need to be shared with supplier are inventory level, demand forecast, trend of consumption, production and delivery scheduled.

In Indian Railway the system is on the basis of annual procurement. The Quantity forecast is done more than 1 year in advance and purchase order is placed on supplier which is having specified quantity and specified delivery period. If the supplier delays the delivery then he is liable to pay a pre estimated damaged @ of 2% per month of the value of delayed supply. Most of the purchases are made from the approved supplier. The list of approved supplier is common for all the 17<sup>th</sup> Zonal Railways and 8 production units. The supply order is placed on the firms by issue of annual tender. The winning bidder/bidders are placed the supply order

for one year requirement. Railway does not enter into long term procurement contract with these firms. However at the macro level these suppliers are repetitively getting order from 17<sup>th</sup> Zonal Railways and 8 production railways. Therefore it can be said that these firms are having long term business relationship with the Indian Railways for supply of railway material. A significant portion of the business of these firms is contributed by railway. Railway is therefore providing them continuous business opportunity on long term basis but not availing the advantages of long term contracts.

In this system normally a supplier gets order from several consignees and he is governed by the ordered quantity and delivery period. Scheduling and dispatching of the material to the consignee is done by the suppliers as per the delivery period specify in the contract. This results into the excess stock in some places and shortages at other places. In contract in VMI system the supplier will have the snap shot of requirements of all the consignee and therefore can plan dispatching and scheduling optimally. This is very useful if supplier had scares production capacity. He can choose which delivery can be delayed (Kaipia et al 2002) without cause in out of stock and loss of production. Railway on the other hand will experience benefit from decrease in administration cost. The huge man power and infrastructure of railways is tied up and engaged to monitor the progress of the supply orders. VMI partnership results in to better availability and reduced inventory, reduced stock out by increasing inventory visibility (Angulo et al 2004).

Working towards VMI is a company wide effort to stream line business process with supporting technology. For its success all the fragments of supply chain should have common objective. Normally the agreement with VMI partner shall include parameters such as maximum and minimum inventory level, minimum delivery quantity and transport schedules. Information sharing arrangements, consumption pattern, demand pattern and forecast accuracy. A positive attitude among all the persons involved is a perquisite. It is important that the railway should have trust in supplier and allow him to scheduled the deliveries.

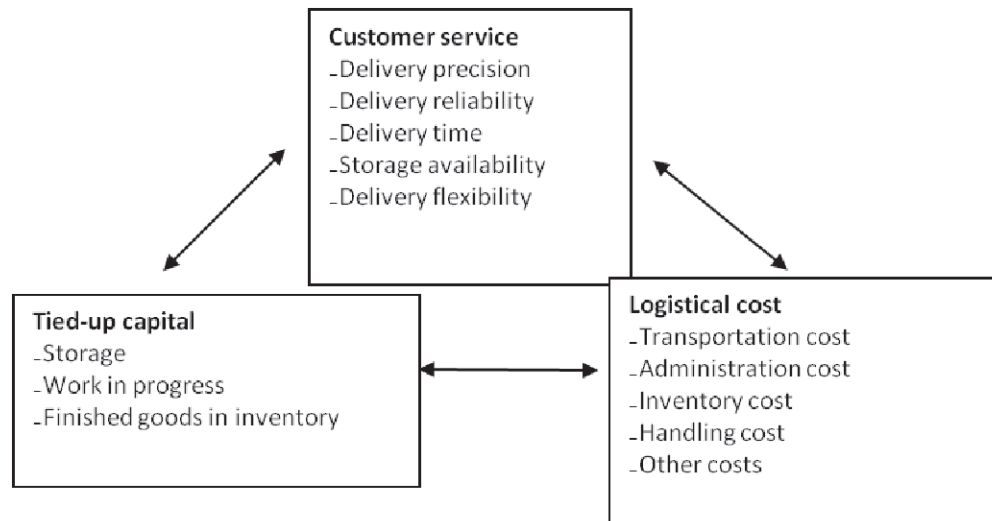
Low volume products have a larger potential for improvement then for high volume product s. because operation of high volume products are

already well polished. Further (Yang at el 2003) VMI is most effective for product with stable demand pattern.

### **Key performance indicator (KPI) in case of Vendor Managed Inventory (VMI)**

Traditionally performance measurements are

conceptualized in terms of standalone performance measure themes. However, in supply chain context various performance measure themes have cascading effects. The interactive effects of performance measures are depicted in Figure 3. Therefore system level view is required for development of true performance measures.



**Figure 2 Key Performance Indicator (Adapted from Lumsden & Mirzabeiki, 2008)**

At National Academy of Indian Railway a 5 day workshop was conducted. It was attended by procurement experts and policy makers of the Indian Railway. This workshop discussed Key Performance Indicators (KPIs), their measurement systems and associated impacts on the underlying Supply Chain. Issues which emerged during the discussion are elaborated in table

**Table: KPI and Associated Performance Measures**

SN	Issues	Performance Measure	Impacts on Supply Chains
1	High lead time	Cycle time in days	Bullwhip effect, In correct forces, Anxiety to customer
2	High Inventory	Inventory terms	Locked up capital, Inventory carrying cost, Lack of agility, Obsolescence, Surplus
3	Stock out	Per cent stock out	Stock out cost, Loss of out turn, Knee jerk reaction, Loss of confidence
4	Responsiveness	Time taken to respond to change in environment or requirement	Inventory built up, Lack of agility, Redundancy in system

### **Logistics cost-**

**Transportation costs:-** As per Gunasekaran, Patel & Tirtiroglu (2001) single largest component of logistic is transportation cost. High fill rate shall required regular and frequent transport. It does not necessarily means higher transportation cost because supplier will experience smoother demand signal. Supplier is allowed to coordinate the replenishment and efficient route planning instead of responding to customers orders.

Administration costs:- This includes the cost of personnel involved in monitoring receipt and acceptance of material . The administration cost comes down substantially as supplier will ensuring the availability. In traditional order there is lot of duplication work at railways and suppliers end.

Inventory cost- cost associated with capital block, surplus and obsolesce . this comes down significantly.



**Handling cost** - Cost associate with handling of inventory. Since the inventory goes down handling cost also goes down.

**Other cost**- This cost is related with material requirement planning and consumption. Because of transparency and visibility and efficient product scheduling this cost come down. Vendor is having advantage of assigning the product and product mix, better react to dynamic changes in requirement and minimize Bullwhif effect.

**Customer service** – the certain level of customer service involved specific cost. Normally it is felt that increase level of service will result in to higher service cost. However in VMI system the supplier will be able to optimize the delivery scheduled to different consignee within his production capacity it

is expected that there will be lesser occupancy of supplies after delivery scheduled and therefore the cost will come down.

Customer service can be broken into delivery precision, delivery reliability, delivery time, storage availability and delivery flexibility. All these factors will have positive impact because of more predictability , visibility of inventory consumption and demand. The level of customer service goes up and cost comes down as shown in fig.3.

**Tied-up-capital** - Is associated with the capital block in the inventory. Because of VMI system the inbound inventory, working progress inventory and finished good inventory is expected to come down because of predictability, visibility, flexibility of delivery scheduled.

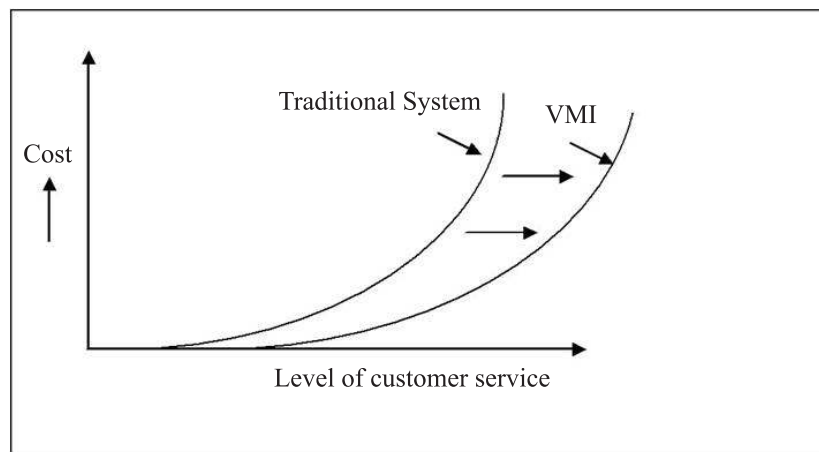


Fig.3 Cost Customer Service Relationship

### **Theoretical Framework for implementation of VMI on Indian Railways:-**

#### **Assessing Existing System**

Indian Railway is having a very complex and disintegrated system of procurement and material management. The entire Indian Railways is divided in to Zonal Railways, Production units, workshop and filed units. Entire planning process commence with preparation of budget. In the month of November budget estimate is prepared for following financial year. In this budget activity are planned targets are finalized and the resources are allocated which include separate allocation for procurement of material.

Controllor of Stores (COS) who is The head of the material management department forecast the annual anticipated consumption (AAC) of various stock items in-consultancies with consuming and

finance department. While forecasting the AAC the past trend of consumption and targets are kept in mind. The procurement of stock item is made on annual procurement basis. For uniform distribution of work load throughout the year the procurement calendar of all the stock items is decided and it is generally fixed.

Normally the budget allocated for the procurement of material should match with the value of AAC of all the stock items. It is seen that in actual case the AAC value of all the stock items put together in nearly 30 to 40% higher than the budget provision for the procurement of these items. This distortion is the net result of Bullwhif effect. This anomaly creates operational difficulty in maintaining the supply chain. The creates situation of over stock of some items and out of stock situation of some other items. Trend of inventory availability and over stock position can be seen from **table-4**



Availability of Items

Safety				Overall			Value of Inv. Balance Crs.	Surplus & over stock Rs.Crs
Year	No. of Items available	No. of Items Total	% availability	No. of Items available	No. of Items Total	% availability	In bound (a)	
2003-04	7155	7517	95.18	106695	114974	92.80		N/A
2004-05	5406	5706	94.74	69254	73183	94.63	1017	N/A
2005-06	5318	5548	95.85	66100	70361	93.94	1315	N/A
2006-07	5337	5510	96.86	82326	86277	95.42	1669	N/A
2007-08	9587	9780	98.03	103214	108325	95.28	2109	N/A
2008-09	8898	9018	98.67	101212	104681	96.69	2757	N/A
2009-10	8499	8573	99.14	102764	106286	96.69	2761	49
2010-11	8208	8303	98.78	99164	102693	96.56	2561	41
2011-12	7983	8167	97.75	100817	104943	96.07	2755	55
2012-13	9617	9707	99.07	102817	107493	95.65	2592	89
2013-14	9768	9838	99.29	99977	104750	95.44	2624	62
2014-15	9663	9737	99.24	98119	103142	95.13	N/A	N/A

**Table-4** Availability of stock item, Inventory balance and over stock source- Data Collected by author.

From this table it can be seen that on hand there is high stock out situation on the other hand there are many items which are surplus and overstock. The average physical inventory in 3 month throughout the year.

Controller of stores is responsible for material planning, procurement, inventory management and logistics. The bulk of the procurement to the extent of 90% of the value is made through approved sources on annual procurement basis by issuing tender once in a year by all Zonal Railways and 8 production units. The approval of vendor is done by centralized agency normally Research Design & Standard Organisation (RDSO), Lucknow. This approved list is common for all the Zonal Railways and production units to the large extent. These approved sources are required to offer their bid in the tender issued by COS. This tender are having a specified due date of tender opening. The entire procurement process is done through e procurement system. The high value tenders are evaluated by

tender committee which comprises of the officers from Material Management department, Consuming and Finance department. Contract is awarded to winning bidder/bidders . In the similar manner the procurement is finalized by all the 17 Zonal Railways and 8 production units. The supplier is governed by the condition of the contract which includes the quantity delivery scheduled, pre inspection of the consignment at the site of the supplier by pre-inspecting agency prior to dispatch. Payment terms are overated with inspection and dispatch. There is heavy penalty @2% per month or part their-of the value of delayed supply incase firm is not able to supply up to the terminal date of delivery specified in the contract. The supplier therefore governed by the contract has to complete delivery before terminal delivery date. This leads to a situation of sudden delivery of

consignment in some case and shortage of material in other case. The theoretical frame work of the entire procurement process is given in **figure 4**

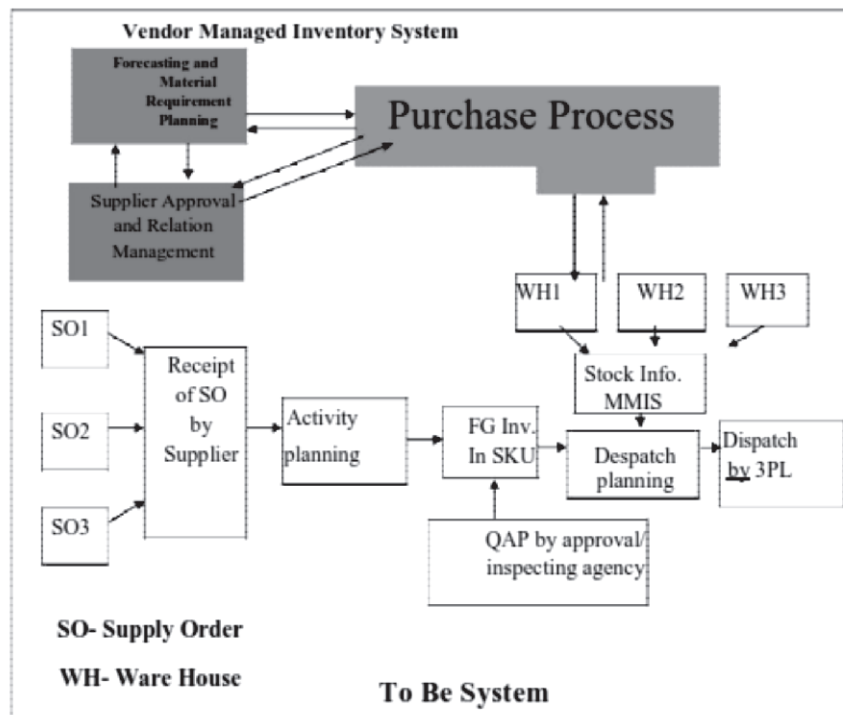


Figure 5 Proposed VMI System on Indian Railways  
Source: Developed by researcher

**Arranging transport on 3PL system-** in the present system the supplier is entrusted to manufacture and supply of the material. On normal case 5% of the contract value is spent in arranging transport which supplier engages with a small transport company on case to case basis. Arranging

this logistic on 3PL basis shall gel well with VMI system for ensuring flexibility and delivery scheduled. It will also result in saving of transport to the extent of 30% due to better route planning and scheduling. The schematic diagram of 3PL system is given in figure 6.

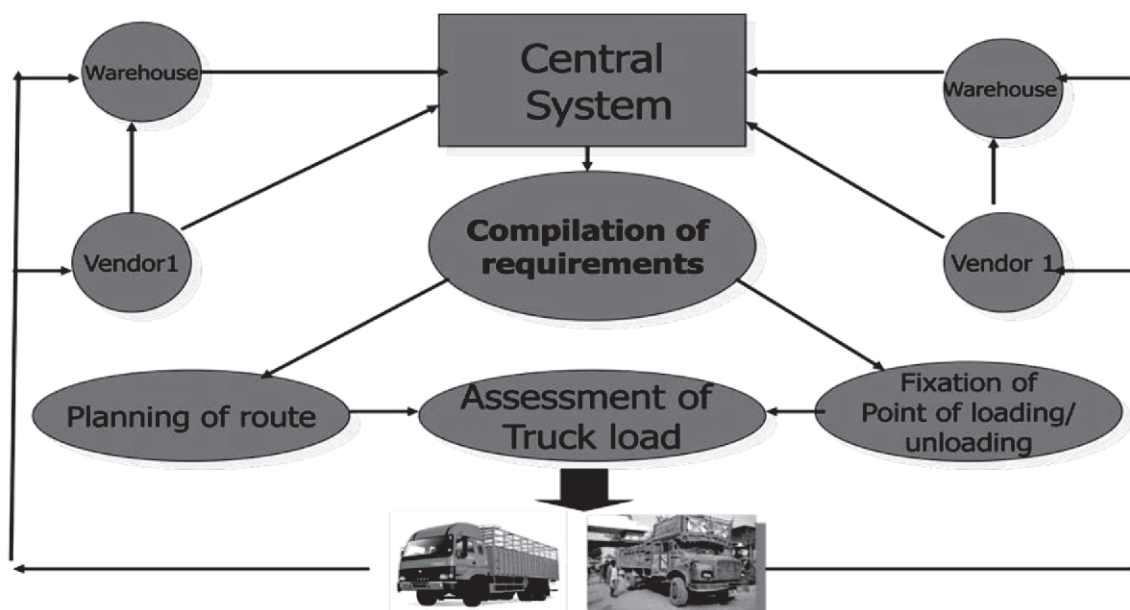


Figure-6 Implementing 3PL system on IR

Conclusion- Normally it is felt that in the public procurement environment each activity is evaluated independently and therefore required to be handled on individual transaction basis. Where as for effective supply chain management the integration of all the fragments of supply chain is pre requisite. The proposed system can be integrated in public procurement environment with minor changes in the contract condition. The system shall have positive impact on reduction of inventory level, improving the customer service and reducing the Bullwhif effect to a large extent. It is very cost effective solutions which can be implanted in Public Procurement Environment.

The core idea is to carry out the business process orientation to take benefit of Information Technology and e-procurement and converting the push process of supply chain to pull process. In renovated business model, supplier takes the whole responsibility for managing the minimum and maximum inventory at all its consignee. In the renewed model, all process are supported by Information Technology. Fundamental structural changes are required to fully utilize the potential benefit. Role of Information Technology and its strategic utilization is very crucial.

#### **Potential implementation problem**

1. A new way of thinking and human related issues
2. Different organizations and culture shall have to unite and transform to support Supply Chain.
3. Sharing of information require high level of trust.

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# Working Capital Management : A case study of Adani Power Limited.

Jayesh Pandya, Himanshu Nagarale

## Abstract

Working capital management refers to management of current assets and current liabilities in a way that can ensure survival of a business. All management decisions and actions, affects working capital management. Over or under investment in working capital leads to negative consequences. A corporate entity if fails to meet its short term obligations may become bankrupt. The firm's short term financial strength is the result of efficient working capital management. In the present study, an attempt is made to analyse working capital management and its impact on profitability of Adani Power Limited during the selected period of study using technique of ratio analysis and other appropriate statistical tools. The company is one of the fastest growing organisations in power sector in India.

## Introduction

Finance plays very important role in success or failure of a business. Financial Management thus becomes important for every business. In Financial Management, capital is required either for its establishment or to carry out day to day operations. Funds required for daily operations are known as Working Capital. It refers to that part of total capital, which is available and used for carrying on the routine business operations.

Working capital is an essential input for smooth functioning of any business irrespective of its size and nature, to carry out its operational activities and achieving its goal. Effective and Efficient utilization of working capital resources will make sure not only liquidity but also enhance profitability, which reflects in terms of growth and development of an Organization. Particularly, in Power Sector companies which are heavy capital intensive industry, the efficient management of working capital is essential and important aspect for survival in such a competitive world.

In present study, an attempt has been made to analyze working capital management and relation between liquidity and profitability of Adani Power Limited during the period starting from 2010-11 to 2015-16.

## Profile of Company

ADANI POWER LTD. (APL) is a global conglomerate with a presence in multiple businesses across the globe has entered into the power sector to make 'power full' India. Along with thermal power generation, Adani power has made a paradigm shift by venturing into solar power generation in Gujarat. Adani Power Limited has commissioned the first supercritical 660 MW unit in India. Mundra is also the world's first supercritical technology based thermal power project to have received 'Clean Development Mechanism (CDM) Project' certification from United Nations Framework Convention on Climate Change (UNFCCC).

## Objectives of Study:

- To analyze working capital management of sample unit for the period under study.
- To analyse the components of working capital of sample unit for the period under study.
- To examine short term financial strength of sample company for the period under study.
- To measure the impact of working capital on the profitability of the sample company for the period under study.

## Methodology of Study

Adani Power Limited has been selected for the purpose of study as it represents almost 5% of India's thermal power generation capacity. Total thermal installed capacity of private sector in Northern Region is 16714 (in



MW) out of which 62.46 % contribution made by Adani Power Limited as per report provided by Central Electricity Authority on 31.03.2016..

For the purpose of study, period of six years starting from 2010-11 to 2015-16 has been selected. Secondary data is collected from annual reports of Sample Company and all other required information collected from the website of the company as well as from various journals and magazines. Accounting techniques like ratio analysis, comparative analysis and trend analysis as well as statistical techniques like mean, standard deviation, co-efficient of

variations and multiple correlation matrixes have been used.

### Analysis & Interpretation

#### Working Capital Analysis:

The analysis of working capital helps to measure the short term solvency of the company. Table No. 1 as given follow exhibits the Current assets, Liquid assets, Current Liabilities, the net working capital and increase in the net working capital on year to year basis for the period of six years under study.

**Table No. 1**  
**Statement Showing Net working capital position of APL during the period of study.**  
**(Rs. in Crores)**

Year	Current Assets	Liquid Assets	Current Liabilities	Net Working Capital	Increase/Decrease
2010-11	1863.23	1586.9	3402.31	-1539.08	-
2011-12	5278.97	4462.55	10714.13	-5435.16	-3896.08
2012-13	4199.13	2935.88	11496.79	-7297.66	-1862.50
2013-14	4084.13	3182.65	12740.3	-8656.17	-1358.51
2014-15	5342.83	4360.79	13174.6	-7831.77	824.40
2015-16	7612.06	6781.2	17886.11	-10274.05	-2442.28
Mean	4730.06	3885.00	11569.04	-6838.98	
Growth Rate (times)	4.08	4.27	5.26	6.68	
S.D.	1892.12	1767.67	4717.77	3044.92	
C.V. (%)	40.00	45.50	40.78	-44.52	

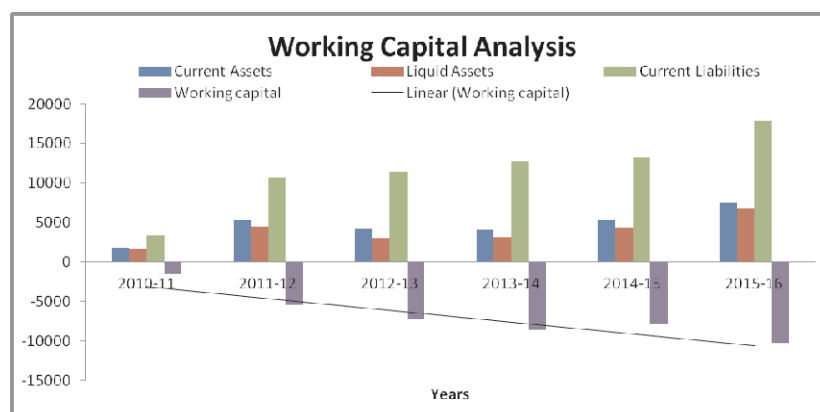
**(Source: Annual reports of Adani Power Limited)**

From the above table it is evident, there is an increase in the current assets with a growth rate of 4.08 times, increase in liquid assets with a growth rate of 4.27 times and increase in current liabilities with a growth rate of 5.26 times as compared to base year 2010-11 with 2015-16. The standard deviation shows volatility in the above data, while coefficient of variance in above data seems to at consistent level

because variability is above 40% in current assets, liquid assets and current liabilities. During the period of the study, working capital figures are negative. The standard deviation and coefficient of variation is very high in case of current liabilities and working capital but in case of working capital it shows negative coefficient of variation

### G.1

#### Working Capital Position of the Sample Company During the period under study



### Ratio analysis and trend analysis:

**Ratio Analysis** is one of the tool for analyzing Financial Statement and which will be helpful for obtaining a quick indication regarding financial performance of the company. Ratio analysis is used to evaluate different aspects of a company's operating and financial performance such as its efficiency, liquidity, profitability and solvency. Under this study different ratios like Current ratio, Quick ratio, Absolute quick ratio, Debtor's turnover ratio, Creditor's turnover ratio, Debt collection and Credit payment period and Return on capital employed are used for the purpose of achieving objectives of the study.

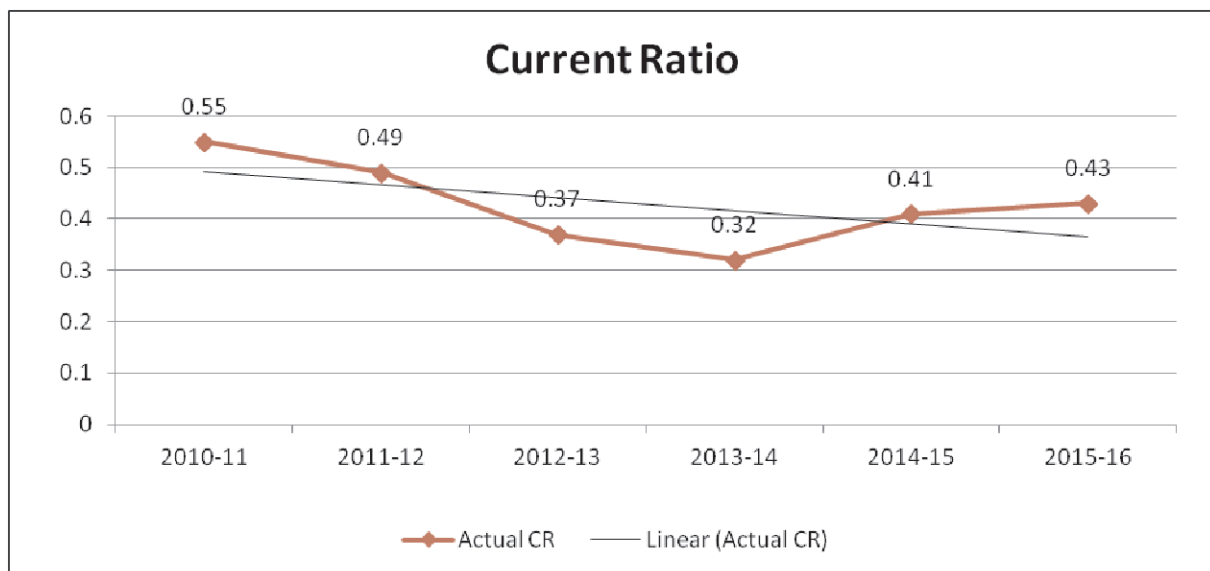
**Current Ratio:** The General liquidity position of company can be measured with the help of Current Ratio. Higher the current ratio higher is the liquidity. Too high a current ratio indicates higher investment in low profitable current assets. The current ratio is calculated as follows,

$$\text{Current Ratio (CR)} = \frac{\text{Current assets}}{\text{Current Liabilities}}$$

As evident from appendix- I, the overall average current ratio during the period of study was 0.43:1 which is quite below the standard norm of 2:1. The ratio shows an overall decreasing trend during the entire period of study.

### G.2

#### Current Ratio of the sample company during the period of study



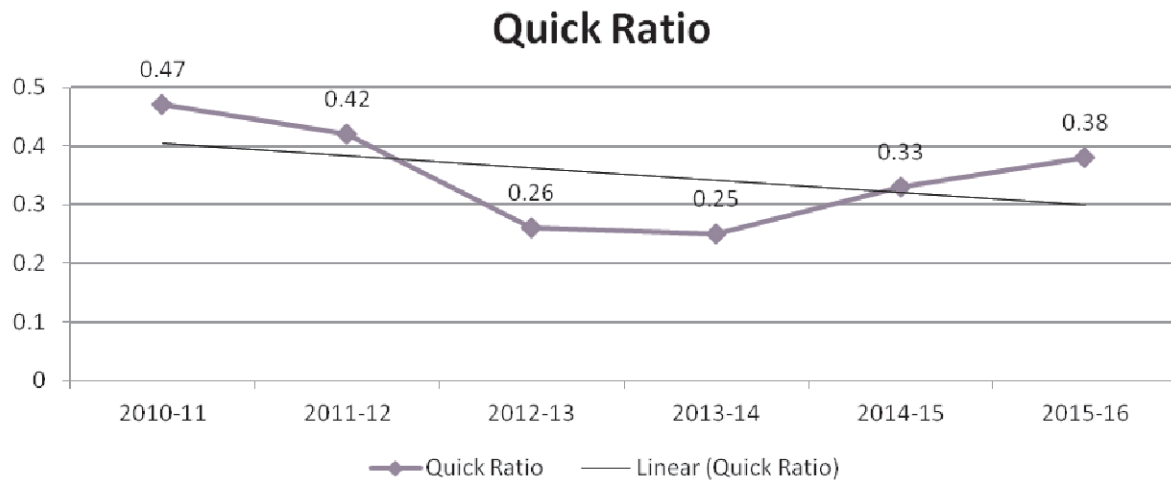
The current ratio was 0.55:1 in 2010-11 which decreased to 0.32:1 in 2013-14 and thereafter it gradually increased to 0.43:1 in the year 2015-16. The decrease of 10.91% in the year 2011-12 was mainly due to steep increase in short term borrowings by 212.24% as compared to immediate previous year. In the year 2012-13, a steep decline of 24.49% was registered because of 379.19% rise in the value of trade payables and 30.68% increase in other current liabilities over its preceding year. The current ratio of 0.32:1 in the year 2013-14 was lowest during the entire period of study. The lowest ratio was due to steep decline in inventories and cash and cash equivalents by 31.01% and 72.22% respectively over its previous year. The gradual increase in the current ratio in last 2 years of study

was mainly due to increase in trade receivables and marginal decrease in inventory. The overall low current ratio of the sample company indicates poor liquidity position and inability of the company to meet its short term obligations.

**Quick Ratio:** The quick ratio is most rigorous test of liquidity than current ratio. It measures efficiency of the management to pay its current liabilities as and when they become due. It also measures the quality of current assets held by company. The formula for calculating current ratio is as follows,

$$\text{Quick Ratio (QR)} = \frac{\text{Quick assets}}{\text{Current Liabilities}} \quad [\text{Quick Assets} = \text{Current Assets} \text{ minus Inventories}]$$

G.3  
Quick Ratio of the sample company during the period of study



The quick ratio was 0.47:1 in 2010-11 which decreased to 0.38:1 in 2015-16. The decrease of 10.63% in the year 2011-12 was mainly due to steep increase in short term borrowings, trade payable and other current liabilities at 212.24%, 55.39 % and 250.07% respectively over its previous year. In the year 2012-13, a steep decline of 38.10% was registered because of 4.79 times and 1.30 times rise in the value of trade payable and other current liabilities over its preceeding year. The quick ratio of 0.25:1 in the year 2013-14 was lowest during the entire period of study. The lowest ratio was due to steep decline in value of short term loans and advances by 39.48% over its previous year. The gradual increase in the quick ratio in last 2 years of study was mainly due to increase in trade receivable, short term loans and advances with marginal decrease in trade payable. The overall low quick ratio of Sample Company indicates poor short term solvency and inability to pay its current liabilities immediately.

#### Absolute Liquid Ratio:

The Absolute Liquid Ratio is more conservative approach to measure the liquidity position of the company as compared to current ratio and quick ratio. This ratio shows relationship between cash, marketable securities and current liability of the company. A too high ratio indicates excess investments in liquid assets.

The formula for calculating current ratio is as follows,

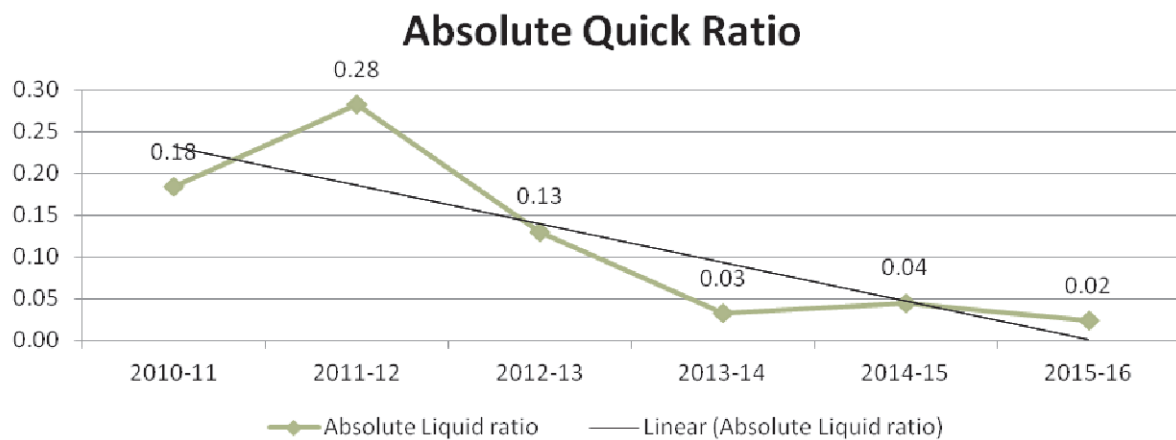
$$\text{Absolute Quick Ratio (AQR)} = \frac{\text{Absolute liquid assets}}{\text{Current liabilities}}$$

#### [Absolute Liquid Assets = Cash and cash equivalent plus current Investments]

As evident from appendix- I, the overall average absolute liquid ratio is 0.11:1 and it is quite below as standard norm of 0.50:1. This ratio shows an overall declining trend during the entire period of study.

The Absolute quick ratio was 0.18:1 in 2010-11 and reached to very low level of 0.02:1 in the year 2015-16. The increase of 55.56% in the year 2011-12 mainly due to sharp rise in value of cash and cash equivalent by 383.86% as compared to immediate previous year. In the year 2012-13, a steep decline of 53.57% was registered because of 37.02% reduction in value of short term borrowings over its previous year. The Absolute Quick Ratio of 0.03:1 in the year 2013-14 was second lowest during period of study. The ratio was low because of steep decline in cash & cash equivalent by 72.22% and marginal increase of 19.61% in the value of short term borrowings as compared to immediate last year. The Absolute Quick Ratio of 0.04:1 in the year 2014-15 with increasing trend because of steep increase in value of current investments as compared to last year. The decrease of 50% in the year 2015-16 was mainly due to sharp rise of 119.89% in the value of short term borrowings over its previous year. It is also evident from appendix- I that in three out of six years the ratio remained below the overall average of absolute liquid ratio. Thus it can be inferred that absolute liquidity position of Sample Company is very poor as cash and near cash assets are not enough to pay immediate current liability of the sample company. Thus cushion available to creditors is very low.

G.4  
Absolute Quick Ratio of the sample company during the period of study



**Working capital turnover ratio:** The Working Capital Turnover Ratio indicates the efficiency of management with which the working capital is being used in the business. It also shows the extent to which working capital fund used by management of the business for doing business activities.

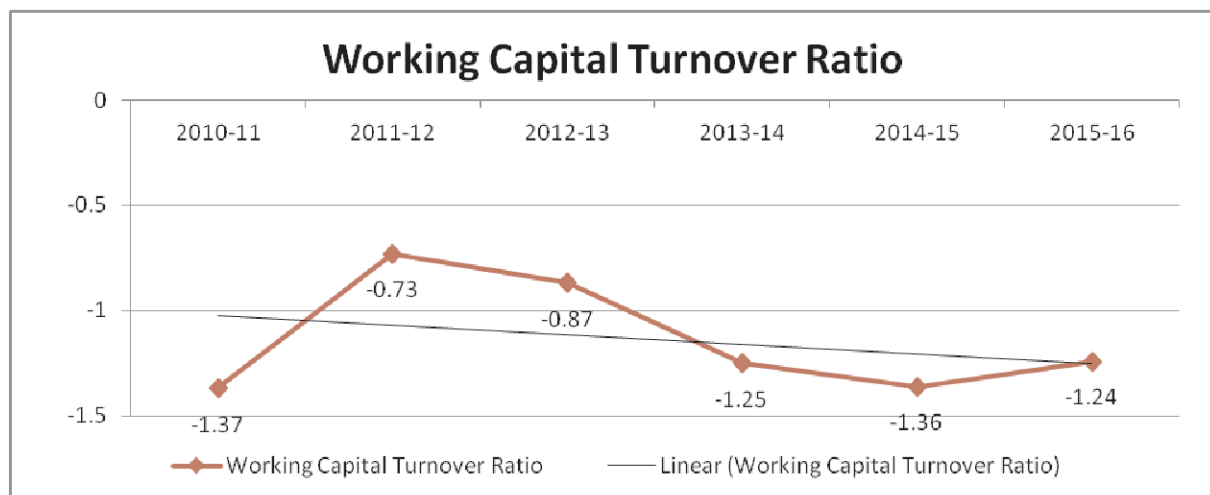
The formula for calculating current ratio is as follows,

$$\text{Working Capital Turnover Ratio (WCTR)} = \frac{\text{Total revenue}}{\text{Net Working Capital}}$$

[Net Working Capital = Current Assets minus Current Liabilities]

It is apparent from appendix-I, the overall average of working capital turnover ratio is -1.14:1 and it is negative during the entire period of study. This ratio shows declining trend over the period of study.

G.5  
Working Capital Turnover Ratio of the sample company during the period of study



The Working capital turnover ratio was -1.37:1 in 2010-11 which finally reached to -1.24:1 in the year 2015-16. The increase of 46.72% in the year 2011-12 was mainly due to steep increase in cash & cash equivalent by 383.86% as compared to immediate previous year. In the year 2012-13, a steep decline of 19.17% was registered because of sharp decline in value of cash & cash equivalent by 50.96% over its previous year. The decrease of 43.68% in the year 2013-14 was mainly because of steep fall in value of

Inventories and Cash & cash equivalent by 28.64% and 72.22% respectively along-with marginal increase in short term borrowings of 19.60% as compared to immediate last year. In the year 2014-15, ratio was -1.36:1 with steep decline of 8.8% and decline in the ratio was mainly because of steep increase of 42.52% in trade payable over its previous year. The gradual increase in working capital turnover ratio in 2015-16 was due to steep increase in trade receivable of 192.06% as



compared to immediate year. The triennial average of -1.28:1 during the second half (last three years) of the study period was higher as compared to -0.99:1 during the first half (first three years). This shows that there was acute shortage of working capital fund during the second half of the study period and it is not good for any business.

#### **Inventory turnover ratio:**

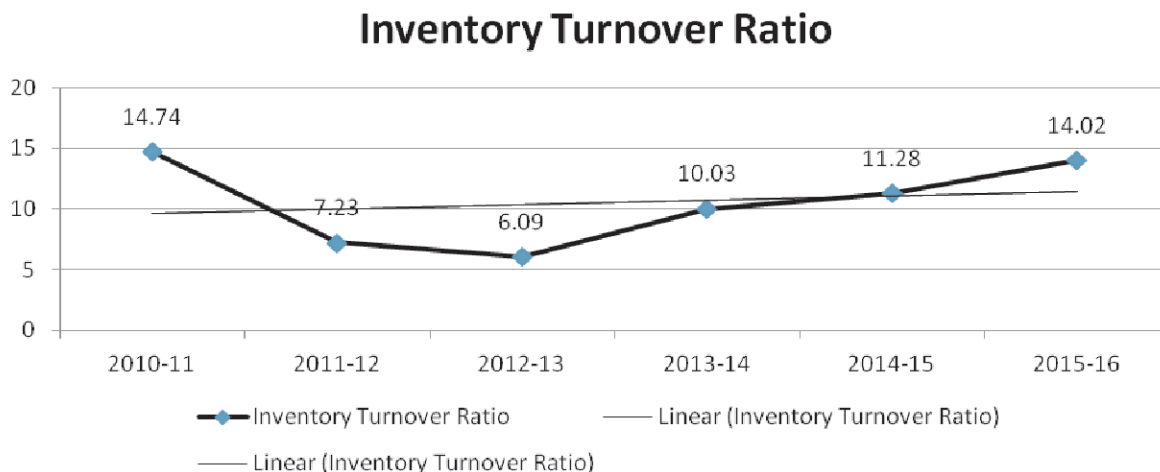
The Inventory Turnover ratio shows the speed with which inventory is converted into sales i.e. accounts

receivables and then into cash. It also indicates the extent to which investment made in inventory is efficient or not. The formula for calculating current ratio is as follows,

$$\text{Inventory Turnover Ratio (ITR)} = \frac{\text{Total revenue}}{\text{Average inventory}}$$

As evident from appendix- I, the overall average inventory turnover ratio is 10.56 times and the ratio shows an overall increasing trend during the period of study.

**G.6**  
**Inventory Turnover Ratio of the sample company during the period of study**



The Inventory Turnover ratio was 14.74 times in 2010-11 and reached to 14.02 times in the year 2015-16. The decrease of 50.95% in the year 2011-12 mainly due to sharp rise in inventory by 195.45% as compared to immediate previous year. In the year 2012-13, marginal decline of 15.77% was registered because of steep increase of 54.73% was registered in Inventory value over its previous year. The Inventory turnover ratio of 10.03 times in the year 2013-14 mainly because of 28.64% reduction was registered in value of inventory as compared to immediate previous year. The gradual increase in the Inventory turnover ratio in last 2 years of the study was mainly due to sustainable amount of investment made by the sample company in value of Inventory during the last 2 years. The triennial average of 11.77 times during the second half (last three years) of the study period was higher as compared to 9.35 times during the first half (first three years) of the period. This indicates proper financial planning and efficient management of

inventory adopted by the management of the sample unit during the second half of study period.

**Debtor's turnover ratio:** The Debtor's Turnover ratio indicates efficiency of management in conversion of account receivable into cash. It also shows company's efficiency in collecting its sales on credit. This ratio useful to measure the cost of indirect interest free loans provided by company to its client in form of account receivable.

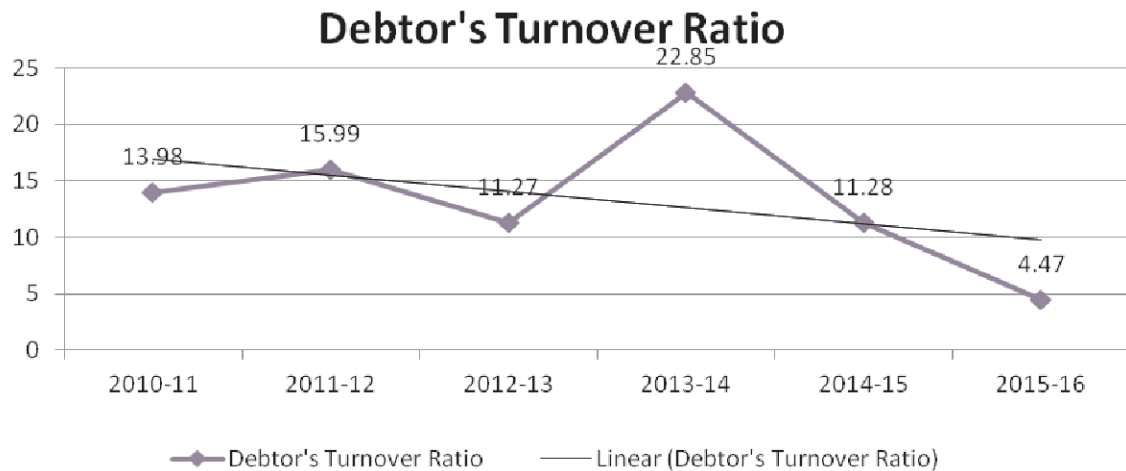
The formula for calculating current ratio is as follows,

$$\text{Debtor's Turnover Ratio (DTR)} = \frac{\text{Total revenue}}{\text{Average debtors}}$$

As evident from appendix- I, the overall average Debtor's turnover ratio is 13.31 times and the ratio shows overall declining trend during the period of study.

G.7

Debtor's Turnover Ratio of the sample company during the period of study



The Debtor's Turnover ratio was 13.98 times in 2010-11 and it reached to very low level of 4.47 times in the year 2015-16. The increase of 14.37% in the year 2011-12 mainly due to steep increase in value of total revenue by 87.58% as compared to immediate previous year. In the year 2012-13, marginal decline of 29.52% was registered because of steep increase of 60.28% was registered in total revenue of the sample company over its previous year. The Debtor's turnover ratio of 22.85 times in the year 2013-14 which was highest during the study and it was mainly because of 71.36% sharp rise was registered in total revenue and 59.20% steep decline in trade receivable of the sample company as compared to immediate previous year. The decrease of 50.63% in the year 2014-15 was mainly due steep increase in trade receivable by 426.36% as compared to immediate previous year. In the year 2015-16, the ratio of 4.47 times was lowest one during the study and it was due to steep increase in trade receivable by 192.06% over its previous year. The triennial average of 13.75 times during the first half (first three years) of the study period was higher as compared to 12.87 times during the second

half (last three years) of the period. This indicates stringent credit and collection policy in first half and liberal credit policy with longer collection period in second half of the study period was adopted by the management of sample unit.

**Creditors turnover ratio:**

The Creditor's turnover ratio indicates efficiency of management to pay off its average account payable balance during a year. In other words, it shows how many times a company can pay off its average account payable or creditors balance during the year. This ratio useful to measure the speed with which the payments are made to suppliers. High ratio is favorable and vice-versa as it indicates the creditworthiness of the company.

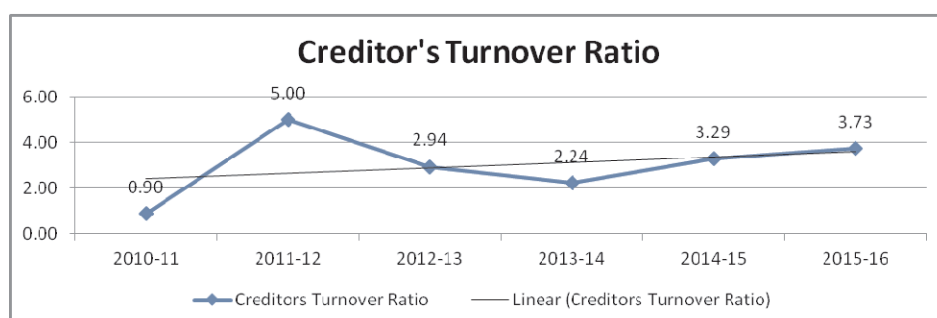
The formula for calculating current ratio is as follows,

$$\text{Creditors turnover ratio} = \frac{\text{Credit purchase}}{\text{Average creditors}}$$

As evident from appendix- I, the overall average Creditor's turnover ratio is 3.02 times which shows overall increasing trend during the period of the study.

G.8

Creditor's Turnover Ratio of the sample company during the period of study



The Creditor's Turnover ratio was 0.90 times in 2010-11 and it gradually increased to 3.73 times in the year 2015-16. The increase of 455.55% in the year 2011-12 mainly due to steep increase in value of credit purchase by 234.77% as compared to immediate previous year. In the year 2012-13, steep decline of 41.2% was registered because of steep increase of 379.20% was registered in trade payable of the sample company over its previous year. The Creditor's turnover ratio of 2.24 times in the year 2013-14 mainly because of 73.99% sharp rise was registered in value of average creditors of the sample company as compared to immediate previous year. The gradual increase in the creditor's turnover ratio in last 2 years of study was mainly due to increase in value of credit purchase by 86.60% and 26.80% respectively in 2014-15 and 2015-16 as compared to immediate previous year. The triennial average of 1.25 times during the second half (last three years) of the study period was higher as compared to 0.98 times during the first half (first three years) of the period. This indicates liberal credit policy followed by suppliers in second half of the study period and stringent credit policy adopted by suppliers during first half of the study period.

#### ***Debt collection period and Credit payment period:***

Debt collection period and Credit payment period

both reflects credit policy adopted by company with suppliers and customers. When company takes more credit period from their supplier and allowing shorter credit period to its customers, it shows efficiency of the management to utilize the funds free of cost for working capital management purposes. Generally, shorter debt collection period and longer credit payment period serve this purpose of working capital requirement.

The formula for calculating current ratio is as follows,

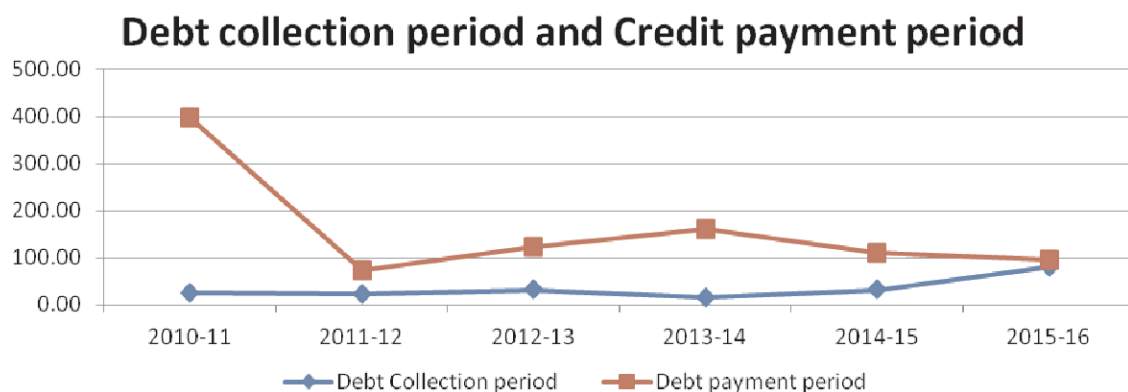
**Debt collection period = 360 days / debtors turnover ratio**

**Credit payment period = 360 days / Creditors turnover ratio**

As evident from appendix- II, debt collection period is shorter as compared to credit payment period during the entire period of the study. It shows that company is getting more time to pay off its supplier compared to time given by company to its customers for payment. The overall average debt collection period and average credit payment period of the company was 34.72 days and 159.93 days respectively.

#### **G.9**

**Debt collection and Credit payment period of the sample company during the period of study**



This appendix – II reveals, the overall average credit payment period was 4.60 times higher than the average debt collection period. It shows there is wide gap between Debt Collection Period and Credit Payment Period which reflects credit payment period was greater than debt collection period during the entire period of the study. In another way, Sample Company has ample time to

repay its liabilities and company is in a position to use advantage of this time gap for meeting its day to day operational activities.

#### ***Return on capital employed ratio:***

It shows efficiency of management with which capital has been utilised in business and also

measures profitability of company by expressing its operational profit. A higher ratio is favourable and vice-versa. The formula for calculating current ratio is as follows,

**Return on Capital Employed (ROCE) = Profit before interest and tax (PBIT) / Net capital employed**

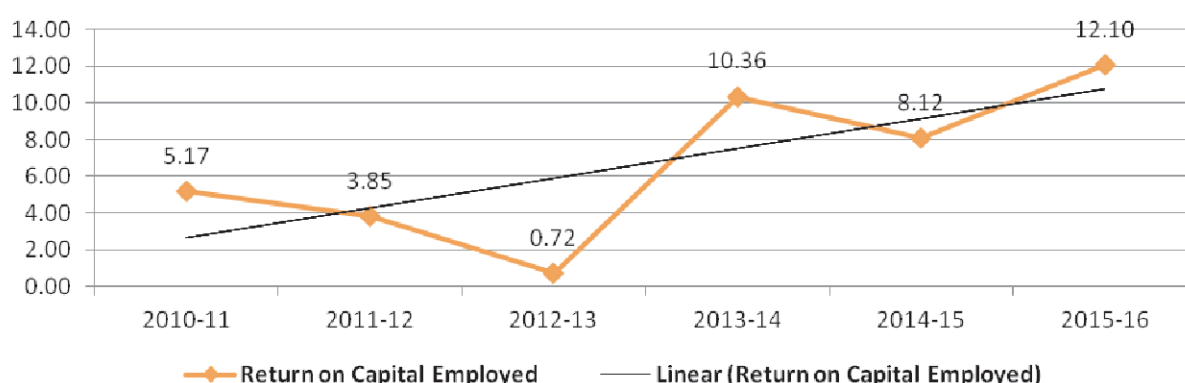
**(NCE) x 100 [Net Capital Employed = Total Assets minus Current Liabilities]**

As evident from appendix- I, the overall return on capital employed of the sample company is 6.72% which shows overall increasing trend except in the year 2012-13 during the period of the study.

#### G.10

Return on Capital Employed Ratio of the sample company during the period of study

### Return on Capital Employed



The Return on Capital Employed ratio was 5.17% in 2010-11 and it increased to 12.10% in the year 2015-16. The decrease of 25.53% in the year 2011-12 mainly due to increase in fuel cost by 234.77% which ultimately reduce operating profit of the sample company as compared to previous year. In the year 2012-13, steep decline of 81.30% was registered because of 121.48% increase was registered in fuel cost expense of the sample company over its previous year. The Return on capital employed ratio was 10.36% in the year 2013-14 which was due to 71.37% sharp rise was registered in total revenue of the sample company compared to immediate last year. The decrease of 21.62% in the year 2014-15 was because of 793.43% increase in blockage of funds due to purchase of stock-in-trade. In the year 2015-16, the ratio of 12.10% was highest during the study period and it was due to steep increase of 19.57% was

registered in total revenue of the sample company. The triennial average of 10.19% during the second half of the study period was higher as compared to 3.25% during the first half of the period. This indicates that the management of the sample unit had earned adequate return on its capital. The internal resource mobilisation of the sample unit was highly appreciable during the second half of the study period.

#### Working Capital V/s Profitability:

For analysing relation between various variables of working capital i.e. CR, QR, ITR, DTR, CTR, WCTR and profitability represented by ROCE variable under present study, multiple correlation analysis tests have been conducted between ROCE and CR, QR, ITR, DTR, CTR, WCTR for sample unit under study.

	ROCE	CR	QR	ITR	DTR	CTR	WCTR
ROCE	1						
CR	-0.24317	1					
QR	-0.02047	0.9726915	1				
ITR	0.637384	0.4113579	0.541695	1			
DTR	-0.09404	-0.228143	-0.27284	-0.32013	1		
CTR	-0.01812	-0.077056	-0.0225	-0.49522	-0.24369	1	
WCTR	-0.64157	-0.003001	-0.10319	-0.83971	0.073595	0.662957	1

It becomes clear that after analysing the above table, there is negative relation between ROCE and CR, QR, DTR, CTR but strong negative relation found between ROCE and WCTR. Moreover, there is positive relation between ROCE and ITR. Thus, out of the six variables, five variables are negatively correlated with ROCE and only one variable positively correlated with ROCE during the period of the study

It becomes clear that management in Adani Power Limited is efficient in management of collection of money due from customers and thereby utilising funds for working capital management activities. However, in case of Debtors management during second half of the study liberal credit policy with longer collection period is provided which offset the benefit of early collection from debtors as compared to initial three years. As per Karl-Pearson Coefficient Correlation, highest negative relation between ITR and WCTR followed by between ROCE and WCTR

#### **Conclusion:**

The working capital management in Adani Power Ltd is very poor. The liquidity as measured by various ratios shows inability of the firm to meet its short term obligations. The current ratio, quick ratio of the sample company have remained too low as compared to the standard norm throughout the entire period of study which exhibits very poor liquidity. The Current ratio, quick ratio, debtors turnover ratio and working capital turnover ratio are negatively correlated with return on capital employed. Increase in liquidity leads to decrease in profitability and vice versa. A proper tradeoff between liquidity and profitability needs to be maintained so as to maximize profit and wealth of shareholders.

The negative working capital of the sample company in 5 out of six years of study indicates that company takes the advantage of working capital

leverage. The short term sources of the funds are utilized to finance the long term financial requirement. In other words cheaper funds are utilized to finance highly profitable assets (i.e. fixed assets) and this leads to higher profitability. There is a wide gap between payment period and debt collection period. The average debt collection period is quite less as compared to the average payment period which indicates that company follow stringent credit policy for collection of debt and avails liberal credit policy for the payment to suppliers.

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#### **Appendix-I**

Year	Current Ratio	Quick Ratio	Absolute Quick Ratio	Working Capital Turnover Ratio	Inventory Turnover Ratio	Debtors Turnover Ratio	Creditors Turnover Ratio	Return on Capital Employed
2010-11	0.55	0.47	0.18	-1.37	14.74	13.98	0.90	5.17
2011-12	0.49	0.42	0.28	-0.73	7.23	15.99	5.00	3.85
2012-13	0.37	0.26	0.13	-0.87	6.09	11.27	2.94	0.72
2013-14	0.32	0.25	0.03	-1.25	10.03	22.85	2.24	10.36
2014-15	0.41	0.33	0.03	-1.36	11.28	11.28	3.29	8.12
2015-16	0.43	0.38	0.02	-1.24	14.02	4.47	3.73	12.10
<b>Mean</b>	<b>0.43</b>	<b>0.35</b>	<b>0.11</b>	<b>-1.14</b>	<b>10.56</b>	<b>13.31</b>	<b>3.02</b>	<b>6.72</b>

*Source: Appendix - III*

#### **Appendix – II**

Particulars	2010-11	2011-12	2012-13	2013-4	2014-15	2015-16	Mean
Debt collection period (in days)	25.75	22.51	31.94	15.75	31.91	80.48	34.72
Credit payment period (in days)	398.45	72.05	122.37	160.75	109.58	96.41	159.93
For calculation purpose number of days in year taken as 360 days.							

*(Source: Appendix III)*



Appendix – III

Sr. No.	Particulars	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
	<b>Total Revenue</b>						
1	Revenue from Power Supply	2106.43	3948.9	6328.41	10706.19	9645.32	10673.50
2	Sale of Fly Ash	0	2.37	4.57	8.24	10.46	18.56
3	Revenue from coal sales	0	0	0	138.15	968.33	2012.05
	<b>Total</b>	<b>2106.43</b>	<b>3951.27</b>	<b>6332.98</b>	<b>10852.58</b>	<b>10624.61</b>	<b>12704.15</b>
	<b>Purchase</b>						
	Fuel cost	676.43	2264.49	4698.88	6223.57	11613.70	14726.31
	<b>Current Assets</b>						
1	Current Investments	0	0	12.36	0.02	221.43	0
2	Inventories	276.33	816.42	1263.25	901.48	982.04	830.86
3	Trade receivable	44.98	449.19	674.58	275.23	1448.70	4231.12
4	Cash & cash equivalent	626.26	3030.23	1486.01	412.79	369.05	429.51
5	Short term loans and advances	471.83	408.68	247.32	288.88	260.16	1083.26
6	Other current assets	443.83	574.45	515.61	2205.73	2061.45	1037.31
	<b>Total</b>	<b>1863.23</b>	<b>5278.97</b>	<b>4199.13</b>	<b>4084.13</b>	<b>5342.83</b>	<b>7612.06</b>
	<b>Current Liabilities</b>						
1	Short term borrowings	2004.23	6258.04	3941.26	4714.04	4234.67	9311.65
2	Trade payable	354.92	551.52	2642.86	2915.16	4154.72	3732.98
3	Other current liabilities	967.36	3392.42	4433.52	4752.28	4530.75	4698.01
4	Short term provisions	75.8	515.15	479.15	358.82	254.46	143.47
	<b>Total</b>	<b>3402.31</b>	<b>10714.13</b>	<b>11496.79</b>	<b>12740.30</b>	<b>13174.60</b>	<b>17886.11</b>
	<b>Net Working Capital</b>						
	Current Assets	1863.23	5278.97	4199.13	4084.13	5342.83	7612.06
	Current Liabilities	3402.31	10714.13	11496.79	12740.30	13174.60	17886.11
	<b>Difference between CA and CL = NWC</b>	<b>-1539.08</b>	<b>-5435.16</b>	<b>-7297.66</b>	<b>-8656.17</b>	<b>-7831.77</b>	<b>-10274.05</b>
	<b>Average Inventory</b>	142.93	546.38	1039.84	1082.37	941.76	906.45
	<b>Average Debtors</b>	150.64	247.09	561.89	474.91	861.97	2839.91
	<b>Average Creditors</b>	748.68	453.22	1597.19	2779.01	3534.94	3943.85
	<b>Net Capital Employed</b>						
1	Total Assets	25628.81	36108.14	38251.51	38779.01	37726.36	42045.11
2	Current Liabilities	3402.31	10714.13	11496.79	12740.30	13174.60	17886.11
	<b>NCE = 1 minus 2</b>	<b>22226.5</b>	<b>25394.01</b>	<b>26754.72</b>	<b>26038.71</b>	<b>24551.76</b>	<b>24159.00</b>
	<b>Profit before Interest and Tax (PBIT)</b>	1148.46	978.91	193.88	2696.44	1993.07	2923.02

Source: Annual reports of Adani Power Limited

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# An Empirical Analysis of Abnormal Returns of FMCG Companies of India

Bhargav Pandya

## Abstract

The paper aims at empirically measuring and analyzing the abnormal returns of listed FMCG companies in India. It identifies the best and worst performers in terms of mean abnormal return during the period of 2011-16.

A descriptive research design is used in the study. All 15 companies that comprise the CNX FMCG index are considered for the study. Using market model, abnormal return is calculated as the difference between the realized return and required return. Descriptive statistics, t test and Post Hoc tests are used to analyze the data.

Out of 15 companies, only four companies are found to have recorded statistically significantly positive mean abnormal return during the study period. The results also indicate that abnormal returns across the years are statistically significant.

The results of the study imply that the performance of FMCG companies has not been good in terms of registering statistically significant positive abnormal return during the study period.

Investment decision primarily rests on the premise of risk-return tradeoff. An investor who is investing in risky securities, expects to earn a minimum return that is commensurate with the degree of risk he is assuming. Abnormal return is that return which an investor earns over and above the required return. Higher abnormal return indicates that the stock of the company has beaten the market expectations and offered a premium to the investor.

This paper aims at analyzing the performance of 15 FMCG companies in terms of abnormal return for the period of 2011-2016. The paper has been divided into five sections. The second section discusses literature review; the third section presents research methodology, fourth sections present results and discussion, and fifth section offers a conclusion.

## Literature Review

Falk and Levy (1989) using the sample of 171 publicly traded companies found that, except for the day-1, 0 and +1 the companies did not seem to exhibit significant abnormal returns. These findings indicate that the stock market may not be considered efficient in the days immediately surrounding the earnings announcement.

Kothari and Ball (1991) too investigated the abnormal returns of the companies listed on the New York Stock Exchange around the time of earnings announcements. Using the CAPM model to calculate abnormal return, they found that there were significant abnormal returns four days-1, 0 and +1 around the earnings announcement.

Cornell and Lansman (1989) analyzed the impact of earnings surprises and earnings forecast changes on abnormal return. They concluded that market pays more attention to future earnings as against current surprises in quarterly earnings.

Meisami (2010) found that abnormal return was related to firm specific variables- issue size, investment banker, leverage, growth, and cost of capital.

Filsaraei, Azarberahman, and Azarberahman (2013) analyzed the abnormal returns from IPOs of Iranian oil and chemical companies. They found a positive abnormal return in the IPOs of oil and chemical companies. They also noted that firm size was a dominant factor affecting abnormal return on stocks of these companies.

**Kai and Xiaoguang (2014) conducted an empirical study on abnormal returns of listed companies of Chinese pharmaceutical industry. They used Capital Asset Price Model (CAPM) to measure the required return on the stocks of sample companies. They found that abnormal returns of the pharmaceutical companies were significantly different.**

## Research Gaps

As far as our knowledge goes, we did not find any sector specific study that has been carried out to measure and analyze the abnormal returns in India. In this context, this paper fills that vacuum by empirically measuring and

analyzing the abnormal returns in the context of FMCG companies that are listed on the National Stock Exchange.

### Research Methodology

#### Research Design

A descriptive research design was used in the study to analyze the abnormal return of sample companies during the study period.

#### Research objectives

Following were the key research objectives.

- To analyze the abnormal returns of sample FMCG companies during the study period.
- To rank the companies depending upon their mean abnormal returns during the study period that, in turn, will help to identify the best and worst performing companies in terms of highest and lowest mean abnormal returns respectively.
- To assess year-wise pair comparisons of abnormal returns of the sample companies.

#### Sampling unit and size:

All 15 companies included in the CNX FMCG index comprised the sample of the study.

#### Data Collection

Secondary data relating to company stock prices were culled from CAPITALINE software. Data regarding the Central Government Dated Securities were taken from Reserve Bank of India website.

#### Variables of the study

##### Abnormal Return

Abnormal return is simply the difference between the return earned on the stock and the return required for the stock. It can be calculated by deducting the required return for the stock from the realized return for the stock.

Abnormal Return = Actual stock return- Required return

##### Actual stock return

In order to calculate the returns earned on the stocks, year-end closing prices of the sample companies were considered throughout the study period. Stock return was calculated using the following equation.

Actual stock return =  $\frac{\text{Closing price of the stock in time period } t - \text{Closing price of the stock in time period } t-1}{\text{Closing price of the stock in time period } t-1}$

##### Required return

Required returns for the sample companies were calculated using the Capital Asset Pricing Model (CAPM). As per the CAPM, the required return on the stock can be estimated using the following equation.

Required return for the stock = Risk-free rate + Equity beta \* Market Risk premium

Weighted average returns on Central Government dated securities for the study period were taken as risk free rates for the corresponding years. Equity beta values were directly taken from CAPITALINE software. The market risk premium was calculated as the difference between return on market index and risk free rate. The BSE Sensex was taken as a market index. Its returns were computed as using the following equation.

Market return =  $\frac{\text{Closing Value of the BSE Sensex in time period } t - \text{Closing Value BSE Sensex in time period } t-1}{\text{Closing Value BSE Sensex in time period } t-1}$

##### Tools of Analysis

In order to measure whether an individual company generated statistically significantly positive abnormal return during the study period, one sample t test was used. Descriptive statistics were used to analyze year-wise and company-wise abnormal returns. ANOVA and Post Hoc test were applied to measure significant difference between abnormal returns of different years covered in the study.

##### Hypotheses of the study

Following hypotheses were tested in order to accomplish the stated research objectives.

H<sub>1</sub>: The mean abnormal return of sample companies is not significantly different from zero.

H<sub>2</sub>: Abnormal returns of the sample companies do not significantly differ across the years.

##### Results and Discussion

##### Year-wise Descriptive Statistics

The year-wise descriptive statistics of abnormal returns of the sample FMCG companies are presented in table 1. Mean abnormal return of the sample was found to be highest in the year 2012 (M= 60.32). Whereas, it was negative in the year 2016. (M = -4.32). In terms of volatility, abnormal return were very volatile in the year 2012 (SD= 64.19). On the contrary, the least volatility was found in the year 2016 (SD= 17.11).

**Table 1: Year-wise Descriptive Statistics**

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
2011	15	12.62	21.58	5.57	-36.85	51.54
2012	15	60.32	64.19	16.57	-2.33	261.94
2013	15	5.27	26.70	6.89	-25.84	76.51
2014	15	12.26	34.39	8.88	-28.76	82.29
2015	15	16.35	18.64	4.81	-11.76	57.52
2016	15	-4.32	17.11	4.42	-43.19	16.44
Total	90	17.08	39.29	4.14	-43.19	261.94

### Company-wise Descriptive Statistics

Table 2 presents the company-wise descriptive statistics of the sample companies. Britannia Industries Ltd was found to have registered highest mean abnormal return during the study period and thus ranked at the top in terms of mean abnormal return. (M= 38.61, SD=37.86). It was followed by United Spirits Ltd at second position (M= 37.08, SD=114.01). United Spirits Ltd also recorded the highest volatility with the highest standard deviation. Marico Ltd was ranked at the third position (M=18.93 SD= 18.93). Emami Ltd (M =23.96, SD=24.19) and Godrej Consumer Products Ltd (M= 22.24, SD= 34.20) were ranked at fourth and fifth position respectively in terms of mean abnormal returns. Tata Global Beverages Ltd

recorded the lowest mean abnormal return during the study period and occupied a last position with a lowest mean abnormal return (M = 0.77, SD = 26.88). Second lowest mean abnormal return was recorded by ITC Ltd. (M = 7.69, SD= 19.09). Jubilant Food works Ltd was in the third position in terms of lowest mean abnormal return. (M = 8.31, SD = 35.88). Colgate-Palmolive (India) Ltd (M = 8.84, SD= 22.81) was ranked at the fourth position from the bottom. Glaxo Smithkline Consumer Healthcare Ltd occupied the fifth rank from the bottom in terms of lowest mean abnormal return (M = 10.13, SD = 15.90). United Breweries Ltd recorded second highest volatility in its abnormal returns (SD = 59.03) just after that of United Spirits Ltd.

**Table 2: Company-wise Descriptive Statistics**

Company		N	Minimum	Maximum	Mean	Std. Deviation	Rank (Based on Mean Abnormal Return)
Britannia Industries Ltd	Abnormal Return	6	-2.33	82.29	38.61	37.86	1
United Spirits Ltd	Abnormal Return	6	-36.85	261.94	37.08	114.01	2
Marico Ltd	Abnormal Return	6	-9.06	43.59	25.01	18.93	3
Emami Ltd	Abnormal Return	6	-4.15	59.82	23.96	24.19	4
Godrej Consumer Products Ltd	Abnormal Return	6	-6.67	84.21	22.24	34.20	5
Procter & Gamble Hygiene and Health Care Ltd	Abnormal Return	6	-6.36	75.83	20.79	30.18	6
United Breweries Ltd	Abnormal Return	6	-25.84	131.87	15.11	59.03	7
Godrej Industries Ltd	Abnormal Return	6	-21.31	59.90	14.18	32.49	8
Dabur India Ltd	Abnormal Return	6	-6.73	23.62	12.36	11.33	9
Hindustan Unilever Ltd	Abnormal Return	6	-3.39	39.78	11.16	15.66	10
Glaxo Smithkline Consumer Healthcare Ltd	Abnormal Return	6	-11.64	37.57	10.13	15.90	11
Colgate-Palmolive (India) Ltd	Abnormal Return	6	-22.14	43.45	8.84	22.81	12
Jubilant Foodworks Ltd	Abnormal Return	6	-43.19	51.54	8.31	35.88	13
ITC Ltd	Abnormal Return	6	-13.13	32.76	7.69	19.09	14
Tata Global Beverages Ltd	Abnormal Return	6	-28.76	50.25	0.77	26.88	15



### Results of Hypothesis #1

In order to test the first hypothesis, one sample t test was run. Table 3 depicts the results of the same. Out of 15 companies, only four companies recorded statistically significantly positive mean abnormal return during the study period. Britannia Industries Ltd recorded statistically positive abnormal return during the study period. ( $t(5) = 2.5$ ,  $p < 0.05$ ) with a mean difference being 38.61. Marico Ltd, registered

statistically positive abnormal return during the study period ( $t(5) = 3.24$ ,  $p < 0.05$ ) with a mean difference being 25.01. Emami Ltd also recorded statistically positively significant abnormal return ( $t(5) = 2.43$ ,  $p < 0.05$ ) with a mean difference of 23.96. Dabur India Ltd was the fourth company that recorded statistically significant positive abnormal return during the study period ( $t(5) = 2.67$ ,  $p < 0.05$ ) with a mean difference of 12.36.

**Table 3: One-Sample Test**

Company		Test Value = 0				
		t	df	Sig. (2-tailed)	Mean Difference	Sig. (1-tailed)
Britannia Industries Ltd	Abnormal Return	2.50	5.00	0.05	38.61	0.03
Colgate-Palmolive (India) Ltd	Abnormal Return	0.95	5.00	0.39	8.84	0.19
Dabur India Ltd	Abnormal Return	2.67	5.00	0.04	12.36	0.02
Emami Ltd	Abnormal Return	2.43	5.00	0.06	23.96	0.03
GlaxoSmithkline Consumer Healthcare Ltd	Abnormal Return	1.56	5.00	0.18	10.13	0.09
Godrej Consumer Products Ltd	Abnormal Return	1.59	5.00	0.17	22.24	0.09
Godrej Industries Ltd	Abnormal Return	1.07	5.00	0.33	14.18	0.17
Hindustan Unilever Ltd	Abnormal Return	1.75	5.00	0.14	11.16	0.07
ITC Ltd	Abnormal Return	0.99	5.00	0.37	7.69	0.18
Jubilant Foodworks Ltd	Abnormal Return	0.57	5.00	0.60	8.31	0.30
Marico Ltd	Abnormal Return	3.24	5.00	0.02	25.01	0.01
Procter & Gamble Hygiene and Health Care Ltd	Abnormal Return	1.69	5.00	0.15	20.79	0.08
Tata Global Beverages Ltd	Abnormal Return	0.07	5.00	0.95	0.77	0.47
United Breweries Ltd	Abnormal Return	0.63	5.00	0.56	15.11	0.28
United Spirits Ltd	Abnormal Return	0.80	5.00	0.46	37.08	0.23

### Results of Hypothesis #2

In order to test the second hypothesis, one way ANOVA and Post Hoc tests were employed. The results of One way ANOVA are presented in table 4.

Results indicate that abnormal returns across the years are statistically significant ( $F(5,84) = 6.35$ ,  $p < 0.05$ ).

**Table 4: ANOVA**

Abnormal Return					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	37658.56	5.00	7531.71	6.35	0.00
Within Groups	99707.25	84.00	1186.99		
Total	137365.81	89.00			

Tukey HSD tests were conducted on all possible pair wise comparison of abnormal returns. Year 2012 recorded significantly different mean abnormal return from that of 2011, 2013, 2014, 2015, and 2016 ( $p < 0.05$ ). Results of homogeneous subsets are presented in table 6. It is evident from table 6 that

mean abnormal return does not significantly differ among the years 2011, 2013, 2014, 2015, and 2016. On the contrary, the mean abnormal return in the year 2012 significantly differs from that of other years.

**Post Hoc Tests**  
**Table 5: Multiple Comparisons**

Dependent Variable: Abnormal Return Tukey HSD						
(I) Year	(J) Year	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
2011	2012	-47.69381*	12.58	0.00	-84.38	-11.00
	2013	7.35	12.58	0.99	-29.34	44.04
	2014	0.36	12.58	1.00	-36.33	37.05
	2015	-3.72	12.58	1.00	-40.42	32.97
	2016	16.95	12.58	0.76	-19.74	53.64
2012	2011	47.69381*	12.58	0.00	11.00	84.38
	2013	55.04469*	12.58	0.00	18.35	91.74
	2014	48.05175*	12.58	0.00	11.36	84.74
	2015	43.96896*	12.58	0.01	7.28	80.66
	2016	64.64098*	12.58	0.00	27.95	101.33
2013	2011	-7.35	12.58	0.99	-44.04	29.34
	2012	-55.04469*	12.58	0.00	-91.74	-18.35
	2014	-6.99	12.58	0.99	-43.68	29.70
	2015	-11.08	12.58	0.95	-47.77	25.62
	2016	9.60	12.58	0.97	-27.09	46.29
2014	2011	-0.36	12.58	1.00	-37.05	36.33
	2012	-48.05175*	12.58	0.00	-84.74	-11.36
	2013	6.99	12.58	0.99	-29.70	43.68
	2015	-4.08	12.58	1.00	-40.77	32.61
	2016	16.59	12.58	0.77	-20.10	53.28
2015	2011	3.72	12.58	1.00	-32.97	40.42
	2012	-43.96896*	12.58	0.01	-80.66	-7.28
	2013	11.08	12.58	0.95	-25.62	47.77
	2014	4.08	12.58	1.00	-32.61	40.77
	2016	20.67	12.58	0.57	-16.02	57.36
2016	2011	-16.95	12.58	0.76	-53.64	19.74
	2012	-64.64098*	12.58	0.00	-101.33	-27.95
	2013	-9.60	12.58	0.97	-46.29	27.09
	2014	-16.59	12.58	0.77	-53.28	20.10
	2015	-20.67	12.58	0.57	-57.36	16.02
*. The mean difference is significant at the 0.05 level.						

**Table 6: Homogeneous Subsets Abnormal Return**

Abnormal Return			
Tukey HSD			
Year	N	Subset for alpha = 0.05	
		1	2
2016	15	-4.32	
2013	15	5.27	
2014	15	12.26	
2011	15	12.62	
2015	15	16.35	
2012	15		60.32
Sig.		0.57	1.00

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 15.000.

### Conclusion

The results of the study have shown that abnormal returns of the sample 11 FMCG companies were not significantly positive during the study period. This implies that these companies failed in generating the excess return sought by investors in addition to the return that compensates their risk of investment in the stocks of these companies. On the contrary, only four companies could register significantly positive abnormal returns during the study period. These suggest that these companies have been able to perform better than the expectation of investors by offering them positive abnormal returns throughout the study period.

This study was very restrictive in its nature as it only considered listed FMCG companies. To gain deeper insights into the ups and downs in abnormal returns across the different sectors of economy, a study encompassing broad market index like BSE 200, or NSE 100 is warranted.

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## The need of Compulsory Application of Accounting Standards in different sectors to catch frauds

Saroj Vats

### Abstract

8<sup>th</sup> Nov., 2016, when demonetization was announced by Prime minister of India, all the enterprise, business communities and individuals everyone has to undergo the roll back process of notes deposal. One of the major reasons stated for demonetization was black money. Swiss bank is carrying millions and trillions of Indian rupees. This money is unaccounted that is black money, the money which is created either by tax evasion or by fooling the investors. Every concept has two sides of coin. Authority and responsibility go hand in hand. A country like India where the economy is quite complex so do the entities are. Every day people are putting their money in different companies, the frauds are common if regulations are not properly laid. Sharda and Satyam are the biggest examples of fraud. In 90's Tamilnadu was notorious for chit fund companies' fraud. A Deductive approach is used to write and analyze because financial data are in the theoretical form and based on this information. Theoretical information shows: various accounting fraud that misleads the Investors, Auditors, as well as Government. Though there are several rules and regulations to avoid corporate scandals, it is not possible to avoid complete abolition of scandals. In this analysis the study tries to find out some measures that can avoid the corporate scandal through analyzing the various accounting scandals.

### Introduction

The principles of accounting are applied to business entities in three divisions of practical art: Accounting, Bookkeeping, and Auditing. These principles particularly specify that how a transaction should be entered in book-keeping and what are the responsibilities of auditing firm while carrying auditing work. Johan L. Carey, describes ethics in accounting that a certified public accountant is someone whom one can trust to do a good job-not for him, but for general public. But if we analyze the reasons for several accounting scandals it shows auditors' irresponsibility and unethical involvements with corporate, are some of the important reasons. Luca Pacioli was the first person who introduced the concept ethics in accounting and says "Do not omit any items in the Book-keeping" because the final aim of preparation of accounting is to give sound economic and financial information to various stakeholders as well as the concerned parties to the business. But now a day's accounting practices are reverse to his thought.

Starting from 1938 several scandals took place because of

- lack of internal control,
- illegal cooperation of auditor towards company,
- misappropriation of assets,
- issuing fake invoice for merchandise purchases,
- making unknown journal entries to increase inventory,
- over counting merchandise,
- poor internal control,
- lack of management information system,
- Absence of audit committee.

And it was found that the investors opine that both the parties' i.e. corporate sectors and auditors are responsible to these scandals. Some time business entity may not provide fair information to auditor where as some time internal auditors try to hide information that affects the reputation of organizations. However the number of accounting fraud is because of lack of auditor's responsibility. Due to this, investors, brokers, and banks suffer losses worth millions and billions of rupees.

Now various professional accounting bodies are pronouncing new audit standards, creating more audit procedures, tests of control, and interpretation of accounting standards, but it is not sure that it really avoids the accounting fraud. Because standards do not change the mindset of business entities and auditors and they know how to fake their annual report with sound accounting and auditing standards. However, it is possible only when they try to follow accounting and corporate ethics. Then it automatically reduces fraudulent activities in accounting. because the scandals show that though there are sound accounting standards, it is not possible to avoid accounting fraud.



**Why national and international accounting standards?**

Today the entire world is considered as a single village, but still there is a lack of difference in accounting practices that are disruptive to investors and others and it fails to bring fairness and uniformity in accounting information. So, to bring uniformity in accounting system it is necessary to adopt or converge with IFRS. The International Accounting Standards Board (IASB) is the major professional accounting body in pronouncing a single set of accounting standards across the world. The IASB elaborates its functions through establishment of International Financial Reporting Standards (IFRS). The standards are investor friendly and principle based. The main reason behind the establishment of IFRS foundation is to bring uniformity and fairness in financial statements and minimize the several alternatives of single transaction. US-GAAP and IFRS are the leading Accounting Standards in the world, but IFRS are investors' friendly standards and it bringing fairness in financial statements, because each country has accounting standards of its own, but some national accounting standards are not covering the Basic Accounting Principles. Speaking in the wake of the WorldCom scandal in August 2002, Robert Howell, programme director of International Institute for Management Development, stated that the object of business is to create real shareholder value which means increasing the net present value of the future stream of cash flows.

Presently, some countries have voluntarily adopted the IFRS, but still many countries are not ready to complete adoption and they are trying to converge their national accounting standards with IFRS. India is one among them. However, this paper aims to how to use accounting standards to catch the frauds? The convergence of Indian standards with IFRS has both positive and negative benefits, but the positive benefits are greater than its drawbacks. Some studies were conducted earlier in this regard. Hans (2006) predicts that the counterfactual proxy for U.K. firm's adoption of IFRS is needed, because the implied cost of equity is negatively related to their proxy. Later, Lucian (2011) opines that adoption of IFRS is beneficial to firm, because convergence or adoption of IFRS brings benefit to companies to reduce their cost of capital through expanding their sources of fund. Shinya (2011) suggests that, there

may be a conflict between firms and domestic investors, in countries in which the ratio of net is high and secondly the adoption of IFRS is beneficial to firms or investors depends not only on the quality of the accounting standards, but also the fraction of foreign investors.

In India the candle for accounting standards and its importance was ignited in the year 2011. In India has already announced the convergence of INDAS with IFRS in a phased manner in three phases. Phase I started from on 1 April 2011; and Phase II was from started from 1 April 2013; during the second phase some of the old accounting standards were replaced with new accounting standards. Like AS 19 was removed from the list. Then from April 2014 Phase III started with no new amendments.

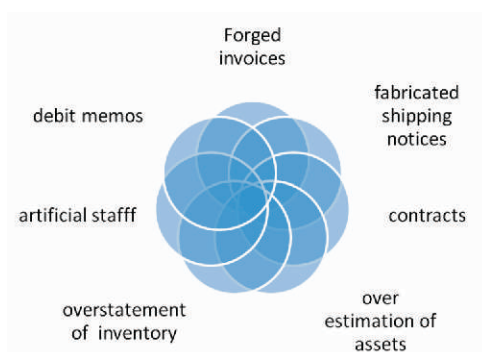
In 2012, Karthik asked a question through his research work, "Should the IASB put more emphasis on convergence over full adoption in promoting IFRS use? Should the IASB make accommodations to its organizational structure to facilitate U.S. adoption? Should the IASB make further adjustments to its governance to accommodate its growing membership and stakeholder base?" the same was supported by Sarbapriya in the same year (2012) in her study concludes that there are not much deviations and fluctuations in the net income position as disclosed by financial statement of Wipro Ltd, which is quite a reputed company in India about IFRS reporting and Indian GAAP. But deviation is rather prominent observing the total liability and equity position which is mainly because of reclassification between equity and total liability. In the same year Bhuvn (2012) states that the adoption of IFRS will reflect more appropriately the revenues of Indian Real Estate developers and their ability to deliver projects and IFRS deals with market risks that are related to real estate projects more effectively than the Percentage Completion Method. he targeted on real estate companies was quite clear as biggest players of real estate sector were found guilty in tax evasion. Later Vineet, (2013) predicts that one of the questions of concern is that the top 30 companies of BSE & 50 companies of NSE i.e. Nifty-50, were not ready to co relate them with accounting standards and in that case, the use of converged standards is questionable. Similarly in 2013, Aabida opines that majority of the respondents who were corporate clients, not aware about the convergence of IFRS

and the Indian accounting standards. In addition to this it was found that all of the respondents were not clear about the contents of IFRS. In the same year it was found in study of Partap's paper (2013) that, even in academics there is a clear difference in awareness level for different category of academicians. A very small percentage of academicians make efforts to contribute in research in IFRS area. Shibu (2013) states that convergence of INDAS with IFRS has changes in accounting transition as well as reporting system.

Transition of IND GAAP to IFRS will face many problems, but it has also some advantages. If IFRS has to be uniformly understood and consistently applied by all stakeholders such as, employees, auditors, regulators and tax authorities, it has to be achieved through training. To carry the accounting standards smoothly it is necessary for national accounting standard setting bodies to integrate the values of professionalism, flexibility, optimism and transparency into their professional activities and set realistic timeframes and deadlines for the transition to IFRS to allow the local accounting culture to catch up with new IFRS reforms.

#### **How Accounting Fraud is condemned?**

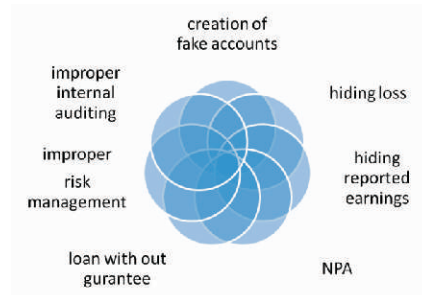
Majority of companies do not disclose their financial data to anyone. Even not to their auditors. In some case if the auditors are honest and ethical, company or officials on the behalf of company i.e. directors change the reports before they are presented in annual general meeting. It means that the shareholders never get the true picture of company's financial health. In general the fraud conducted through-



#### **Fraud in banks-**

Banks are having largest contribution in Indian service industry. The need for more and more banks as per the rising demand of keeping money safe.

After the first generation economic reforms the Indian banking industry is full of private, public and foreign banks. There are total 27 public sector banks, 17 old private sector banks, 13 new private sector banks and 44 foreign Banks. Banks create wealth and contribute in GDP, similarly it averse high risk of misconduct.



#### **Frauds in insurance companies-**

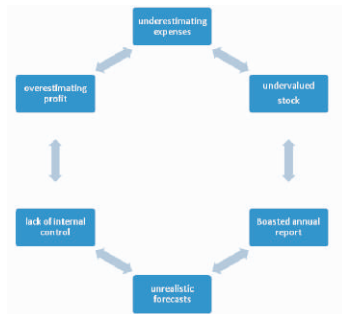
There are total 37 insurance companies in India which are indulged in general as well as in general insurance, out of this there are 19 life insurance companies, 17 health insurance companies and only 1 re-insurance company. Today the growth rate of insurance sector is 28% p.a. hike of this sector lures more and more national as well as international players to invest in this industry. But at the same time it attracts risk of frauds also. The common frauds found in insurance are-



Accounting for insurance companies is totally oversighted by IRDA.

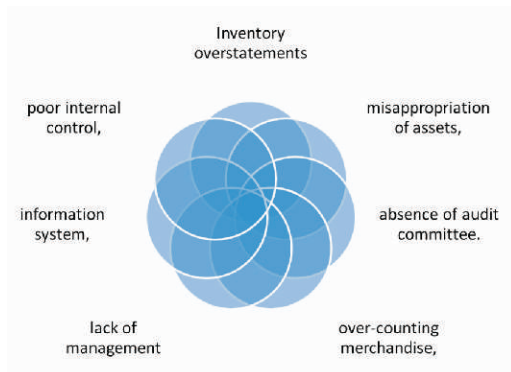
#### **Fraud in a Special purpose Entity –**

In India, we have some entities which are formed with a specific purpose. This purpose can be financial as well as non financial. Generally in India people make a special trust for a special purpose. Majority of these trust hide the true financial information. The types of fraud which are found in this area are



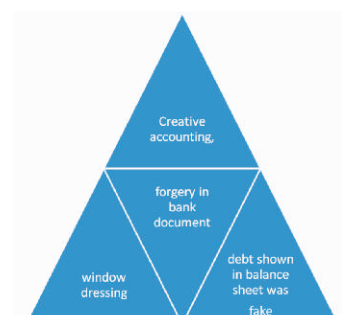
### Fraud in Pharmaceutical companies-

When Dilip Sanghvi become India's richest man by shareholders worth, it shows strength of Indian pharmaceutical sector. Indian pharmacy sector is earning maximum from sale of drugs to abroad due to better quality and less price. In fact surprisingly the major pharmacy companies have direct impact on GDP. Study says that the pharmacy sector is growing at its best so it attracts risks of financial fraud too. A major English company caught in accounting fraud in 2003. The net shell of the accounting fraud in pharmacy company are-



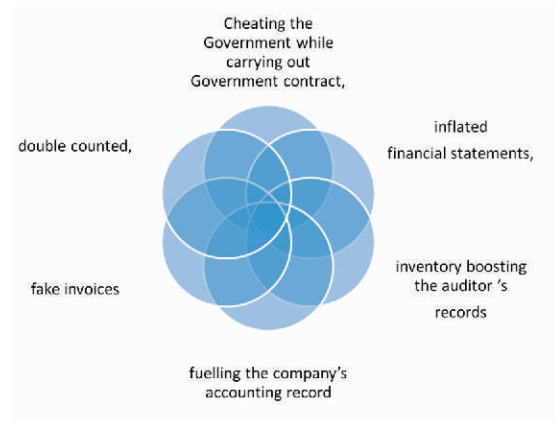
### Fraud in food companies-

A renowned Italian company which was indulged in food business, bankruptcy of such a giant company ringed bells of many. It was alarming for many. Particularly to the people who had invested their money in such type of companies. It's awful that reputed companies also caught in frauds. Following are the learning of accounting frauds from this type of company are-



### Fraud in FMCG companies-

Throughout the world we have this type of companies. In fact the major share of all economies is captured by such companies only. Last but not the least but FMCG companies are not exception to the rule of conducting accounting frauds. Following are the causes where a forensic accounting expert should concentrate.



### How forensic accounting traces these frauds?

1. Forensic accounting utilizes basic economic theories and information for cross verification of financial reporting and the system indulged in the same.
2. It checks accounts with the INDAS as well as GAAP . Data management and discoveries through electronic mediums and investigating techniques are part of detective skills.
3. Knowledge removes dark. It can be a two way activity. One hand involvement of enterprises is directly on the other hand involving the common public in the same. If Government of India mandates statutory audit for all the enterprises irrelevant of size and type, similarly for all higher education institutions that they should include IFRS and ethics in accounting and auditing in their syllabus especially for commerce and managements. The basic problem can be removed from grass root if properly explained and practiced by students.
5. Arranging workshop to all industries and corporate entities (small and large) with regard to implication of IFRS, and its benefits. These workshops can be initiated by local as well as state level registered organizations like CII, CED, FICCI and other chambers.
6. Auditors play vital role in managing transparency in accounting system. Accounting firms and

Auditors should try to practice ethics in their accounting profession that helps to give fair information to investors which help them to take accurate investment decisions.

7. Every organization should have one separate department like, Forensic Accounting which may minimize unethical accounting practices for sure by continuous inspection.

#### **Conclusion-**

The standard policies are intended to reflect a consensus on accounting policies to be used in different identified area, e.g. inventory valuation, capitalization of costs, depreciations and amortizations and so on. Since it is not possible to prescribe a single set of policies in any area to be appropriate for all enterprises for all time, it is not enough to comply with the standards and state that they have been followed; one must also disclose the accounting policies actually used in preparation of financial statements.

In India accounting standards are very complicated as state also rules. So to remove the bottle necks of intrastate and international accounting standards difference it is necessary to go for convergence of INDAS to IFRS. It may have some initial problems but in future it is helpful. Forensic accounting will make it very easy with the help of it. Forensic

accounting not only investigates the accounts made by enterprise, but it involves recovery from proceedings. It is a process which can save stake holders from fraud and country from money laundering.

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## Did agriculture receive a jolt after Demonetization in India? – An empirical insight

Pinakin Jaiswal

### Abstract

The announcement by the Honorable Prime Minister of India on November 8, 2016 will go down as one of key decisions of the Indian government in the recent history. In a televised address, a proclamation was made to render currency notes with denomination of Rs. 500 and 1000, as illegal or invalid tender, the process being termed as 'Demonetization'. These currency denominations constituted about 86% (Rs. 14.5 lakh crores) of the total currency in circulation in the country. This led to several hardships to the people of India. One such sector was agriculture. There have been media reports regarding adverse impact on farmers. However, little quantitative or objective research material is available on this. This study examines the impact of Demonetization on the agriculture. This is gauged by comparing the fertilizers sales of leading companies, for the quarter ended Dec-2016 and quarter ended Dec-2015. A paired 't-test' was conducted to see if there was decline in sales of fertilizers in quarterly sales this year after Demonetization. The research finds that there is a significant decline in quarterly sales of fertilizer products for the qtr. ended Dec-2016 when compared to the same qtr. previous year (2015). This highlights the adverse impact on agriculture, after demonetization.

### Introduction

The announcement by the Honorable Prime Minister of India on November 8, 2016 will go down as one of key decisions of the Indian government in the recent history. In a televised address, a proclamation was made to render currency notes with denomination of Rs. 500 and 1000, as illegal or invalid tender, the process being termed as 'Demonetization'. These currency denominations constituted about 86% (Rs. 14.5 lakh crores) of the total currency in circulation in the country. Some may argue that this is not Demonetization in its strictest sense, but simply an exchange of the old currency for new currency notes, albeit without giving prior notice and making it sudden with an element of surprise. The major objectives, as also the justification for the Demonetization appeared to be as follows:

- 1) Curb the unaccounted black money that could have been made through corrupt practices
- 2) Eliminate the menace of fake currency and hit the terror funding network

While the objectives are noble and every Indian would defend the objectives, it is not very clear if these objectives were fulfilled after Demonetization. News paper reports mention that almost all the banned currency (97%) has been returned through the banking channel to the Government. The revenue secretary of Govt. of India also mentioned to the media that almost all the banned currency notes are expected to come back. Given this it is unclear how the black money has been curbed through this exercise.

Besides the purported advantages there seems to be problems too created by this Demonetization. Long and unending queues outside banks for several days after the announcement have caused hardships to the common man. There have been reports that small and medium scale industries which heavily depend on cash have been severely hit and many workers were rendered unemployed. There was also an apprehension that the agriculture sector would be hit as the rural farmers heavily deal in cash and they were unable buy inputs for their farming needs. This season fortunately the monsoon was better than the previous year and farmers were expected to take advantage of this. There have been lots of media reports about farmers not being able to buy the requisite seeds, fertilizers etc. due to Demonetization. However there is little quantitative and objective research material to highlight the impact of Demonetization on agriculture. This is the motivation behind this short and succinct research. This research is aimed at finding empirical evidence of adverse impact of the Demonetization on agriculture, if any.

### Data and Methodology

The impact on Indian agriculture is gauged here by the comparing the sales/revenue of major fertilizers company based on quarterly results.



Demonetization was announced in November 2016. The quarter of interest in this study therefore is the quarter concluded in December 2016. The performance of this quarter is compared with the same quarter previous year i.e. 2015 to see if there is significant difference in sales/revenue compared to last year. The major factor like monsoon is similar during the December quarter this year (2016) and last year. Difference if any is that this year the monsoon was slightly better than last year and therefore ceteris paribus, sales of the fertilizers should either be same or better than previous year. Therefore this analysis seeks an answer to the question: Have sales of Fertilizers declined significantly vis-à-vis last year?

Based on research question the hypotheses to be tested are formulated as follows:

**Null Hypothesis:** There is no significant difference in sales of fertilizers for the Quarter ended Dec. 2016 vis-à-vis quarter ended Dec 2015

**Alternate Hypothesis:** The sales of fertilizers have significantly declined in quarter ended Dec.2016 when compared to quarter ended Dec. 2015

Significance Level ( $\alpha$ ) – 0.05 (5 percent) - one tailed  
Fertilizers as product require substantial capital outlays in machinery and equipment and most of the companies dealing in these are large and listed companies. In fact many of these are government owned. Published data regarding the sales of fertilizers of fourteen listed companies has been obtained as tabulated below:

Sr. No.	Company Name	Fertilizer Sales (Rs. Crores)		Market Capitalization
		OCT- DEC (Quarter)	OCT- DEC (Quarter)	(Rs. cr) As on Feb 1 ,2017
		2015	2016	
1	COROMANDEL INTERNATIONAL LTD	2748.96	2270.41	9,494.38
2	GUJARAT STATE FERTILIZERS & CHEMICALS LTD	1205.7	717.2	4,387.24
3	GUJARAT NARMADA VALLEY FERTILIZERS & CHEMICALS LTD.	471.3	524.9	3,813.98
4	CHAMBAL FERTILISERS & CHEMICALS LTD	2601.467	2382.093	3,360.88
5	RASHTRIYA CHEMICALS & FERTILIZERS LTD	1721.69	1393.63	3,210.82
6	DEEPAK FERTILISERS & PETROCHEMICALS CORPORATION LTD.	409.65	229.5	2,311.85
7	ZUARI AGRO CHEMICALS LTD	1105.11	949.85	1,400.53
8	Nagarjuna Fertilizers and Chemicals Ltd	1184.87	872.98	750.57
9	MANGALORE CHEMICALS & FERTILIZERS LTD	566.54	550.23	636.43
10	Shree Pushkar Chemicals & Fertilisers Ltd	49.62	76.03	579.46
11	JK Agri Genetics Ltd	15.48	18.99	206.86
12	KHAITAN CHEMICALS & FERTILIZERS LTD	86.91	86.6	152.76
13	BASANT AGRO TECH (INDIA) LTD	28.59	23.77	70.06
14	TEESTA AGRO INDUSTRIES LTD	27.73	25.65	15.12

**Source:** BSE (Bombay Stock Exchange) website for getting the data related to fertilizer sales.

These fourteen companies constitute the sample for study. Some of these companies deal in other products like chemicals besides fertilizers. These companies are required to report segment sales of various products. For these kinds of companies

Fertilizers sales data was collected from the segment wise results published by these companies.

A **paired t-test** was carried out to test if there is significant difference (decline) in the sales of quarter ended December 2016 (i.e.) when compared with quarter ended December 2015. This was done using Microsoft Excel and results obtained are tabulated below:

<b>t-Test: Paired Two Sample for Means</b>		
	<b>Fertilizer Sales for Quarter Ended Dec-2015 (Variable 1)</b>	<b>Fertilizer Sales for Quarter Ended Dec-2016 - After Demonetization (Variable 2)</b>
Mean	873.1155	722.9880714
Variance	878280.1529	636758.5091
Observations	14	14
Pearson Correlation	0.989009754	
Hypothesized Mean Difference	0	
df	13	
t Stat	2.968279315	
P(T<=t) one-tail	0.005441379	
t Critical one-tail	1.770933383	
P(T<=t) two-tail	0.010882757	
t Critical two-tail	2.160368652	

### Analysis and Conclusion

The t-statistic observed for the difference in quarterly sales mean (Sales of Qtr. Ended Dec 2015 minus the Sales of Quarter ended Dec 2016) is 2.968 which is above 1.77 ( $\alpha=0.05$ ). It is also found, that the probability of this difference less than 1% (it is 0.005%).

Based on the observed t-statistic value, the Null Hypothesis, There is no significant difference in sales of fertilizers for the Quarter ended Dec. 2016 vis-à-vis quarter ended Dec 2015, is rejected. The alternate hypothesis, The sales of fertilizers have significantly declined in quarter ended Dec.2016 when compared to quarter ended Dec. 2015, is found significant at 5% as well as 1% levels and is accepted (not rejected).

Note that a positive difference between sales of Qtr. Ended Dec-2015 and Qtr. Ended Dec-2016 implies a decline in sales.

This study finds that the decline in fertilizer sales of Qtr. ended Dec-2016 is significant when compared to sales corresponding to same Qtr. previous year (2015).

During Demonetization the Government tried to alleviate the pain of farmers by allowing seed co-operatives to accept old notes. However it appears this was not sufficient to address the concerns of farmers. The rules governing acceptance/exchange of old notes underwent several modifications frequently which created more confusion. At times these were reported in media but may not have been officially received by the stake holders who were dealing with the issue of exchange/acceptance of old currency notes.

To conclude it may be said that the Agriculture Sector was affected adversely due to Demonetization. This may not be a permanent

damage but has the potential to influence the food prices and inventory of grains and food stocks in the coming quarter or too. This could also impact the repayment of loan by the farmers. The lessons that could be learnt from current Demonetization are manifold. But one thing that comes out clearly is that even if Demonetization is to be done , an effective back up plan that alleviates the pain of farmers should be prepared and implemented while such 'large impact' decisions are made.

Further scope of the study, could be regarding steps/strategies that could be taken/made so that even if such tough decisions are taken, the adverse impact on crucial sectors of the economy could be minimized.

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# A Study of Relationship between Corporate Governance Ratings and Financial Performance of Selected Companies

Ramroop Sharma

## Abstract

The focal point of Corporate Governance (CG) is to protect the interests of stakeholders in particular equity holders. Studies on CG have developed CG Indices or sometimes CG practices are rated by rating agencies. CG ratings are not mandatory and companies are free to get rated. CG ratings allow companies to set benchmarks for their internal strengths and processes. Ratings also help companies to distinguish themselves from others in competitive markets. The benefits of ratings are expected to accrue to stakeholders. Companies having high CG rating can also be expected to have a good financial performance. Ultimately, it is financial performance that is going to create value for stakeholders, particularly the owners. The main objective of this paper is to study the relationship between CG ratings viz., Governance and Value Creation (GVC) ratings and financial performance based on accounting measures of eight companies rated by CRISIL Limited. Secondary data have been used for the study which contains analytical research. The findings suggest that there is an association between CG ratings and financial performance.

## Introduction

The relation between CG and organizational performance is of fundamental importance to stakeholders and regulators. CG ratings are good indicators but not a complete solution to governance problems (Choudhury). CG ratings cover quantitative and qualitative factors. Unlike qualitative factors, quantitative factors are easy to measure. The effectiveness of CG ratings depends on effective measurement of quantitative and in particular qualitative aspects of CG. For example, quality of Board interaction, active role of Independent Directors, ability to ask probing questions at Board meetings and so on. Therefore, CG ratings provided by credit rating companies may contain significant measurement errors and may be unreliable when making strategic decisions (Walker, 2013).

**Corporate Governance Regulations and Ratings** CG regulations prescribe compliance with provisions of CG per the Companies Act, 2013 and listing regulations. The Companies Act, 2013 and listing regulations i.e., Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 do not mandate CG ratings. CG ratings were first undertaken by CRISIL Limited, an associate of global ratings agency Standard and Poor's in 2003 (Roy, 2016). Later on, two other ratings agencies viz; Icria Limited and Credit Analysis and Research Limited (CARE) followed. Of the 4,700 listed firms, these three rating agencies have rated approximately 50 firms, but only 19 firms have disclosed their ratings in the public domain. Infosys Technologies Limited has been rated by Icria and CRISIL and has received the highest ratings from both the agencies. The key aspects for CG rating agencies generally include the ownership structure, governance structure and standards, management processes, board structure, relationship with the stakeholders, transparency and disclosures, financials and ethical practices.

## Review of Literature

This section includes three types of findings based on literature review: Firstly, those studies which have found a positive relationship between CG ratings and financial performance; Secondly, studies which have identified a negative relationship and lastly, studies which have no consensus or do not rely on such relationship.

Venkateswari et al (2016) concluded that governance ratings have positive and significant impact on corporate financial performance. The results of Treasury Working Paper 2009-02 (2009) illustrate that Return on Assets (ROA) is positively correlated with CG. Sridhar (2015) found that CG and corporate financial performance are linked and governance rating of a company has important positive effect on its financial performance. The results of the study by Baxter provide consistent evidence over the three years that companies with higher quality CG have higher levels of financial performance. Berthelot et al (2010) suggested that the CG rankings

published by the market information intermediary are related to not only the market value of firm, but also to accounting results. According to Roy, better governed firms provide a higher return on net worth and capital employed, and additionally their profit margins are relatively more stable.

Sengur found no significant difference in performance of CG Index companies and non CG Index companies in Turkey when performance was measured in terms of ROA. Gherghina (2015) did not find a statistically significant relationship between the governance global rating and firm value as proxied by ROA, Return on Equity (ROE), industry-adjusted. Vintilă and Gherghina (2012) identified a negative relationship between CG and firm performance, measured by accounting ratios. Peters and Bagshaw (2014) found no significant difference between the performances of firms with high CG scores compared and those with low CG scores. A study by Coskun and Sayilir (2012) does not seem to support the hypothesis that better CG is associated with higher firm values and better performance. According to Pandya (2013), CG has no significant influence on firm's profitability. Rob et al (2005), find a surprising, negative relationship exists between governance and ROE.

Katragadda (2013) says that there appears no consensus on whether CG, as a cluster of values, does indeed positively affect firm performance. What is certain is that some values of CG have individually been associated with high firm performance by some studies. According to Turco and Katrysh, relation between good CG practices and higher performance is not cent percent reliable.

Apparently, it can be observed from literature review there are many studies carried out on CG and financial performance in India. Most of the Indian studies have developed or used CG Index in the studies. However, in this study, CG ratings given by CRISIL Limited have been used to ascertain the relationship between CG ratings and financial performance. Though, a few similar studies are carried out elsewhere, regulatory and other environmental aspects differ from country to country. So, this study augments the body of research on CG.

### **Scope of the Study**

The scope of the study is limited to the financial year 2014-15.

### **Statement of Problem**

An inquiry into the association between CG ratings and financial performance of selected companies, if any.

### **Objectives of the Study**

To relate accounting measures of financial performance viz., Return on Equity (ROE) and Return on total Assets (ROA) to CG ratings of selected companies.

### **Operational Definitions**

**Corporate Governance Ratings:** The GVC ratings given by CRISIL Limited. A GVC rating by CRISIL Limited indicates the relative capability of a firm with respect to creating wealth for all its stakeholders, while adopting good CG practices. Such ratings measure creation of value amongst all stakeholders using a judicious mix of qualitative and quantitative aspects.

<b>CRISIL Rating Symbols for GVC Ratings</b>	
<b>CRISIL GVC Level-1</b>	The capability of firms rated CRISIL "GVC Level 1" with regard to Corporate Governance and value creation for all stakeholders is the highest.
<b>CRISIL GVC Level-2</b>	The capability of firms rated CRISIL "GVC Level 2" with regard to Corporate Governance and value creation for all stakeholders is very high.
Source: <a href="https://www.crisil.com/ratings/gvc-rating-list.html">https://www.crisil.com/ratings/gvc-rating-list.html</a>	

### **Financial Performance**

The reference is to financial outcomes measured by ROE and ROA which are accounting measures of financial performance.

#### **Return on Equity**

Return on equity is also known as Return on Net Worth or Shareholders Funds. This ratio shows earning power on shareholders' investment and is very much used in comparing two or more firms in

an industry. The objective of this ratio is to find out how efficiently the funds supplied by equity shareholders have been used. It measures profitability of equity funds invested in the firm. It is a very important measure because it shows efficiency of ownership capital. It is influenced by different factors such as earning power, debt-equity ratio, average cost of debt funds and tax rate. This ratio indicates a firm's ability of generating profit per rupee of shareholders funds. Higher the ratio,



more efficient is the management and utilisation of shareholders funds. The formula for computation of this ratio is: Profit after Tax / Average Total Equity x 100.

#### **Return on Total Assets**

This ratio measures relationship between Earnings before Interest and Tax and Average Total Assets. It is also known as earning power. The objective of this ratio is to find out how efficiently total assets have been used by the management. This ratio indicates a firm's ability to generate profit per rupee of total assets. Higher the ratio, more efficient is the management and utilisation of total assets. The formula for computation of this ratio is: Earnings before Interest and Tax / Average Total Assets x 100.

#### **Design of The Study**

The research design includes the following.

**Table 1: Sample Companies**

Sr. No.	Company	Sector	CRISIL GVC Ratings Level
1	Bharti Airtel Limited	Wireless Telecommunication Services	1
2	HDFC Bank Limited	Banks	1
3	Housing Development Finance Corporation Limited	Housing Finance Company	1
4	Infosys Limited	IT Services	1
5	Mahindra and Mahindra Limited	Industrial Conglomerates	1
6	Equitas Holdings Private Limited	Microfinance	2
7	Indian Farmers Fertilisers Co-operative Limited	Chemicals	2
8	Hero Motocorp Limited	Automobiles	1

Source: <https://www.crisil.com/ratings/gvc-rating-list.html>

#### **Sampling Method**

Judgmental sampling method was used for the study. This method is appropriate when the sample units conform to some pre determined criteria. In the given case all sample companies are rated by CRISIL limited as Level 1 or Level 2.

#### **Research Method**

The study is analytical in nature.

#### **Source and Type of Data**

Karim (1996) states that annual reports are important documents for assessing and analyzing the CG standards and compliance level of companies. Hence, secondary data were used for the study which were gleaned from annual reports of selected companies as well as from the website of CRISIL Limited.

#### **Sample**

The sample consists of eight companies which were rated by CRISIL Limited by way of GVC ratings level 1 and level 2. As these companies have comparable CG standards, it was decided to consider them for the study. The sample companies which pertain to different sectors are as follows.

#### **Tools for Data Analysis**

Data were analysed with the help of percentages and financial ratios. Chi-square Test was also used to ascertain the relationship between CG ratings and financial performance.

#### **Results**

#### **Findings**

**Table 2: Return on Equity (ROE)**

Company	Return on Equity in %
Bharti Airtel Limited	18.21
Hdfc Bank Limited	19.37
Housing Development Finance Corporation Limited	20.33
Infosys Limited	26.99
Mahindra and Mahindra Limited	18.43
Equitas Holdings Private Limited	00.25
Indian Farmers Fertilisers Co-operative Limited	09.65
Hero Motocorp Limited	39.30

Source: Computed from annual reports.

Note: Fractions are rounded off while calculating return on equity.



**Table 3:**  
**Observed Frequencies Classified with Respect to ROE**

CG Ratings	ROE		
	Low or Modest	High	Total
Very High	2	0	2
Highest	0	6	6
<b>Total</b>	2	6	8

**Table 4:**  
**Computed Expected Frequencies with Respect to ROE are shown in parentheses**

CG Ratings	ROE		
	Low or Modest	High	Total
Very High	2 (0.5)	0 (0.5)	2
Highest	0 (4.5)	6 (4.5)	6
<b>Total</b>	2	6	8

Chi-square = 7.51

With 1 degree of freedom and 0.05 level of significance the table value of Chi-square is 3.84. Our calculated Chi-square value is 7.51 which is higher than the table value. Hence, the null hypothesis is rejected and it is concluded that there exists an association between CG ratings and ROE.

**Table 5: Return on Total Assets (ROA)**

Company	Return on Total Assets in %
Bharti Airtel Limited	15.19
Hdfc Bank Limited	06.71
Housing Development Finance Corporation Limited	11.10
Infosys Limited	30.18
Mahindra and Mahindra Limited	13.65
Equitas Holdings Private Limited	00.50
Indian Farmers Fertilisers Co-operative Limited	09.26
Hero Motocorp Limited	33.90
Source: Computed from annual reports. Note: Fractions are rounded off while calculating return on total assets.	

**Table 6:**  
**Observed Frequencies Classified with Respect to ROA**

CG Ratings	ROA		
	Low or Modest	High	Total
Inferior	2	0	2
Superior	1	5	6
<b>Total</b>	3	5	8

**Table 7:**  
**Computed Expected Frequencies with Respect to ROA are shown in parentheses**

CG Ratings	ROA		
	Low or Modest	High	Total
Inferior	2 (0.75)	0 (0.75)	2
Superior	1 (3.75)	5 (3.75)	6
<b>Total</b>	3	5	8

Chi-square = 5.27

With 1 degree of freedom and 0.05 level of significance the table value of Chi-square is 3.84. Our computed Chi-square value is 5.27 which is higher than the table value. Hence, the null hypothesis is rejected and it is concluded that there exists association between CG ratings and ROA.

### Conclusions

There exists an association between CG ratings and financial performance of selected companies using accounting measures of financial performance. The findings are in consonance with other studies as mentioned in literature review. The finding suggests that improving CG ratings are reflected in better financial performance. The study therefore makes a contribution to the existing literature and will be of value to investors, sample companies, regulators and other stakeholders in assessing the extent to which CG ratings have financial and managerial implications.

### Limitations of The Study

The results of the study should be considered in the view of limitations such as sample size, period of study and implicit assumption about the soundness of the methodology underlying CRISIL's GVC ratings. Moreover, the study is based on only accounting measures of financial performance. During inflation, accounting measures of financial performance lead to an upward bias in profitability measures because the numerator represents current values whereas the denominator represents historical values.

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# Indian Automobile Industry – A Study on Financial Performance of Maruti Suzuki India Limited

Sangita Mishra

## Abstract

Indian Automobile Industry has flourished and is going through a rapid change and high growth after economic liberalization in 1990s like never before. The major competitors in the automobile market in India include Maruti Suzuki India Limited, Tata Motors Limited, Hero MotoCorp Limited, Mahindra and Mahindra Limited, Bajaj Auto Limited, etc. Maruti Suzuki India Limited (MSIL), commonly referred to as Maruti and formerly known as Maruti Udyog Limited was the first and the most successful in the automotive industry beginning in the 1980s. Maruti Suzuki India Limited is a leading automobile manufacturer and the market leader in the car segment both in terms of volume of vehicles sold and revenue earned. Thus, due to competitive position of MSIL in the automotive industry, researcher found interesting to examine the financial health of MSIL in the domestic market.

Present study exclusively focuses on the financial information which will help the stakeholders to know the actual position and performance of Indian Automobile Industry as a whole and Maruti Suzuki India Limited in particular. The research paper is an attempt to analyze the financial performance of Maruti Suzuki India Limited by using financial performance parameters highlighting low and high performance of profitability, liquidity, solvency and efficiency. The study is based on secondary data for a time period of ten years from 2005-06 to 2014-15 to draw the inferences.

## Introduction

The automobile industry has always been a barometer for the economic strength of a nation. One of the fastest growing sectors in India is the automobile industry. High demand for cars, two wheelers and other vehicles has driven the growth of the automobile sector. Thus, in India, automotive is one of the largest industries showing impressive growth and has been significantly making increasing contribution to overall industrial development.

Financial performance is a yardstick to measure financial and operational efficiency of the firm and financial analysis is a process of selection, relation, comparison and evaluation of financial position of a firm. One of the most important widely used powerful tools to examine financial position and performance is Ratio Analysis. Financial ratios are an excellent and scientific way to analyze firm's financial position. They are important and widely used indicators in absolute figures for assessing and evaluating financial performance of a firm and the industry as a whole.

## Indian Automobile Industry

A potential automotive industry emerged in India in 1940s. Mahindra & Mahindra was established by two partners as a trading company in 1945. In 1947, Government of India and private sector launched efforts to create an automotive manufacturing industry, wherein the growth was slow in 1950s and 1960s. Due to total restriction for import of vehicles was set, the automotive industry started to grow after 1970, but the growth was mainly driven by tractors, commercial vehicles and scooters, while cars were still a major luxury. Maruti Udyog Limited saw the entry in the passenger car segment in collaboration with Suzuki of Japan during the decade of 1985 to 1995. Till 1990s, the automotive industry in India was primarily dominated by Maruti Suzuki, Tata Motors, Hindustan Motors and Premier Padmini in the passenger car segment. Ashok Leyland, Tata Motors and Mahindra & Mahindra dominated in the commercial vehicle segment while Bajaj auto dominated in the two-wheeler segment. After economic reforms took place in 1991 in India, in the mid 1990s, automotive industry started opening up.

Table – 1: Interesting Facts about Indian Automobile Industry

1.	9 <sup>th</sup> largest Automobile Industry
2.	4 <sup>th</sup> largest commercial vehicle market in the world
3.	2 <sup>nd</sup> largest two wheeler manufacturer in the world
4.	2 <sup>nd</sup> largest tractor and three wheeler manufacturer in the world
5.	11 <sup>th</sup> largest passenger car market in the world
6.	Annual production of over 2.3 million units
7.	Monthly sales of passenger cars in India exceed 1,00,000 units
8.	Mahindra is 3 <sup>rd</sup> largest tractor manufacturer in the world
9.	Contributes about 4% in India's Gross Domestic Product (GDP)
10.	5% in India's industrial production
11.	Generated about 4.5 lakh of direct employment
12.	About 1 crore of indirect employment
13.	Establishment of competitive Auto Ancillary Industry. Automobile Testing and R & D centres.
14.	First car ran on India's roads in 1897
15.	Till 1930s, cars were imported directly

**Source:** Indian Brand Equity Foundation (IBEF).

During the period from April 2000 to February 2015, the Automobile Industry has attracted FDI of US \$ 12,232.06 million as per the data announced by Department of Industrial Policy and Promotion (DIPP). The Government of India (GOI) support, encourage and allows 100% FDI in Automobile sector. Excise duty on Automobile reduced from 12% to 8% to boost the 'Make in India'. Also Indian government has taken various initiatives to make Indian market as a leader in two and four wheeler market, worldwide by 2020.

### **Review of Literature**

**Indumathi, C. and Palanivelu, P. (2013)**, in their study made an attempt to evaluate the profitability and financial position of selected textile companies from the year 2001 to 2010. The study resulted that overall financial performance of selected textile companies was not stable. The study suggested to strengthen the financial position, companies should try to use their operating assets properly and minimize their non-operating expenses.

**Ray, Sarbapriya (2012)**, in the study tried to evaluated the performance of Indian Automobile Industry in terms of various financial indicators, sales trend, production trend, export trend, etc. for the period of 2003-04 to 2009-10. The results of the study stated that automobile industry was passing through turbulent phases characterized by enhanced debt burden, low utilization of assets and huge liquidity crunch. The study suggested to improve labour productivity, labour flexibility and capital efficiency for its success.

**Dangwal and Kapoor (2010)**, in their study evaluated the financial performance of nationalized banks in India and assessed the growth index value of various parameters through overall profitability indices. The data for 19 nationalized banks, for the post-reform period from 2002-03 to 2006-07, was used to calculate the index of spread ratios, burden ratios and profitability ratios. They found that four banks had excellent performance, five achieved good performance, four attained fair performance and six had poor performance.

**Ved, Pal and Malik (2007)**, in their empirical paper examined the difference in financial characteristics of public, private and foreign sector banks based on factors such as profitability, liquidity, risk and efficiency. Sample of 74 Indian commercial banks

consisting of 24 public sector, 24 private sector and 23 foreign banks was taken for the period from 2000 to 2005. Multinomial regression analysis was used and results revealed that foreign banks proved to be high performer in generating business with a given level of resources and they are better equipped with managerial practices and in terms of skill and technology. Foreign banks were more consistent with market system as reflected in terms of net interest margin. The public banks emerged as the next best performer after foreign banks. Public banks were giving a higher return on equity in comparison to foreign and private banks. It was high performer in economizing their expenses which was reflected from expense rate and efficiency ratio. The private sector banks emerged with a better use of resources as compared to public sector banks.

### **Objectives of The Study**

The main focus of the present research paper is to evaluate, analyze and interpret the financial performance of Maruti Suzuki India Limited (MSIL).

1. To examine the profitability, liquidity, solvency and efficiency position of MSIL.

### **Sampling Method**

The study is based on convenience sampling method.

### **Period of The Study**

The period of the study is covered for ten years from 2005-2006 to 2014-2015.

### **Data Collection**

The study is mainly based on secondary data. The essential data for this study have been collected from the annual reports of MSIL and Society of Indian Automobile Manufacturing (SIAM).

### **Tools For Analysis**

As per the nature of the study following tools were used:

- Accounting tool: Ratio Analysis
- Statistical tool: Mean, Standard Deviation (SD), Coefficient Variance (CV) and Compound Annual Growth Rate (CAGR)

### **Financial Performance Parameters**

The paper mainly concentrates on financial performance parameters viz., profitability ratios, liquidity ratios, solvency ratios and efficiency ratios.



Profitability Ratios	Liquidity Ratios	Solvency Ratios	Efficiency Ratios
<ul style="list-style-type: none"> <li>Gross Profit Ratio (GPR)</li> <li>Net Profit Ratio (NPR)</li> <li>Operating Profit Ratio (OPR)</li> <li>Return on Capital Employed (ROCE)</li> <li>Return on Net Worth (RONW)</li> <li>Return on Assets (ROA)</li> </ul>	<ul style="list-style-type: none"> <li>Current Ratio (CR)</li> <li>Liquidity Ratio (LR)</li> </ul>	<ul style="list-style-type: none"> <li>Debt-Equity Ratio (DER)</li> <li>Long Term Debt to Equity Ratio (LTDER)</li> </ul>	<ul style="list-style-type: none"> <li>Inventory Turnover Ratio (ITOR)</li> <li>Debtors Turnover Ratio (DTOR)</li> <li>Fixed Assets Turnover Ratio (FATOR)</li> <li>Total Assets Turnover Ratio (TATOR)</li> <li>Assets Turnover Ratio (ATOR)</li> </ul>

### Overview of Maruti Suzuki India Limited

Maruti Suzuki India Limited formerly Maruti Udyog Limited started in 1982 in Gurgaon(Haryana), is a publicly listed company in India. It is largely credited for having brought in an automobile revolution in India. It is a leading four-wheeler family car manufacturer in South-Asia. The old logo was only of Maruti Udyog Limited, later the logo of Suzuki Motor Corporation was added to it. MSIL is one of India's leading manufacturers and the market leader in the car segment, both in terms of

volume of vehicles sold and revenue earned. 18.28% shares of the company is owned by the government and 54.2% controlling stake is with the Suzuki Motor Corporation of Japan. Some of Maruti's most popular cars are: Alto, Gypsy, Omni, Wagon R, Maruti 800, Versa, Zen, Esteem, Baleno and Swift. In 2014-15, MSIL produced overall 13,08,446 vehicles, and sold 12,92,415 vehicles and exported 1,21,713 vehicles. Sales of vehicles in the domestic market were 11,70,702 units in 2014-15.

### Performance Evaluation of Indian Automobile Industry

#### 1. Automobile Production Trends in India

**Table – 2: Automobile Production Trends in India during 2005-06 to 2014-15**

Year	Passenger Vehicles	Commercial Vehicles	Three Wheelers	Two Wheelers	Grand Total
2014-15	32,20,172	6,97,083	9,49,021	1,84,99,970	2,33,66,246
2013-14	30,87,973	6,99,035	8,30,108	1,68,83,049	2,15,00,165
2012-13	32,31,058	8,32,649	8,39,748	1,57,44,156	2,06,47,611
2011-12	31,46,069	9,29,136	8,79,289	1,54,27,532	2,03,82,026
2010-11	29,82,772	7,60,735	7,99,553	1,33,49,349	1,78,92,409
2009-10	23,57,411	5,67,556	6,19,194	1,05,12,903	1,40,57,064
2008-09	18,38,697	4,17,126	5,01,030	84,18,626	1,11,75,479
2007-08	17,77,583	5,49,006	5,00,660	80,26,681	1,08,53,930
2006-07	15,45,223	5,19,982	5,56,126	84,66,666	1,10,87,997
2005-06	13,09,300	3,91,083	4,34,423	76,08,697	97,43,503
CAGR	9.42	5.95	8.13	9.29	9.14
Average	24,49,626	6,36,339	6,90,915	1,22,93,763	1,60,70,643
S.D.	7,69,763	1,76,844	1,87,612	41,55,467	52,24,427
C.V.	31.42	27.79	27.15	33.80	32.51

**Source:** Society of Indian Automobile Manufacturers (website: [www.siamindia.com](http://www.siamindia.com)).

The descriptive statistics viz., CAGR, average, S.D. and C.V. related to automobile production in India are presented in table – 2. The analysis of the ten year data found that production efficiency of Indian automobile industry increased year-by-year during the study period. It is reflected from the production figures of the industry that production raised from 97,43,503 vehicles in 2005-06 to 2,33,66,246

vehicles in 2014-15 with a CAGR amounting to 9.14% during the observation period. The average growth in vehicles production was observed 1,60,70,643 units over a study decade. The highest CAGR 9.42% was registered in production of passenger vehicles while lowest 5.95% was witnessed in production of commercial vehicles.

## 2. Automobile Domestic Sales Trends

**Table – 3: Automobile Domestic Sales Trends in India during 2005-06 to 2014-15**

Year	Passenger Vehicles	Commercial Vehicles	Three Wheelers	Two Wheelers	Grand Total
2014-15	26,01,111	6,14,961	5,31,927	1,60,04,581	1,97,52,580
2013-14	25,03,509	6,32,851	4,80,085	1,48,06,778	1,84,23,223
2012-13	26,65,015	7,93,211	5,38,290	1,37,97,185	1,77,93,701
2011-12	26,29,839	8,09,499	5,13,281	1,34,09,150	1,73,61,769
2010-11	25,01,542	6,84,905	5,26,024	1,17,68,910	1,54,81,381
2009-10	19,51,333	5,32,721	4,40,392	93,70,951	1,22,95,397
2008-09	15,51,880	3,84,122	3,49,719	74,37,670	97,23,391
2007-08	15,49,882	4,90,494	3,64,781	72,49,278	96,54,435
2006-07	13,79,979	4,67,765	4,03,910	78,72,334	1,01,23,988
2005-06	11,43,076	3,51,041	3,59,920	70,52,391	89,06,428
CAGR	8.57	5.77	3.98	8.54	8.29
Average	20,47,717	5,76,157	4,50,833	1,08,76,923	1,39,51,629
S.D.	5,96,946	1,58,687	76,622	34,70,242	42,36,990
C.V.	29.15	27.54	17.00	31.90	30.37

**Source:** Society of Indian Automobile Manufacturers (website: [www.siamindia.com](http://www.siamindia.com)).

Table – 3 illustrated the descriptive statistics i.e. CAGR, average, S.D. and C.V. regarding domestic sales trend of Indian automobile. The total domestic sales figure of the automobile industry showed almost increasing trend under the study period. The study exhibited that domestic sales of different vehicles increased from 89,06,428 vehicles in 2005-06 to 1,97,52,580 vehicles in 2014-15 with a CAGR

amounting to 8.29% over the study period. The average domestic sales of Indian automobile was registered 1,39,51,629 units under the observation study decade. In case of domestic sales, the highest CAGR 8.57% was marked for passenger vehicles while lowest 3.98% was accounted for three-wheeler vehicles.

## 3. Automobile Export Trends

**Table – 4: Automobile Export Trends in India during 2005-06 to 2014-15**

Year	Passenger Vehicles	Commercial Vehicles	Three Wheelers	Two Wheelers	Grand Total
2014-15	6,22,470	85,782	4,07,957	24,57,597	35,73,806
2013-14	5,96,142	77,050	3,53,392	20,84,000	31,10,584
2012-13	5,59,414	80,027	3,03,088	19,56,378	28,98,907
2011-12	5,08,783	92,258	3,61,753	19,75,111	29,37,905
2010-11	4,44,326	74,043	2,69,968	15,31,619	23,19,956
2009-10	4,46,145	45,009	1,73,214	11,40,058	18,04,426
2008-09	3,35,739	42,673	1,48,074	10,04,174	15,30,660
2007-08	2,18,401	58,994	1,41,225	8,19,713	12,38,333
2006-07	1,98,452	49,537	1,43,896	6,19,644	10,11,529
2005-06	1,75,572	40,600	76,881	5,13,169	8,06,222
CAGR	13.49	7.77	18.16	16.96	16.06
Average	4,10,544	64,597	2,37,945	14,10,146	21,23,233
S.D.	1,68,751	19,421	1,15,103	6,83,079	9,76,918
C.V.	41.10	30.07	48.37	48.44	46.01

**Source:** Society of Indian Automobile Manufacturers (website: [www.siamindia.com](http://www.siamindia.com)).

Descriptive statistics i.e. CAGR, average, S.D. and C.V. with respect to exports of Indian automobile industry is described in table – 4. The export performance of Indian automobile industry has exhibited increasing growth except for the year 2012-13 under the study period. Exports of commercial vehicles, three-wheelers and two-wheelers declined during the year 2012-13. Export figures accounted that exports made by Indian automobile industry of different vehicles rose from

8,06,222 vehicles in 2005-06 to 35,73,806 vehicles in 2014-15 with a CAGR amounting to 16.06% continuing to charm overseas buyers during the study period. The average exports of Indian automobile was observed 21,23,233 units for the study period. Gaining acceptance as a global hub for exports, the highest CAGR 18.16% was observed for three-wheeler vehicles while lowest 7.77% was reported for commercial vehicles during the reference period.

**Performance Evaluation of Maruti Suzuki India Limited**

- (A) **Profitability Analysis:** Profitability indicates company's efficiency to manage the resources and generate profit for its stakeholders.

**Table – 5: Profitability Ratios of MSIL for the period from 2005-06 to 2014-15**

Year	GPR	NPR	OPR	ROCE	RONW	ROA
2014-15	8.49	7.42	13.43	21.24	15.65	784.70
2013-14	6.89	6.36	11.66	16.91	13.26	694.45
2012-13	5.43	5.48	9.70	15.92	12.87	615.03
2011-12	3.86	4.59	7.06	13.53	10.76	525.68
2010-11	7.16	6.24	9.93	22.32	16.50	479.99
2009-10	9.93	8.51	12.74	27.89	21.10	409.65
2008-09	5.77	5.87	9.18	17.37	13.04	323.45
2007-08	10.97	9.34	14.12	26.18	20.56	291.28
2006-07	16.66	10.29	14.88	30.65	22.79	237.23
2005-06	16.95	9.53	15.29	33.46	21.81	188.73
High	16.95	10.29	15.29	33.46	22.79	784.70
Low	3.86	4.59	7.06	13.53	10.76	188.73
Average	9.21	7.36	11.80	22.55	16.83	455.02
CAGR	-6.68	-2.47	-1.29	-4.44	-3.26	15.32

**Source:** Computed from the Annual Reports of MSIL for the period from 2005-06 to 2014-15.

The results of various profitability ratios of MSIL are analyzed and exhibited in table – 5. Considering profitability ratios, the highest ratio 33.46% was witnessed for return on capital employed in 2005-06 while lowest ratio 3.86% was observed for gross profit ratio in 2011-12. Average profitability ratios of MSIL was having highest mean of 455.02% for return on assets and lowest average 7.36% for net profit ratio. Further, the highest CAGR 15.32% was marked for return on assets while lowest CAGR -6.68% was registered for gross profit ratio. Profitability analysis concluded that CAGR in terms of gross profit, net profit, operating profit, return on capital employed, and return on net worth was negative indicating unsatisfactory growth. The CAGR in case of return on assets was only positive indicating that MSIL is better in managing its assets. The overall profitability position of MSIL was found unsound. This implies managerial inefficiency in controlling excessive selling and distribution expenses, administrative expenses, operating cost and cost of goods sold.

- (B) **Liquidity Analysis:** Liquidity analysis attempts to analyze the firm's ability to meet its immediate maturing short-term obligations.

**Table – 6: Liquidity Ratios of MSIL for the period from 2005-06 to 2014-15**

Year	CR	LR
2014-15	0.68	0.41
2013-14	0.77	0.67
2012-13	1.04	0.90
2011-12	1.13	1.03
2010-11	1.57	1.26
2009-10	0.91	0.68
2008-09	1.51	1.26
2007-08	0.91	0.66
2006-07	1.40	1.13
2005-06	1.77	1.31
High	1.77	1.31
Low	0.68	0.41
Average	1.17	0.93
CAGR	-9.12	-10.97

**Source:** Computed from the Annual Reports of MSIL for the period from 2005-06 to 2014-15.

Table – 6 exposed the results of various liquidity ratios of MSIL. Observing liquidity ratios, the highest ratio 1.77% was evaluated for current ratio while lowest ratio 1.31% was marked for liquid ratio, in 2005-06. Looking to average of liquidity ratios, MSIL was having highest mean of 1.17% for current ratio and lowest average 0.93% for liquid ratio. Moreover, the highest CAGR -9.12% (though negative) was reported for current ratio while lowest CAGR -10.97% (though negative) was marked for liquid ratio. Liquidity analysis fulfilled that CAGR in terms of current ratio and liquid was negative

signifying the growth as not satisfactory. Varied variations were found for current ratio and liquid ratio when compared to standard ratio of 2:1 and 1:1 respectively. Thus according to the standard norms, when liquidity results are analyzed in most of the years under observation period, it is interpreted that MSIL has experienced difficulty in the repayment of its current liabilities. Also the study entails that MSIL was not able to maintain sufficient liquid assets to pay off its current liabilities out of its liquid assets.

- (C) **Solvency Analysis:** Solvency analysis gives an idea about the degree of risk caused as a result of debt financing.

**Table – 7: Solvency Ratios of MSIL for the period from 2005-06 to 2014-15**

Year	DER	LTDER
2014-15	0.01	0.01
2013-14	0.08	0.02
2012-13	0.07	0.03
2011-12	0.07	----
2010-11	0.01	0.01
2009-10	0.07	0.04
2008-09	0.07	0.07
2007-08	0.11	0.06
2006-07	0.09	0.09
2005-06	0.01	0.01
High	0.11	0.09
Low	0.01	0.01
Average	0.06	0.04
CAGR	0.00	0.00

**Source:** Computed from the Annual Reports of MSIL for the period from 2005-06 to 2014-15.

Table – 7 rendered the results of various solvency ratios of MSIL for the study period. When solvency ratios were examined, the highest ratio 0.11% was observed for debt-equity ratio in 2007-08 while lowest ratio 0.09% was registered for long term debt-equity ratio in 2006-07. Observing average of solvency ratios, MSIL was having highest mean of 0.06% for debt-equity ratio and lowest average 0.04% for long term debt-equity ratio. Moreover, the CAGR reported was NIL for debt-equity ratio

and long term debt-equity ratio over the reference period. Analyzing further, in all the years, debt-equity ratio and long term debt-equity ratio was less than the standard norm of 2:1 during the study period which signals good solvency situation for MSIL. Finally, it implies that MSIL has the ability to repay the debts and the creditors of MSIL has large margin of safety against all possible losses in case of liquidation of the company.

- (D) **Efficiency Analysis:** Efficiency of a company lies in making optimum utilization of the assets of the company. Improvement in efficiency ratios usually translate to improved profitability.

**Table – 8: Efficiency Ratios of MSIL for the period from 2005-06 to 2014-15**

Year	ITOR	DTOR	FATOR	TATOR	ATOR
2014-15	21.08	40.24	1.94	2.12	2.15
2013-14	28.65	30.31	1.96	1.94	2.05
2012-13	26.67	36.21	2.25	2.21	2.41
2011-12	19.81	40.39	2.46	2.22	2.35
2010-11	25.88	44.81	3.14	2.62	2.74
2009-10	30.47	33.92	2.82	2.32	2.58
2008-09	30.46	26.33	2.38	2.06	2.14
2007-08	22.93	25.76	2.48	1.94	2.15
2006-07	21.27	21.12	6.32	1.98	2.28
2005-06	14.15	19.45	6.59	2.21	2.39
High	30.47	44.81	6.59	2.62	2.74
Low	14.15	19.45	1.94	1.94	2.05
Average	24.14	31.85	3.23	2.16	2.32
CAGR	4.07	7.54	-11.51	-0.41	-1.05

**Source:** Computed from the Annual Reports of MSIL for the period from 2005-06 to 2014-15.

The results of various efficiency ratios of MSIL for observation period are presented in table – 8. From the observation of efficiency ratios, the highest ratio 44.81% was depicted for debtors' turnover ratio in 2010-11 while lowest ratio 1.94% was respectively

marked for fixed assets turnover ratio in 2014-15 and total assets turnover ratio in 2013-14. Further, MSIL was having highest mean of 24.14% for inventory turnover ratio and lowest average 2.16% for total assets turnover ratio. Negative CAGR was

registered for fixed assets turnover ratio, total assets turnover ratio and assets turnover ratio during the study period, which signalizes unsound efficiency position for MSIL. Finally, it implies that fluctuation in some of the efficiency ratios is minute which may not impact MSIL's economy while in some ratios varied fluctuation is observed which may impact its liquidity to a great extent.

### **Recommendations**

MSIL is doing well in leading growth and expansion. It is recommended that there is a need for MSIL to take care to work with consistency, adopt better market strategy, to face great competition by reducing cost and revising selling prices among the different automobile players in order to grab the opportunities of growing demands in the domestic and global market.

### **Conclusion**

Globalization is pushing major automobile players to consolidate, to upgrade technology, enlarge product range, access new markets and cut costs. Also wheels of development across the globe would have to be powered by the Indian automobile industry by making efforts to access the latest and efficient technology, making rapid improvement in infrastructure, increasing purchasing power, huge domestic market, improving productivity in labour and establishing cost competitiveness.

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# An Impact of Financial Restructuring on Profitability and Liquidity: A Study With Reference To Selected Indian Companies

Ghanshyamsinh Parmar

## Abstract

Corporate financial restructuring is aimed at increasing efficiency, achieving growth and improving firm value. At present time, technological changes, cut-throat competition, globalization and economical changes have boosted the Indian firms to opt for restructuring strategies. The aim of present study is to determine whether any significant change has occurred after financial restructuring was undertaken. The sample consists of four (4) cases from BSE or NSE listed companies which involves in financial restructuring through merger and acquisition from financial year 2009- 2010. To make comparative analysis, financial ratios and their means have been calculated for pre merger acquire and target company and post merger acquiring company to the period from 2004- 05 to 2014-15 excluding merger year. The paired sample t-test at 95% confidence level had been used to test hypothesis. The result of study reveals that net profit ratio, return on shareholder's fund ratio, current ratio and working capital ratio were decreased after restructuring activity but this decrease is statistically insignificant while return on capital employed ratio shows mixed picture of restructuring activity but statistically it is insignificant. Finally it concludes that financial restructuring did not successfully increase financial performance in terms of profitability and liquidity of sample companies.

## Introduction

After globalization, the Government of India has adopted the new industrial policy and structural adjustment program for business houses. It allowed companies to undertake without restriction any program of expansion either by entering into a new market or through expansion in an existing market. On other hand, changes in corporate accounting aspects have increased the responsibility of Indian companies in order to deliver superior performance. In that context, Indian business houses are increasingly using restructuring activity means to growth and expansion. Corporate restructuring is broadly divided into two parts: financial restructuring and operational restructuring. Financial restructuring involve restructuring the assets and liabilities of corporations, in order to promote efficiency, support growth, maximize the value to shareholders, creditors and other stakeholders. Financial restructuring transaction includes merger, acquisition, tender offer, joint ventures, strategic alliance, demerger etc. A number of Indian companies have agreed for financial restructuring through above alternatives.

## Review of Literature

Review of literature has been carried out in order to better understanding in the area of corporate financial restructuring through mergers

**Jin, Dehuan, and Zhigang (2004)** examined the impact of restructuring on the operating performance of publicly traded firms in China. The study was determined whether restructuring resulted in significant changes or not. They used ratio analysis for investigates the impact of restructuring. Their study result reveal that there were significant improvements in total revenue, profit margin, and return on assets due to restructurings event but there was no evidence of any significant impact on asset turnover ratio. His finding also shows significant market anticipation and over reaction to the restructuring announcements.

**Mantravadi and Reddy (2008)** to examine the impact of merger on the operating performance of acquiring corporate in different industries. The sample firms have chosen as all mergers involving public limited and traded companies in India from 1991 to 2003. They measured the operating performance through ratio analysis. The result of study shows that there were minor variations in terms of impact on operating performance following mergers, in different industries in India. In particular, mergers seem to have a slightly positive impact on profitability of firms in the banking and finance industry, the pharmaceuticals, textiles and electrical equipment sectors show a marginal negative impact on profitability and returns on investment and assets. For the Chemicals and Agro-products sectors, mergers had caused a significant decline both in terms of profitability margins and returns on investment and assets.

**Indhumathi G. et. al,( 2011)** Their study concentrated to evaluate the financial performance in terms of profitability, liquidity, leverage and activity before and after merger. The sample of 18 companies selected on

the basis of which undergone mergers in the same industry during the study period from 01 April 2002 to 31 March 2005 in Bombay Stock Exchange. The pre merger average of acquire and target companies were compared with post merger performance of the acquiring (combined) firm to determine whether mergers resulted in increasing financial performance or not. The result of the study represent that profitability and activity variables were not improved after merger but shareholders of the acquirer companies were increased their wealth.

**Aruna.G and S.Nirmala(2013)** they examine that merger led to a profitable situation or not. The study is based on secondary data and result obtains from two cases of merger and acquisitions which randomly taken as sample. For the pre (3 years before) merger the combined ratios of both banks are considered and for the post merger (after 3 years) the ratios of acquiring bank were used for compare financial performance. The Paired sample T- test is being employed for testing of hypothesis. The study indicates that the merger of banks has been beneficial to the equity share holders and the performance and efficiency of banks have increased after the merger

**K. B. Singh (2013)** to examine the profitability of merged companies by comparing key financial ratios during pre and post merging year. The final sample size for the study was 20 public listed companies from a total of 58 companies which have undergone M&A during year 2005. Ratio analysis is used for analysis. The Paired sample t- test is being employed for testing of hypothesis. The study found that there was an increase in both the profitability ratios and returns on net worth and invested capital after mergers. Finally concluded that operating financial performance of all the sample firms had increased after mergers.

### **Objective of The Study**

The purpose of this study is to assess the impact of financial restructuring by mergers and acquisitions on the profitability position and liquidity position of the selected Indian companies.

### **Research Methodology**

#### **Sample Selection**

The four cases of financial restructuring companies have been randomly taken as samples which were undergone through merger and acquisition from financial year 2009- 2010. The sample companies

are listed on BSE or NSE during the period of study.

#### **Period of the Study**

For accomplishing the study objective, data of sample companies has been required for the period of 10 year which covers five years before and five years after merger and acquisition The study period has been from financial year 2004 - 05 to 2014 - 15 excluding event years 2009 - 10.

#### **Sources of Data**

The present study basically depends on secondary data. The research objectives require data has been collected from Ace Equity and company's website. The additional information has also collected from articles in journals and magazines, Reference books, newspapers and related websites

#### **Data Analysis**

The cases of financial restructuring have been randomly taken as sample which was undergone through merger and acquisition from financial year 2009- 2010. Ratio analysis is used to investigate the financial performance. For the pre (5 years before) merger the combined ratios of both companies are considered and for the post merger (after 5 years) the ratios of acquiring company are used. The selected financial ratios mean are compared for The pre merger (5years prior) and post merger (after 5 years) period of sample. To know whether there is significant difference in the mean of financial ratios pre and post merger, the paired sample t-test at 95% confidence level (df-7) is applied using SPSS- 21.

#### **Hypothesis**

On the basis of above objectives, the following hypothesis has been developed

Null Hypothesis (H<sub>0</sub>)

H<sub>0</sub>: There is no significant difference in profitability position of selected Indian companies between pre and post merger period.

H<sub>0</sub>: There is no significant difference in liquidity position of selected Indian companies between pre and post merger period.

Alternate Hypothesis (H<sub>1</sub>)

H<sub>1</sub>: There is significant difference in profitability position of selected Indian companies between pre and post merger period.

H<sub>1</sub>: There is significant difference in liquidity position of selected Indian companies between pre and post merger period.

**Table 1: list of sample cases**

Type of case	Buyer(Acquirer) company	Target company	Merger Date
case 1	Mindtree Ltd. (MTL)	Aztecsoft Ltd. (AZL)	30-Jun-09
case 2	Ess Dee Aluminium Ltd ( ESD)	India Foils Ltd (IFL)	26-Feb-10
case 3	United Spirits Ltd ( USL)	Shaw Wallace & Company Ltd.(SWL)	24-Jul-09
case 4	Titagarh Wagons Ltd ( TWL)	Titagarh Steels Ltd.(TSL)	12-May-09

Source : Ace Equity

### Analysis of Financial Information

Analysis is based on the following financial ratio

- Net Profit Ratio (Profit before Interest and Tax (PBIT)/ Net Sales)
- Return on Capital Employed (Profitbefore Interest and Tax (PBIT)/Capital Employed)
- Return on return on shareholder fund (Profit after Tax/ Shareholder fund )
- Current Ratio ( CurrentAssets/ Current Liabilities)
- Working Capital Ratio (Working Capital/ TotalAssets )

**Table -2: Pre and post merger Net profit ratio of sample cases**

NET PROFIT		PRE MERGER PERIOD							POST MERGER PERIOD					
Type of Cases	Name of companies	2004-05	2005-06	2006-07	2007-08	2008-09	Mean	Combina Mean	2010-11	2011-12	2012-13	2013-14	2014-15	Mean
case 1	MTL	6.85	12.08	15.25	14.20	2.96	10.27	11.10	8.16	11.42	14.35	14.88	15.06	12.77
	AZL	17.85	15.78	15.73	7.56	2.79	11.94							
case 2	ESD	0.94	15.04	19.63	22.00	16.55	14.83	-15.49	16.64	9.50	11.11	7.47	3.93	9.73
	IFL	-40.30	-7.80	-14.01	-16.56	-150.41	-45.82							
case 3	USL	2.31	2.05	18.16	9.81	7.25	7.92	18.06	6.05	4.52	3.83	-59.92	-24.31	-13.96
	SWL	-22.11	40.56	59.39	34.97	N.A	28.20							
case 4	TWL	6.77	10.70	10.36	10.82	9.45	9.62	5.85	12.21	11.89	4.78	1.44	2.62	6.59
	TSL	-1.93	13.17	4.81	0.45	-6.11	2.08							

Source: Computed from -Ace equity

Table no 2 shows a Net profit ratio of sample companies during pre and post merger period. It is clear from the table that after merger, the net profit ratio of Case 1 and Case 4 has increased from 11.11% and 5.85% respectively to 12.77%, and 6.59 % respectively. Moreover, Case 2 have increased net profit ratio from negative return -15.49 % to positive return 9.73 % during post merger due to control on

expenses after restructuring activities. During the study period, Case 3 has decrease in net profit from 18.06 % to -13.96 % in post merger period due to increases in employee cost, interest and general administrative expenses.

It can lead to conclusion that the net profit ratio is increased after restructuring.

Table – 3: Pre and post merger Return on Capital Employed ratio of sample cases

RETURN ON CAPITAL EMPLOYED		PRE MERGER PERIOD							POST MERGER PERIOD					
Type of cases	Name of companies	2004-05	2005-06	2006-07	2007-08	2008-09	Mean	Combinaid Mean	2010-11	2011-12	2012-13	2013-14	2014-15	Mean
case 1	MTL	13.49	30.23	20.32	19.30	7.71	18.21	15.98	19.63	28.08	33.00	35.74	34.36	30.16
	AZL	12.10	14.13	27.17	10.85	4.49	13.75							
case 2	ESD	5.14	34.70	15.19	18.08	19.83	18.59	-119.62	21.09	14.53	14.69	10.62	11.35	14.46
	IFL	-26.03	1.92	-8.40	-6.92	-1249.69	-257.83							
case 3	USL	8.07	9.22	26.45	19.52	13.12	15.28	24.85	15.30	15.03	15.29	-84.27	-38.43	-15.41
	SWL	4.93	55.27	51.98	25.49	N.A.	34.42							
case 4	TWL	38.62	23.93	38.22	25.98	26.51	30.65	20.92	24.25	19.56	8.04	1.86	3.36	11.41
	TSL	0.33	32.43	19.86	21.66	-18.30	11.20							

Source: Computed from -Ace equity

#### Analysis

Table no. 3 shows return on capital employed ratio of sample companies during pre and post merger period. Case 1 has improved their capital employed return from 15.98 % to 30.16% in post merger period. Moreover, Case 2 has negative return on capital employed -119.62% in pre merger period whereas it has increased to 14.46 % in post merger period. The remaining sample cases like Case 3 and

Case 4 have decline in capital employed from 24.85 % and 20.92% respectively to -15.41% and 11.41% respectively in post merger period due to increases other long term liabilities and provisions in business.

It is concluded that the return of capital employed is decreased in two cases namely, Case 3 and Case 4 after restructuring process where Case 1 and Case 2 is increased.

Table 4: Pre and post merger Return On Shareholder fund Ratio of sample cases

RETURN ON SHAREHOLDERS FUND		PRE MERGER PERIOD							POST MERGER PERIOD					
Type of Cases	Name of companies	2004-05	2005-06	2006-07	2007-08	2008-09	Mean	Combinaid Mean	2010-11	2011-12	2012-13	2013-14	2014-15	Mean
case 1	MTL	18.06	42.09	20.68	19.51	5.66	21.20	17.02	15.86	22.84	25.80	27.50	26.57	23.71
	AZL	11.97	14.18	24.04	9.81	4.19	12.84							
case 2	ESD	4.87	54.04	13.43	18.05	16.54	21.38	170.56	16.98	8.78	10.12	6.24	3.65	9.15
	IFL	107.82	13.99	23.60	18.23	1435.08	319.74							
case 3	USL	9.30	4.69	36.81	15.49	9.64	15.19	12.31	7.55	5.83	5.02	-133.77	-100.74	-43.22
	SWL	-146.02	82.61	65.43	35.70	N.A.	9.43							
case 4	TWL	37.62	20.65	30.25	18.57	16.55	24.73	21.85	15.28	12.24	3.73	0.59	1.56	6.68
	TSL	-2.36	90.00	32.67	3.22	-28.63	18.98							

Source: Computed from -Ace equity

#### Analysis

Table no. 4 shows a return on ratio of sample companies during pre and post merger period. During post merger period, Case 1 has increased

return on shareholder fund from 17.02% to 23.71% . The remaining sample cases like case 2 and case 4 shows decline in return on share holders fund from 170.56%, and 21.85% respectively to 9.15% and 6.68%, respectively in post merger period due to

improper utilization of share holders fund after merger or may be unfavorable business condition while Case 3 shows negative return(-43.22 %) in post merger period.

So, the researcher can conclude that return on share holders fund ratio is not increased after restructuring.

**Table no. 5 : Calculation of T- test**

RATIO	Pre merger (A)		Post merger (B)		Paried Differences (A-B)		DOF (n-1)	t cal.	t tab.	sig. (2 tail) 95 % c.l.	Result
	mean	Std. Dev.	Mean	Std. Dev.	mean	S.D.					
NPR	4.880	14.472	3.783	12.094	1.098	23.521	3	0.093	3.182	0.932	H0
ROCE	-14.468	70.196	10.155	18.920	-24.628	76.299	3	0.645	3.182	0.575	H0
RONW	55.435	76.849	-0.920	29.184	56.355	74.628	3	1.510	3.182	0.228	H0

Source : Researcher perspective with SPSS-21

Table no. 5 shows calculation of t –test for profitability ratio. The statements of the hypothesis are as under

H01: There is no significant difference in net profit ratio of selected Indian companies between pre and post merger period

H02: There is no significant difference in return on capital employed of selected Indian companies between pre and post merger period

H03: There is no significant difference in return on Shareholder's fund of selected Indian companies between pre and post merger period

From above table we can observed following results.

- The calculated value of ' t ' is 0.093 at 5% level of significance is less than table value 3.182 for net profit ratio i.e. t cal (0.093) < t tab (3.182) and sig (2 tailed ) value is greater than specified  $\alpha$  of 0.05 ( 0.932 > 0.05), Therefore

null hypothesis is accepted for net profit ratio.

- For the return on capital employed ratio, the calculated value of ' t ' is 0.645 at 5% level of significance is less than table value 3.182. i.e. t cal (0.645) < t tab (3.182) and sig (2 tailed ) value is greater than specified  $\alpha$  of 0.05 ( 0.575 > 0.05) .Therefore null hypothesis is accepted.
- At 5% level of significance, the calculated value of ' t ' is 1.510 to return on net worth which is less then table value of ' t ' is 2.365 i.e. t cal (1.510) < t tab (3.182) and sig (2 tailed ) value is greater than specified  $\alpha$  of 0.05 ( 0.228 > 0.05), Therefore null hypothesis is accepted for return on net worth

Finally, we can conclude that there is no significant difference in profitability position of selected Indian companies between pre and post merger period.

**Table 6 : Pre and post merger Current Ratio of sample cases**

CURRENT RATIO		PRE MERGER PERIOD							POST MERGER PERIOD					
Type of Cases	Name of companies	2004-05	2005-06	2006-07	2007-08	2008-09	MEAN	Combind Mean	2010-11	2011-12	2012-13	2013-14	2014-15	MEAN
case 1	MTL	3.00	3.02	4.73	3.48	1.45	3.14	2.82	2.98	2.37	3.12	3.34	3.05	2.97
	AZL	2.01	2.23	3.02	2.80	2.47	2.51							
case 2	ESD	2.10	2.56	4.81	6.52	3.35	3.87	2.35	1.84	1.65	1.82	1.47	1.04	1.56
	IFL	0.88	1.10	0.86	0.77	0.51	0.82							
case 3	USL	1.95	2.77	3.91	3.56	3.55	3.15	2.46	0.88	0.82	0.73	0.91	0.85	0.84
	SWL	1.17	1.52	1.53	2.89	N.A	1.78							
case 4	TWL	1.61	1.70	1.94	3.27	2.46	2.20	2.11	2.46	2.62	2.90	3.04	3.13	2.83
	TSL	3.65	2.33	1.72	1.32	1.06	2.02							

Source: Computed from -Ace equity



Table no. 6 shows a current ratio of sample companies during pre and post merger period. During post merger period, case 1 and case 4 have increased current ratio from 2.82 times, 2.11 times respectively to 2.97 times, 2.83 times respectively due to merger. It seems that companies have enough funds to pay its future liability in times. On other hand rest of the sample cases like Case 2 and Case 3

have decreased in current ratio from, 2.35 and 2.46 times respectively to 1.56 and 0.84 times respectively in post merger period. It can be observed that the case 1 and case 4 have maintain current ratio more than 2:1 in post merger period.

Thus, this analysis can be lead to conclusion that after merger the sample Case 2 and Case 3 have not capable to increase current ratio satisfactory

**Table 7 : Pre and post merger working capital Ratio of sample cases**

WORKING CAPITAL RATIO		PRE MERGER PERIOD							POST MERGER PERIOD					
Type of Cases	Name Of companies	2004-05	2005-06	2006-07	2007-08	2008-09	MEAN	Combind Mean	2010-11	2011-12	2012-13	2013-14	2014-15	MEAN
case 1	MTL	54.37	57.70	69.03	44.21	12.97	47.66	24.00	42.60	38.84	47.12	49.93	47.17	45.13
	AZL	0.19	0.24	0.44	0.42	0.41	0.34							
case 2	ESD	25.36	37.12	44.32	52.11	34.79	38.74	13.48	23.85	21.00	22.83	13.73	1.37	16.56
	IFL	-2.73	2.42	-4.69	-9.29	-44.60	-11.78							
case 3	USL	23.06	40.29	49.68	50.33	39.63	40.60	30.09	-3.99	-7.30	-11.55	-4.69	-8.92	-7.29
	SWL	5.21	19.61	16.97	36.55	N.A	19.58							
case 4	TWL	27.90	34.30	41.11	63.45	50.99	43.55	31.75	42.81	43.05	41.98	39.55	35.49	40.58
	TSL	6.17	38.28	31.39	20.03	3.86	19.95							

Source: Computed from -Ace equity

Table no. 7 shows Working capital ratio to total assets ratio of sample companies during pre and post merger period. Case 1, Case 2 and Case 4 have increased working capital ratio from 24%, 13.48% and 31.75% respectively to 45.13%, 16.56% and 40.58% respectively during the post merger period due to control on current liabilities. On other hand, Case 3 have negative ratio of working capital is -

7.29% during post merger period whereas it is positive 30.09% in pre merger period. It can be said that companies have lower ratio, may be face liquidity shortage in future.

So, the researcher can conclude that the working capital ratio is increased after restructuring activity in majority of sample cases.

**Table 8 : Calculation of T- test**

RATIO	Pre merger (A)		Post merger (B)		Paried Differences (A-B)		DOF (n-1)	t cal.	t tab.	sig. (2 tail) 95 % c.l.	Result
	mean	Std. Dev.	Mean	Std. Dev.	mean	S.D.					
C.A	2.435	0.295	2.050	1.026	0.385	1.032	3	0.746	3.182	0.510	H0
W.C	24.830	8.268	23.745	24.190	1.085	25.345	3	0.086	3.182	0.937	H0

Source : Researcher perspective with SPSS-21

Table no 8 shows calculation of t –test for liquidity ratio. The statement of the hypothesis are as under

H01: There is no significant difference in current ratio of selected Indian companies between pre and post merger period.

H01: There is no significant difference in working

capital of selected Indian companies between pre and post merger period.

From above table we can observed following results.

- For current ratio, the calculated value of ' t ' is 0.746 at 5% level of significance is less

then table value of 't' is 2.365 . i.e. t cal (2.424) < t tab (3.182) and rejected for current ratio. The results are not as per the expectation. sig (2 tailed) value is lower than specified  $\alpha$  of 0.05 ( 0.510 > 0.05), Therefore null hypothesis is

- For working capital ratio, the calculated value of 't' is 0.086 at 5% level of significance is less then table value of 't' is 2.365 , i.e. t cal (2.044) < t tab (3.182) and sig (2 tailed) value is greater than specified  $\alpha$  of 0.05 ( 0.937 > 0.05), Therefore null hypothesis is accepted .

Finally, we can conclude that there is no significant difference in liquidity position of selected Indian companies between pre and post merger period.

#### **Limitation of study**

- (1) The researcher has restricted this study up to four cases for limited period which covers five years before and five years after merger and acquisition from event year , so finding may not be generalized to whole industries.
- (2) The performance is analysed on the basis of selected financial ratio, while other factor also affected to performance is ignored by researcher.
- (3) This study is mainly based on secondary data so finding will depend on the accuracy of such data.

#### **Conclusion**

The present study examined the financial performance of four sample cases which covers eight companies on the basis of selected financial ratio in the context of profitability and liquidity position. The study result reveals that net profit ratio, return on shareholder's fund ratio, current ratio and working capital ratio were decreased after restructuring activity. Only, return on capital employed ratio shows mixed picture of restructuring activity. Moreover, the paired sample t-test analysis at 95% confidence level shows that the all the financial parameters are not statistically significant as per the t-test results for selected sample cases, hence we have to accept the null hypothesis (H<sub>0</sub>). That means, according to the present study There is no significant difference in profitability position and liquidity position of selected Indian companies between pre and post merger period. The further research having scope of study to compare performance of merging firms for pre and post merger period in specific industry as well as other industries. Similar type of studies with similar objectives could be initiated with reference to specific sectors

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# Impact of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) In Selected Districts of Gujarat

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## Abstract

The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) was notified in India on September 2005 with a mandate to provide hundred days of guaranteed wage employment in a financial year to every rural household whose members above the age of eighteen years volunteer to do unskilled manual work. The main focal point of the scheme is to facilitate the social protection by providing employment opportunities in rural areas and thereby contributing towards the overall development of the local people. The present study was attempted to taken an overview of MGNREGS at the national level and to examine the impact of MGNREGS on savings, banking habits and migration of beneficiaries in selected districts of Gujarat. The study found that MGNREGS implemented in selected districts of Gujarat has played an important role in bringing an increase in savings and has helped to reduce migration of the beneficiaries elsewhere, to look for employment.

## Introduction

The MGNREGS is by far the most important of the employment programmes undertaken by the government in India after independence. With the widest reach and the highest allocation of funds, it became one of the most ambitious and flagship programmes of the Government of India. It subsumed and merged all the existing employment programmes across regions, classes and categories of unemployed persons in India. The National Rural Employment Guarantee Act (NREGA) received its authentication on 25th August, 2005. The below mentioned table shows the history of the inception of MGNREGS:

Table 1: Time line of MGNREGS	
Time line of MGNREGS	Action
August 25th, 2005	MGNREGS enacted by legalization in Parliament
September 5th, 2005	Assent of the President
September 7th, 2005	Notified in the Gazette of India
February 2nd, 2006	Came into force in 200 districts
April 1st, 2007	113 more districts were notified (included for implementation)
May 15th, 2007	17 more districts were notified (included for implementation)
April 1st, 2008	Notified in the remaining rural districts
October 2nd, 2009	Renamed as MGNREGS
Sources: Compiled from various reports of MGNREGS	

As the Table 1 depicts that on August 25, 2005 The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) is an Indian job guarantee scheme, enacted by legislation. **The Scheme received assent of the President on September 5, 2005 .On September 7, 2005 MGNREGS was notified in the Gazette of India.** The law was initially called the National Rural Employment Guarantee Act (NREGA) but on October 2, 2009 the Act was renamed as **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).** **The Scheme was legalized and notified in 200 districts in the first phase with effect from February 2, 2006** and then extended to an additional 130 districts in the financial year 2007-2008 out of it 113 districts were notified with effect from April 1, 2007 and 17 districts in Uttar Pradesh were notified with effect from May 15, 2007. The remaining districts have been notified under MGNREGS with effect from April 1, 2008. Thus, the MGNREGS covers the entire country with the exception of districts that have a hundred percent urban population.

## Mandate And Objectives of MGNREGS

The mandate of the Act is to provide 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. The objectives of the

programme include:

- Provide social protection for the most vulnerable people living in rural India through providing employment opportunities,
- Ensuring livelihood security for the poor through creation of durable assets, improved water security, soil conservation and higher land productivity,
- Strengthening drought-proofing and flood management in rural India,
- Empowerment of the marginalized communities, especially women, Scheduled Castes (SCs) and Scheduled Tribes (STs), through the processes of a rights-based legislation,
- Strengthening decentralized, participatory planning through convergence of various anti-poverty and livelihoods initiatives,
- Deepening democracy at the grass-roots by strengthening the Panchayati Raj Institutions (PRIs),
- Effecting greater transparency and accountability in governance.

### **Review of Literature**

**Ahuja, R T Usha (2011)** examined the impact of MGNREGS on rural employment generation and migration of labour force. The study was conducted in two districts with different economic profiles. Their study concluded that the flagship scheme has a sizable impact on the employment generation. However, the downside has been that the scheme has not been able to curb the migration from economically advanced districts primarily on account of the low wages.

**Xavier G. Mari G (2014)** conducted a study to evaluate the impact of MGNREGS on socio-economic empowerment of women in Kalakkanmoi panchayat of Sivaganga district, Tamil Nadu. Their study found that MGNREGS significantly improved Social and economic decision making power to women in the men dominated rural society. The Scheme is also helpful to improve standards of living of the poor, more specifically among women. Moreover, MGNREGS increased income and expenditure of the households compared over the pre-MGNREGS period.

**Joshi and Singh (2008)** conducted evaluation study

in Rajasthan. They observed that after MGNREGS intervention, the migration certainly decreased but not completely stopped. MGNREGS augmented the purchasing power of family, offer better road connectivity to villages, helping in declining debt (marginally), increased agricultural production and thereby farm income.

**Lavanya V.L. and S.Mahima (2013)** conducted a study on analyzing empowerment of rural women through MGNREGS with special reference to Palakkad. Their study found that women are benefited separately because they are able to earn autonomously and able to use some money for their own hands, contribute for their family expenditure. Their study also found that MGNREGS economically empowered women and laid the basis for greater independence and self-esteem. It has become a symbol of hope and light for the empowerment of the rural women and has contributed significantly for the improved living and economic conditions.

**Padma(2015)** accessed that MGNREGS increase the productivity in agriculture sector, It prevented distress migration to some extent. Implantation of MGNREGS resulted in increasing the wages and non-availability of farm labour for agricultural operations. MGNREGS not only delivered economic benefits but also many social benefits to the society to attain sustainable development

**Jyoti Poonia (2012)** conducted a study to evaluate the impact of MGNREGS on participation of Women. The study found that MGNREGS helped women to take priority over their weak position in labor market and get alternative employment.

**Asha Sharma (2012)** studied on impact on women empowerment and stated that inevitably, women's MGNREGS earnings are increasing their contribution to household income. A large majority of the respondents said that they spent wages earned at MGNREGS works on regular food and consumer goods. The increased income locally available through MGNREGS work, they felt, was helping ensure at least two regular meals a day. By putting cash earning in women's hands, MGNREGS has both increased and diversified the contributions that women are making to household incomes as wage earners.

**S.Krishnan et.al (2012)** in their study finds that 77 percent of the respondents spent more than 50 percent of their MGNREGS earned income for food

consumption and also reported that they are in a position to fulfill their basic needs from this income. 80 percent of the respondents reports that they save less than 25 percent of their MGNREGS earnings due to their poor economic conditions, their studies reports that the water conservation works undertaken under this scheme has directly provided employment and increased area of paddy cultivation from 54 hectares to 71 hectares and pave the way to improve the livelihood and food security of the villagers.

**Pankaj Ashok (2008)** conducted a study on impact assessment of MGNREGS in Bihar and Jharkhand. The study found very low number of average working days (26) of employment provided per household in both the states. With this less number of working days MGNREGS was able to create some impact on the livelihood conditions of the beneficiaries. The income earning through MGNREGS is mostly used for food and daily consumption items, meeting expenditure on healthcare, education and fulfillment of debt and purchased of household durables.

#### **Objectives of The Study**

- To give an overview of MGNREGS in India
- To find out impact of MGNREGS on Migration
- To analyze MGNREGS in the context of savings and savings habit related with the beneficiaries of MGNREGS.

#### **Research Methodology**

The present study has confined itself to Anand and Godhra districts from Gujarat state. Total 120 respondents were selected from Anand and Godhra districts. Out of 120 respondents, 80 respondents were male beneficiaries and 40 were female. One block from each district was selected purposively, where MGNREGS works were reported to be implemented. Further, two villages were purposively selected from each block, where MGNREGS was reported to be ongoing. A sample of 30 beneficiaries of MGNREGS from each village was selected. Primary data was collected through personal interview method with the respondents with the help of a well-structured questionnaire. Secondary data was collected with the help of the official website of MGNREGS, Government of India publications and various published research

articles, agency and government reports as well as newspaper articles which appeared in the context of MGNREGS.

#### **Scope of MGNREGS**

**Registration:** Adult members of a rural household willing to do unskilled manual work may apply for registration to local Gram Panchayat (GP). The unit of registration is household, which is entitled to 100 days of employment every year.

**Job Card:** The Gram Panchayat (GP) issued job card within 15 days of registration. The custodian of the job card is with the household to whom it is issued.

**Application of Work:** An application for work under MGNREGS is submitted to Gram Panchayat (GP) in a written form. The Gram Panchayat will issue a dated receipt of the written application for employment, against which the guarantee of providing employment within 15 days operates.

**Unemployment Allowance:** In case employment is not provided within 15 days, the state will pay an unemployment allowance to the beneficiary.

**Provision of Work:** The Gram Panchayats (GP) are generally the suitable authorities empowered to 'start' works (by issuing work orders) and to assign employment amongst persons who have applied for work. Normally work is provided within 5 km radius of the village. If the distance of Worksite is more than 5 km then extra wages of 10 per cent are payable to meet additional transportation and living expenses. Priority is awarded to women, such that at least one-third of the beneficiaries under the Scheme are women.

**Wages:** Wages are to be paid as per the State-wise Government of India (GoI) notified MGNREGS wages. Payment of wages has to be done on a weekly basis and not beyond a fortnight in any case. Payment of wages is mandatorily done through the individual/joint bank/post office beneficiary accounts.

**Planning:** Plans and decisions regarding the nature and choice of works to be undertaken in a Financial Year (FY) along with the order in which each work is to be taken up, site selection, etc. are all to be made in open assemblies of the Gram Sabhas (GS) and ratified by the Gram Panchayat (GP).

**Cost Sharing:** In case of MGNREGS work 100 percent of wage cost of unskilled manual labour and



75 percent of the material cost, including the wages of skilled and semi-skilled labour all are incurred by Government of India.

**Worksite Management:** To ensure that the workers are directly benefited under the Scheme, the Act prohibits the use of contractors or machinery in execution of the work. As wage employment is the main focus, the Act mandates the wage expenditure to material expenditure ratio should be 60:40 in the total cost of work undertaken in a GP.

**Transparency and Accountability:** to bring more

transparency and accountability there is need to scrutinize all the records and works under the MGNREGS. It is possible with the help of Social audit and Grievance redressal mechanisms.

Social audit scrutinize all the records and works under MGNREGS and Grievance redressal mechanisms and rules have to be put in place for ensuring a responsive implementation process. All accounts and records relating to the Scheme should be available for public scrutiny.

#### **National Overview of MGNREGS**

TABLE 2: NATIONAL OVERVIEW OF MGNREGS FROM 2006-07 TO 2015-16										
Year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total Job Cards Issued (in Crore)	3.78	6.48	10.01	11.25	11.98	12.50	13.03	12.81	12.77	12.92
Employment Provided to Households (in Crore)	2.10	3.39	4.51	5.26	5.49	5.04	4.98	4.79	4.13	4.81
Total Persondays (in Crore)	90.05	143.59	216.32	283.59	257.15	216.34	230.46	220.37	196.11	235.14
Scheduled Castes	22.95 (25)	39.36 (27)	63.36 (29)	86.45 (30)	78.76 (31)	47.70 (22)	51.2 (22)	50.27 (22)	42.17 (22)	52.42 (22)
Scheduled Tribes	32.98 (36)	42.07 (29)	55.02 (25)	58.74 (21)	53.62 (21)	39.59 (18)	41.00 (18)	38.58 (17)	34.45 (17)	41.83 (17)
Women	36.40 (40)	61.15 (43)	103.57 (48)	136.40 (48)	122.74 (48)	103.81 (48)	118.23 (51)	116.38 (52)	110.28 (55)	129.94 (55)
Person days per HH [Days]	43	42	48	54	47	43	46	46	40	49
Sources; <a href="http://www.nrega.nic.in/netnrega/home.aspx">http://www.nrega.nic.in/netnrega/home.aspx</a>										
Note: Figures in parentheses are respective percentage of total										

The table: 2 show the overview of MGNREGS in India. The total number of Job cards issued increased roughly twice in magnitude in the first successive year of the introduction of MGNREGS from 3.78 crore in FY 2006-07 to 12.92 crore in FY 2015-16. The Employment Provided to Households has risen from 2.10 crore in 2006-07 to 4.81 crore in 2015-16 except For few years in between the time period shown. The participation of Scheduled Castes, Scheduled Tribes and Women has been significantly large and this shows the success of the scheme to reach weaker sections of the society and a road to financial inclusion. The Women participation has risen from 40 percent in FY 2006-07 to more than half of all the Participants, being 54 percent in 2015-16. However the participation of

SCs and STs comprise of around 40 percent and has shown a decline since the scheme has been introduced. Average number of Persondays (workdays) per Household has increased since 2006-07 from 43 to 54 in 2009-10 but again decreased to 49 in 2016-17 which is not even half of the guaranteed 100 days.

#### **Data Analysis**

##### **• Demographic Profile of Respondents**

The table 3 indicates demographic information of the sample respondents. Total 120 sample respondents were selected for this survey, 80 male participants whereas 40 female participants were considered.

The age wise classification of the respondent shows that majority of participants were found below 30

age group 39.17% (n=47) where 33.33% (n=40) respondents belonged to age group between 31 to 40. Rest of the participants, 27.5% belonged to 41 years and above.

The religion classification indicates majority (95.83%) of participants were Hindus, while 4.17% participants were Muslims. It is important to note down at this time that none of our participants belonged to religions other than Hindu and Muslim.

Cast wise classification of the respondent showed that majority (69.17%) of our participants were belonged to OBC category. The second majority (28.33%) of the participants found to belong to ST category. Only 2.5% participants belonged to SC and Open Category.

The data regarding marital status of the respondent shows that 95 % (n=114) of the total participants were married. Rest of the participants were either unmarried (2.5%) or separated (0.83%) or widow/widower (1.67%).

Analysis of educational qualification of the respondent indicates that 52.5 % (n=63) had received only primary education while 18.33% (n=22) had received secondary education. Out of 120 respondent 28.33% (n=34) were deprived of any formal education. It is important at this time to say that only 1 participant had received higher secondary education. None of our participants could endeavor to pursue higher education.

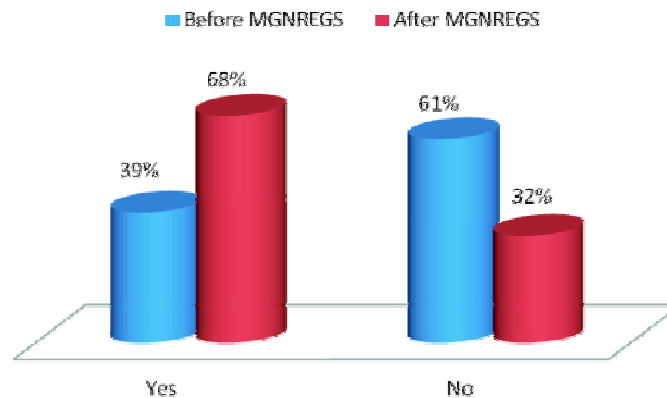
**Table:3 Demographic Profile of Respondents**

Characteristics		Unit	Total No	Actual No	Percent
Gender	Male	Nos.	120	80	66.67
	Female			40	33.33
Age Group	18 – 30	Nos.	120	47	39.17
	31 to 40			40	33.33
	41 to 50			20	16.67
	Above 50			13	10.87
Religion	Hindu	Nos.	120	115	95.83
	Muslim			5	4.17
	Christian			0	-
	Other			0	-
Caste	SC	Nos.	120	1	0.83
	ST			34	28.33
	O.B.C			83	69.17
	OPEN			2	1.67
Marital	Never Married	Nos.	120	3	2.5
	Married			114	95
	Separated			1	0.83
	Widow/Widower			2	1.67
Education Status	Illiterate	Nos.	120	34	28.33
	Primary			63	52.5
	Secondary			22	18.33
	Higher Secondary			1	0.83
	Bachelor's degree			0	-
	Other/Technical			0	-
Main Occupation	Own Agriculture Management	Nos.	120	7	5.83
	landless agriculture labour			35	29.17
	marginal agriculture and paid agricultural labour			56	46.67
	Seasonal trading			5	4.17
	Livestock rearing			5	4.17
	Non farm labour			12	10
Ration card holding Pattern	A.P.L	Nos.	120	56	46.67
	B.P.L			64	53.3
	A.R.C			0	-
Family Types	Joint	Nos.	120	53	44.17
	Nuclear			67	55.83
Sources: Survey Data					

Occupation wise classification of the respondents shows that majority (46.67%) of participants Were Farm labourers and 29.17% (n=35) participants were landless labourers. Other professions of the participants include own agriculture (5.83%), Trader (4.17%), animal husbandry (4.17%) and nonfarm labour (10%).

Talking of ration card holding status of the respondents, 53.33% (n=64) respondents hold BPL card while 46.67% (n=56) had APL card .None of our participants were ARC card holder. Responses on participants' family type presents that 55.83 % (n=67) belong to nuclear family background while 44.17% (n=53) respondents were a part of joint family.

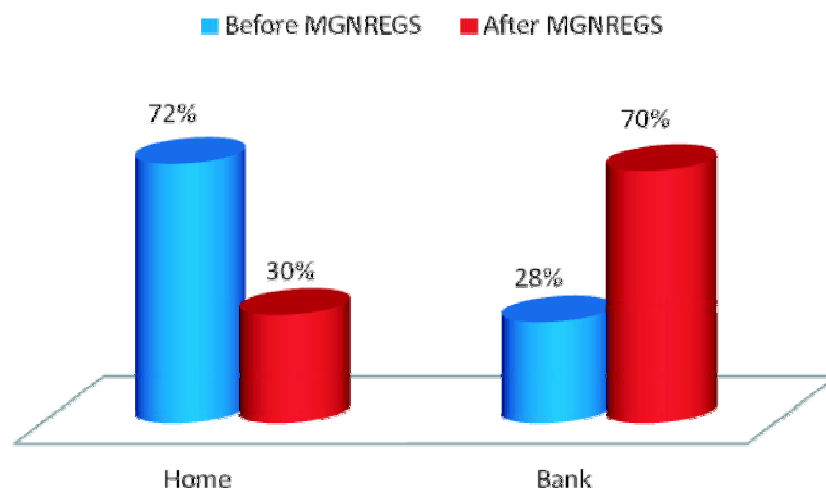
**Figure.1: Saving status of respondents**



It has been revealed from the above figure -1 that before joining MGNREGS 39 per cent of the total respondents were able to save their money from their earning sources while 61 percent of the total respondents were not able to save their money. After

joining MGNREGS work 61 percent of the total respondents were able to save their money and 32 percent of the total respondent were not able to save their money.

**Figure.2: Saving habit of respondents**



The above figure-2 mentions saving habit of sample respondents before and after joining MGNREGS work. The figure shows that before joining MGNREGS works 72 percent of the respondents preferred to save their money at home in the form of hard cash while only 28 percent of the total sample

respondents preferred to save their money in bank. After joining MGNREGS work 30 percent of the total respondents preferred to save their money at their home in form of cash while 70 percent of total respondents preferred to save their money at bank.

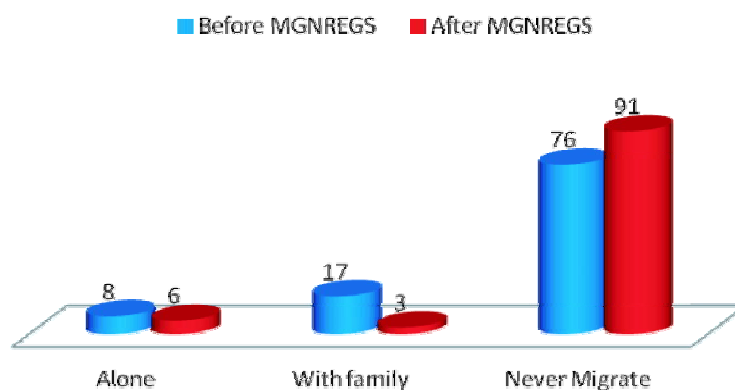
Table 4: Impact of MGNREGS on Migration

Sr.No	District	Migration status Before MGNREGS				Migration status After MGNREGS			
		Alone	With Family	Never Migrate	Total	Alone	With family	Never Migrate	Total
1	Anand	0	0	60	60	0	0		60
		(-)	(-)	(50)	(50)	(-)	(-)	(50)	(50)
2	Godhra	9	20	31	60	07	04	49	60
		(8)	(17)	(26)	(50)	(6)	(3)	(41)	(50)
	Total	09	20	91	120	7	4	109	120
		(8)	(17)	(76)	(100)	(6)	(3)	(91)	(100)

Sources: Survey Data

Note: Figures in parentheses are respective percentage of total

Figure.3: Impact of MGNREGS on Migration



The above table 4: shows the migration status of MGNREGS beneficiaries before and after joining MGNREGS. In Anand district all beneficiaries were never migrated for work so there isn't any impact of MGNREGS in case of Anand district. In Godhra district 8 percent of total respondents migrated alone in searching of work, 17 percent of beneficiaries migrated with their family while 26 percent of the worker never migrated before joining MGNREGS while after joining MGNREGS in case of Godhra district 6 percent workers have migrated alone, 3 percent workers have migrated with their family while 41 percent of the total respondents have never migrated.

#### Findings

- The National overview of MGNREGS indicates that there is incessant increase in

total no of issuing job cards from 2006-07 to 2014-15. The ratio of employment provided has increased almost twice in magnitude from National overview of MGNREGS.

- After joining MGNREGS works 29 percent of total sample beneficiaries were able to create their saving from the selected study region.
- After joining MGNREGS works 42 percent of the total sample beneficiaries preferred to save their money in bank from the study area.
- Before joining MGNREGS 17 percent of the sample respondents migrated with their

family and 76 percent of the total sample respondents never migrated for work from the study area. After joining MGNREGS work only 3 percent of the sample beneficiaries migrated with their family for work and 91 percent of the total sample respondents never migrated. So, the study reveals that the amount of migration of rural labour declined after the implementation of MGNREGS in study sphere.

### **Conclusion**

MGNREGS is the only Scheme in India which provides 100 days employment to the rural unskilled workers who are willing to work. MGNREGS serves as a useful safety net for the unemployed especially during famine and drought. It has enabled them to generate additional savings, shifting saving habit and helpful in reducing the extent of migration in study area.

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# Impact of E-commerce into Business: A Case Study of Amazon And Flipkart.

Menka Mohakud, Artta Bandhu Jena

## Abstract

One of the main characteristics of contemporary business houses is global competition. Businesses around the world compete with themselves for enhanced market share and increased sales volume. In order to reap the profit, firms across the globe have adopted E-commerce as their operation. Business firms of developed countries like US and UK have deployed E-commerce to its advantage whereas firms in developing countries like India have failed to follow the suit. Though, it has been widely acknowledged by the researchers in developing countries is an important economic indicator of growth; many firms in India still have not realized the potential benefits of E-commerce. This study examines the present status of E-commerce in India and analyses the performance. The study also reviews the performance of two selected E-commerce sites. The study serves as a background for further research in E-commerce in India.

## Introduction

It is IBM which is the first company to use E-business when it launched a thematic campaign built around the term in 1997. Until then, the widely used term was E-business. E-business can be defined as the conduct of automated business transaction by many electronic communication network (e.g., via the internet), end to end. The term end-to-end business transaction signifies that a series of automated business processes and information system of different companies, which are involved in an inter-company business transaction, is successfully integrated. Very often people use the terms E-Business and E-Commerce interchangeably. E-Business refers to all business activities conducted in internet by a company. In contrast, E-commerce is a part of E-Business; the term refers only to the activities involved in buying and selling. This study is focusing on the issues relating to e-commerce, such as its importance, issues and the solutions. E-Commerce is gaining momentum globally with Asian economies like China, India and Indonesia being the fastest growing e-business markets. E-business in India is growing at a fast pace with an estimated size of Rs.43,930 crore in FY13 and a CAGR of 43.8% (FY08-13). Furthermore, favorable demographic profile (75% of internet users are aged between 15-34), limited geographical reach by brick and mortar model, increasing internet penetration, increasing smartphone usage & declining data charges offer high market potential for e-retailing in India.



Source: [www.internetworldstats.com](http://www.internetworldstats.com)

As per the [internetworldstats.com](http://internetworldstats.com), the top 20 countries in the internet by number of users as on June 30, 2012, India ranks 3<sup>rd</sup> after China and US. The E-commerce industry is mainly dominated by the travel segment which accounts for more than 70% of the transactions of industry and e-retail's share in E-commerce stands at approximately 12.5%. Both Amazon and Flipkart are amongst the most active players in E-business in India. The case study of Amazon and Flipkart has been taken to analyse their performance and thereby to reach to the conclusion.

## Review of Literature

Lal (1999) has examined the factors influencing the degree of IT adoption by firms. The factors included are entrepreneur characteristics measured

by entrepreneur's qualification, importance given to market share, R&D and quality consciousness, firm's international orientation factors measured by import and export intensity, work force skill and firm size.

Kshetri (2001) has indicated that the twin forces of globalization and multiple revolutions in ICT are fuelling the growth of global E-commerce. Globalization has caused for the availability of cost effective product as this has enhanced the level of competition worldwide. Technology has enabled the supplier across the globe to synchronize with each other and to create win-win situation for each other.

Dasgupta & Sengupta (2002) have examined the future and prospects of E-commerce in Indian Insurance Industry. Insurance sector is a vital sector and e-commerce has enabled the customers to compare between various schemes available in the better manner in order to choose the most suitable policy from the particular company depending upon the requirement. The status of e-insurance in India is still formative stage, but stands to gain particularly from the rural markets since the availability of insurance agent is very less compared to urban markets.

Eben [2003] has presented and reviewed the impact of information security for e-business with emphasize on the security threats and potential losses that could arise from those vulnerabilities. E-business security is analyzed as consisting of 6 dimensions: confidentiality, integrity, availability, legitimate use, auditing and non-repudiation. His study has proposed that designing a comprehensive and systematic security policy is a need for implementing e-business security. E-business security can only be effective if it is regarded as part of an overall corporate information security risk management policy. The study has suggested for security management strategy.

Srinivasan [2004] stated that success of an e-business rests on many factors. An e-business must strive to achieve over a period of time. The study has suggested some contributing factors for gaining customer trust are: appeal of the Web site, product or service offerings, branding, quality of service and trusted seals. Trust can be viewed from many angles such as transaction, information content, product, technology and institution. People trust a business based on their own past experience as well as by

third party recommendations. His study has concluded that the e-businesses are accessible from anywhere at any time, there are additional impediments in building and maintaining trust.

Vasilis [2006] has analyzed the attitude of both e-business and perspective of e-partners toward the risks which are born by using the Internet as the communication channel. The risks are highly correlated and shape the trust of an e-customer towards an e-business. His study has mentioned the criteria of the characteristics which influence and shape the trust of an organization that: "the older the site, the higher the trust". Sometimes, people will think that the site which is able to offer good product that particular site should not have much of critical security problems since it needs powerful security tool or software to prevent other companies from imitate their products.

### **Objective of the Study**

The main objective of the study is to identify the key issues relating to the performance of E-business in India by taking case study to increase the awareness regarding security and understanding the trust involved in e-business.

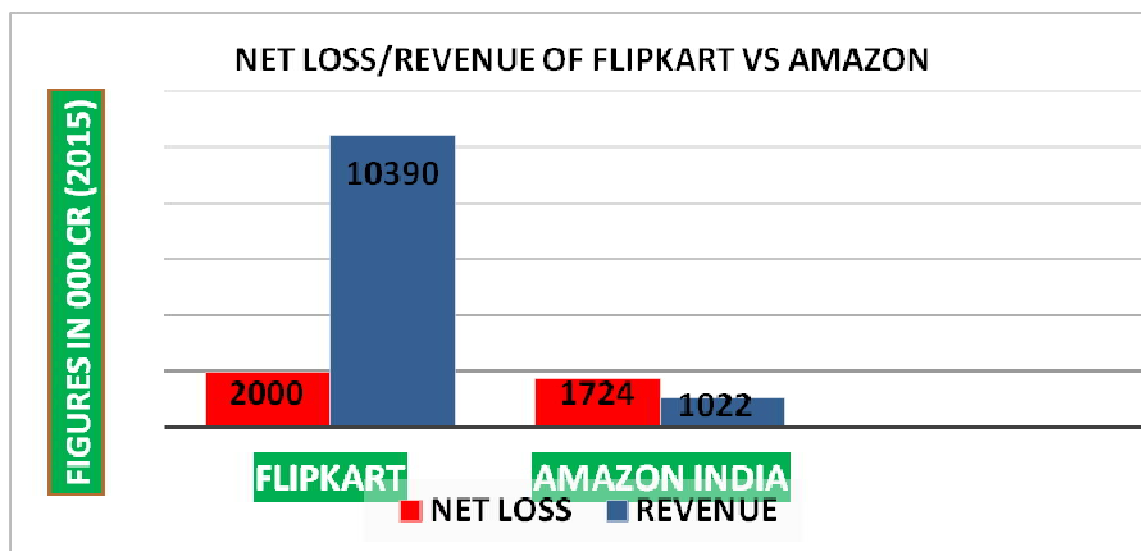
### **Research Methodology**

This segment of any research is very vital to researchers. The existing study is based on purely secondary data. The data has been collected through using the library, internet and of published/unpublished data journals/periodicals. Amazon India and Flipkart have been selected for the case study. Percentage and averages have been used for the comparison and analysis for the purpose of study.

### **Data Analysis and Interpretation:**

**Amazon** is an American electronic commerce and cloud computing company with headquarters in Seattle, Washington. It is the largest Internet-based retailer in the US. Amazon. is the site especially for India. **Flipkart** is founded in 2007 as an e-commerce company by Sachin Bansal and Binny Bansal. The company is registered in Singapore, but has its headquarters in Bangalore. Amazon looks to be turning the heat on Flipkart. The US online retail giant has caught up with its Indian rival on the web. While Flipkart still leads by a distance in the mobile app space which accounts for nearly three quarters of e-commerce traffic, the gap is narrowing fast.

Fig-1: Net Loss/Revenue of Flipkart vs. Amazon



Source: Ministry of Finance

Even though the net loss of Flipkart is higher to that of Amazon but it more than makes it up with 10 times the revenue of that of Amazon in the FY2015. The app launched by Flipkart was a booming step. Flipkart's app ranking in India moved up 10 positions to No. 1, while Amazon India's ranking

moved up 16 positions to No. 2, and Snapdeal's ranking moved up 23 positions to No. 4 on the Android platform. The app rankings take into account traffic, engagement, uninstalls, downloads and velocity of downloads, among many other parameters.

Table-1		
Items	Amazon	Flipkart
Fans	50,31,566	52,35,996
Posts	43	64
Engagement	87,469	2,25,220
Avg. Engagement	2,034	3,519
People Talking	35,668	55,083
Source: <a href="http://www.mondovo.com">http://www.mondovo.com</a>		

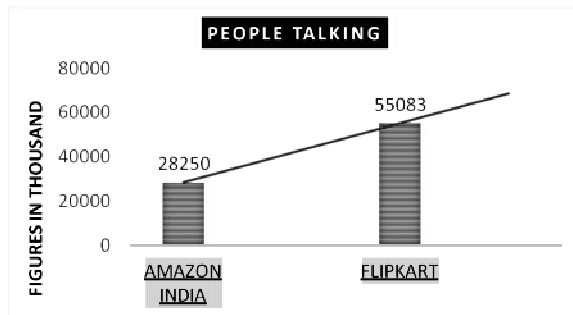
The table-1 shows the item wise comparison for the month of October, November, December, 2015. Flipkart has taken the better marketing leverages as

compared to **Amazon** with respect to item wise criteria.

Table-2 A Comparison of various Fee Charges & Payout period between Popular Online Stores					
Basis	FLIPKART	AMAZON	EBAY INDIA	SNAPDEAL	Shopclues
Subscription Fees	Free	INR 499/month	INR 499/month basic store	Free	Free
Listing Fees	Free	INR 10/sale	Free for First 100 Products	Free	Free
Payment Gateway Fee	None	None	4.5 Paisa Pay Fee +12.36 Service Tax	None	None
Commission	4-20%	5-15%	1-7%	4-20%	4-20%
Payout Period	Dispatch Date + 7 Business Days	7-11 Days	upon Customer Satisfaction	Dispatch Date + 7 Days	Every Wed for all orders completed before Monday
Source: <a href="http://www.mondovo.com">http://www.mondovo.com</a>					

As it is depicted from the table that Amazon has to incur subscription as well as listing fees therefore, it has a higher cost of services and pay out period as compared to Flipkart. This rivalry between the sites leads to the customers as the winner, who gets the products in cheaper price.

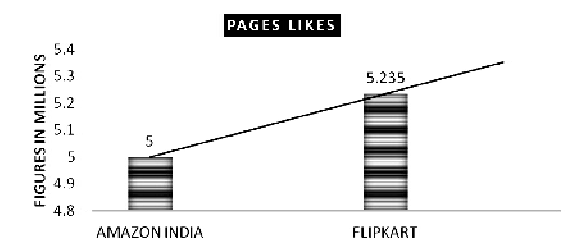
Fig-2: People Talking



Source: <http://www.mondovo.com>

People are not just talking but also engaging with the brand. This is just the Total Engagement that has happened in the last 3 months. This includes likes, comments and shares with their posts. The more will be sharing and likes the more will be the publicity. Marketing theory says that one satisfied customer brings ten more customers when one dissatisfied customer blocks twenty more customers. And Flipkart is again way ahead in this department.

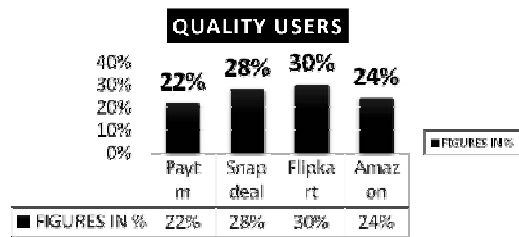
Fig-3: Pages Likes



Source: <http://www.mondovo.com>

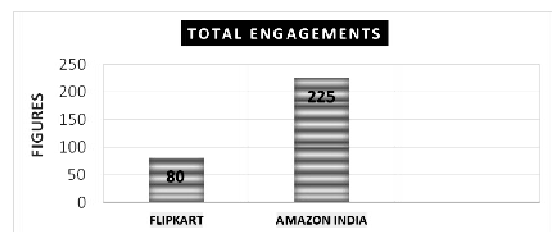
It can be noticed that both the companies have almost a 5 million likes to their social media uploads and ads. Flipkart is just above by 150 million likes. This seems fair when Amazon India was a late entrant whereas Flipkart's page is since 2008-2009. The number of people talking about these brands in the last 3 months can be observed and can be concluded that Flipkart is way above Amazon.

Fig-4: Quality Users



In context of no of quality users also Flipkart leads the department but not by a great margin as the difference is merely 6% in terms genuine customers or users.

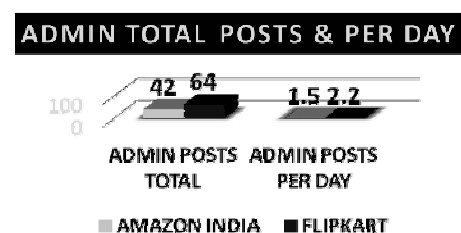
Fig-5: Total Engagements



Source: <http://www.mondovo.com>

The Engagement by Admins of the pages in the last 30 days. Flipkart seems to either have more folks working on social media or Amazon is just moderate when it comes to engagements by admins. In any case Flipkart wins again by miles.

Fig-6: Admin Total Posts & Per Day

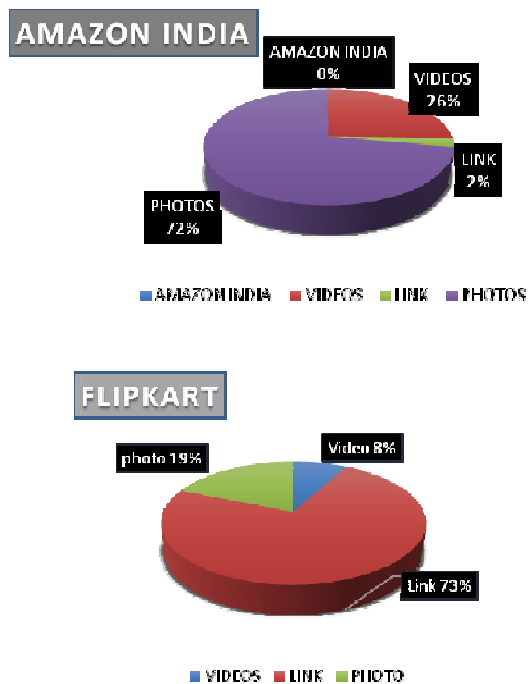


Source: <http://www.mondovo.com>

As can be seen Flipkart is way ahead in their game when comes to posting each day. This is mainly due to the recent launch of facility of chat and shop introduced by Flipkart which allows the buyers to simultaneously query from their friends before ordering a product.



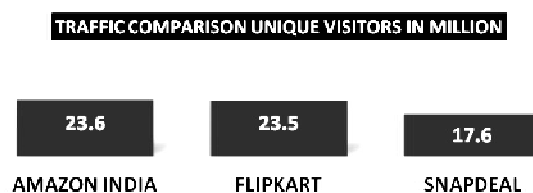
Ratio of Link, Videos, Photos In 360 Degree View



Source: <http://www.mondovo.com>

The above pie chart represents the videos, links and photos browsed in those three months. It can be clearly seen that flipkart has been browsed through various links various amazon through various photos & videos. This is so because in the form of suggested link flipkart has promoted itself to a large extent.

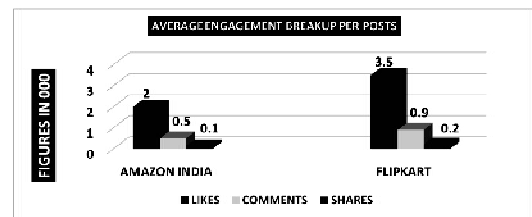
Fig-8: Traffic Comparison Unique Visitors in Million



Source: ComScore data

Snapdeal is another site that has been chosen to compare the unique visitors along with the two selected sites. This shows that in the year 2015, Amazon has more traffic /visitors a month than both Flipkart & Snapdeal as supposed to last year where Flipkart had 13 million visitors in comparison to Amazon and Snapdeal which had close to 10 million unique visitors.

Fig-9: Average Engagement Breakup per Posts



So, each time they post, the number of audience Flipkart attracts is huge when compared to Amazon. That shows how creative Flipkart than Amazon when comes to drawing attention. Creativity has been the weapon against competition for Flipkart. Flipkart has 3.9% more fans than Amazon India. Flipkart posts more than 2.1 posts a day and has been the most active page during this 3 months' period. Flipkart has got the highest engagement numbers with 215,941 likes, 2,119 shares and 7,140 comments on its' 64 posts in the last 3 months. The Flipkart is not only the leader in terms of engagement numbers but also in driving the most engagement per post. In the last 7 days, Flipkart has got the most people talking about its' page as compared to the other pages. Here goes the twist.

### Conclusion

It can be observed that even if the loss trend continues, the market share can be captured by identifying customer's requirement and the means of satisfying them. The following factors have been identified for the successful survival and profitability in case of online sites:

1. Creativity is very much essential and continuous process for e-business. This can be the ultimate option which will help in this cut throat competition.
2. Publicity through messages to mobile phone which can be easily accessed
3. Ensure that the management team aligns with E-business agenda. Bad delivery, late delivery can be the reason to bring the site down in ranking.
4. All the initiative should be built on the strength of the organisation and should take the full advantage of the opportunities in the market.
5. Commitment of financial, infrastructural and human resources. If these resources do not exist, some of the e-business activities can be out-sourced to alliance partners or to third parties

6. Review of important issues like E-marketing, E-cash, E-procurement, Security and trust issues.

The current status of a particular site can be traced by observing peoples likes, post, comments and unique visitors. And corrective measures can be taken in order to continue business to indefinite period.

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# Manpower Planning- A Strategy to Mitigate The HR Challenges in Retail Sector

Shreshtha Dabral

## Abstract

In the era of continuous growth and rapid change, the human resource of every organization seeks to achieve growth in terms of recognition, monetary and non monetary growth and intellectually stimulating task. The retail sector encompasses majority of youth of the economy, retaining and utilizing them becomes a challenging task in such a sector when attrition is at its peak. The Objectives of the study is to provide control measures to ensure that necessary resources are available as and when required, to obtain and retain the quantity and quality of human resource required in retail sector, to access and forecast the future skill requirement of human resource in retail sector. The method that was used was a planned Primary research which was used for the study purpose. A survey was conducted at retail stores in Ahmedabad. A structured Questionnaire related to factors of Attrition was given among 102 employees and samples were collected on the basis of convenience sampling and hypothesis was generated for future research. Data was analyzed using SPSS. To identify factors of Attrition data was analyzed using parametric statistics. Statistical analysis of Correlation was applied to the data. . Also all dimensions of Attrition were used in the analysis. The results generated from the research findings clearly show that the factors responsible for Attrition were Career Growth, Working Condition, Pay Scale, Nature of work and Job Satisfaction. The result had significant correlation with the factors of Attrition.

## Introduction

The Indian retail industry has undergone high growth over the last decade with a noticeable shift towards organized retailing formats. The industry is moving towards a modern concept of retailing. The size of India's retail market was estimated at US\$ 435 billion in 2010. India's retail market is expected to grow at 7% over the next 10 years, reaching a size of US\$ 850 billion by 2020. It has been anticipated that traditional retail will grow at 5% and reach a size of US\$ 650 billion (76%), whereas organized retail at 25% and which shall reach a size of US\$ 200 billion by 2020. India is at the fourth position in terms of retail investment amongst 30 emerging markets, stated by A T Kearney, a US based consulting firm in its Global Retail Development Index (GRDI) 2011. The Indian retail sector accounts for 22 per cent of the country's gross domestic product (GDP) and contributes to 8 per cent of the total employment. Amongst global retailers India continues to be the most attractive investment propositions. Cumulative foreign direct investment (FDI) inflows in single-brand retail trading, during April 2000 to June 2011, stood at US\$ 69.26 million. Till now FDI up to 100 per cent was allowed for cash and carry wholesale trading and export trading under the automatic route, and FDI up to 51 per cent was allowed in single-brand products, with prior government approvals. With a prior government approval FDI upto 51% was allowed in single brand products and for further liberalizing 100% in single brand retailing. This policy initiative is expected to provide further fillip to the growth of the sector.

## Manpower Planning

Employee turnover has always been a matter of concern for organizations. Employee turnover has a major influence on both the organization as well as the employees. Inadequacy of Human Resources Planning has been cited as the reason why most Retail organizations today are facing a chaotic situations as they did not onset plan their workforce, had no systematic human resource (HR) management programme that put the organizations goals first and the decay in the retail industry is evident as the level of frustration is equally high; and the "marketplace" trend of organization is becoming a reality (Goetz, 1989). The cause of this unfortunate development is primarily a lack of human resource planning.

How to reduce employee's turnover intention is a very pivotal challenge for today's HR managers. Traditional and old Human resource practices like higher pay and better incentives and employee's motivational techniques have been ineffective. The aim of manpower planning is to ensure that people with the right skills and characteristics and available to the organization at their disposal. Attrition which is faced by retail stores in Ahmedabad. Lack of proper planning also results into high employee turnover. Skilled employees are hopping from job to job and along with them they take the customer information and technical expertise that a company needs. Their salaries are increasing along with their perks, benefits and bonuses. This study is carried out to trace out the most influencing factor of attrition and the intention to attrition.

## **Literature Review**

Manpower planning is the term used to describe how companies ensure that their staffs are the right staff to do the jobs. The Key goal of Manpower Planning is to get the right number of people with the required skills, experience and competencies in the right jobs at the right time and at the right cost. Vetter (1967) has defined Manpower Planning as the process by which management evaluates how the organization should shift from its current manpower position to its desired position.

The process of quantifying the total number human resource with the adequate skill set over a period of time is the function of manpower planning. Manpower Planning which is also called as Human Resource Planning consists of putting right number of people, right kind of people at the right place, right time, doing the right things for which they are suited for the achievement of goals of the organization.

Ozay Mehmet, (1972), examined the Manpower planning/HRP and labour markets in developing countries. He argued that disaggregated manpower research, focused on existing problems and conditions in employment markets, and would be even more beneficial to economic development policies than the sort of abstract macro planning aimed at forecasts of long term manpower requirements which has been highly fashionable during the last decade.

Harvey Kahalas, Wayne E. Leininger, 1976 observed the manpower planning /HRP model for organizational effectiveness. He argued that micro-manpower planning is now starting to emerge as a process for supporting individuals and firms to play an active role in developing integrated approaches and facilitating interrelationships within an organization.

Margaret Slater, (1980) assessed the Manpower planning/HRP and research. He indicated that the best entry point or initial approach to manpower planning is via term definition. He had suggested to keep this term-defining concept in mind whenever we think, talk, or write about the subject, because the very label manpower planning in itself is ambiguous and capable of multiple interpretations.

The functions of Manpower Planning are to assist organizations to recruit, maintain, and optimize the deployment of the personnel needed to meet

business goals and reciprocate to the external environment for sustenance.

The process involves carrying out a skills analysis of the existing workforce, carrying out manpower forecasting, and taking action to ensure that supply meets demand. This includes the development of training and retraining strategies, Engagement activities, Rewards, Promotions, Recognitions and Opportunities.

Manpower Planning entails taking care of current and future manpower requirements of the organization (Frantzeh, 1981). There is a close relationship between manpower planning and strategic organizational planning. This is for effective manpower plan, there must be a reliable input or information so that whenever in future organization requires it already has the manpower with the type of skills required.

Dessler, (2001), examined that human resource planning is an ongoing process that is dynamic involving many interrelated activities which must be changed and updated as conditions require. It encompasses the planning and development of human resource program, such as recruitment, performance appraisal, and training to ensure that people's needs in the organization are met. Dessler (2001) further evaluates human resource planning as employment planning which, is the process of formulating plans to meet the future openings based on an analysis of the positions that are expected to be open and whether they will be internally or externally.

### **Objectives of the study**

- (i) To provide control measures to ensure that necessary resources are available as and when required.
- (ii) To access and forecast the future skill requirement of human resource in retail sector.
- (iii) To identify various factors that leads to attrition

### **Research Methodology**

#### *Problem Identification*

This research represents an integration of past research and theory that models the implementation and adoption of Manpower Planning for effective control of Attrition which is the biggest challenge in the Retail Industry.

In retail sectors the problem of Attrition is addressed as one of the challenges that are faced by the entire organization which results into hampering the growth of the organization. The scope of the study is limited to the challenge of Attrition in Organizations. It also emphasize on many factors

such as Attrition, Lack of skilled manpower, Stress, Attrition, Poaching, Career growth, Salary, Work atmosphere, Job security, Rewards and Recognition that accounts for the growth and development of the organization.

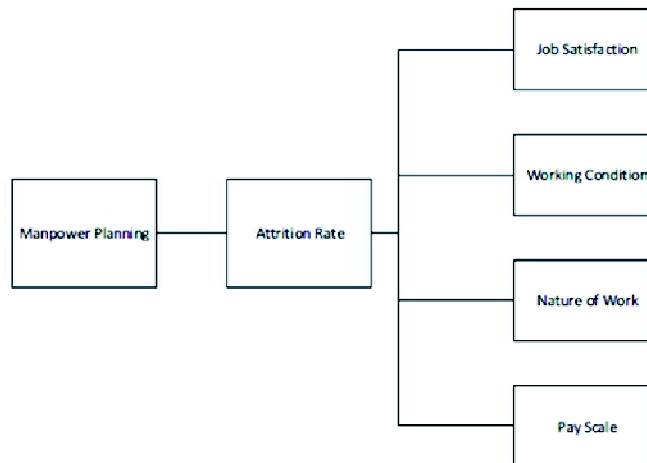


Figure 1 Study framework

Type of Research Method is Descriptive in nature. The data is collected through primary sources

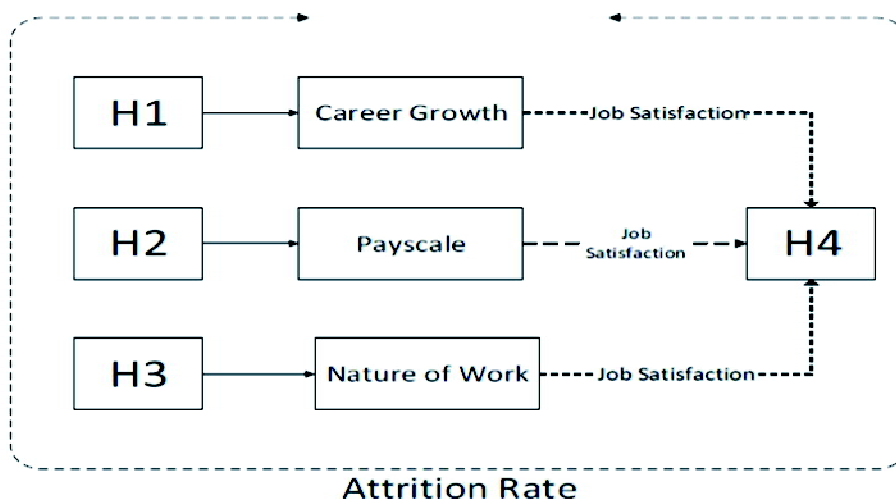
such as direct observation, interview, survey and questionnaire. This data is collected from the employees of Ahmedabad working at top retail stores. The sample size for research is taken to be 102 as for whole area of organization. Convenience sampling method used is as selection of units is based on easy availability and accessibility. The statistical tools used to in this study are correlation

which will identify the relation between the variables and thus define the objective result.

#### Type of variable:

- Independent variable:** There are 4 independent variable used in the study: Job Satisfaction, Pay Scale, Nature of work, Working Condition.
- Dependent Variable:** There are 2 Dependent Variable: Attrition and Career Growth

#### Hypothesis to be tested





## Figure 2 Hypothesis framework

### Hypothesis

**Ho1:** There is no significant relationship between Career Growth and Working Condition. **Ho2:** There is no significant relationship between Pay Scale and Career Growth.

**Ho3:** There is no significant relationship between Nature of work and Career Growth. **Ho4:** There is no significant relationship between Job Satisfaction and Attrition.

### Data Interpretation and Analysis

#### Attrition in Retail Industry

The growing companies require human resource to sustain the ever dynamic market. The retail industry undergoes high levels of turnover due to numerous factors.

#### Pay and Benefits

The main reasons for higher attrition are very low pay and limited job benefits. Retail workers like cashiers, stockroom workers, salespeople and managers often receive low wages that may be at or near the minimum wage. Moreover they also lack control over their schedules and authority on their schedules. Due to which a new job with comparatively better pay and convenient working schedules are extremely attractive to them.

### Opportunities for Advancement

The retail sector is an extremely advancing sector but the irony is that the job roles lack stability and growth in their own self. This in turn stimulates the employee to grow faster by switching from one job to another and acting on many opportunities rather than valuing their current job.

#### Young Workers

Majority of the workers in retail sectors are youngsters and teenagers, who join without having a long term future planning and commitment. At times they take up these jobs for extra pocket money or survival therefore lacking a future plan and this leads to greater turnover.

#### Personal Fulfillment

Retail jobs tend to be monotonous and dull and these factors also contribute to the increasing attrition in the sector. Employees are not able to express their creativity, intellect in performing the task allotted and they are not challenged which causes boredom. An employee enjoys a positive and fun environment to grow and stabilize.

In the survey conducted it was evaluated that 89% of employees love to go to office whereas 57% wish that they had the options of other working shifts and 43% declined the idea.

**Table1: Perception of employees towards workplace**

Sr. No	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	I have clear sense of future direction in this office	45	35	15	5	0
2	The atmosphere of this office is friendly	80	12	8	0	0
3	My supervisor understands me and appreciates my work	46	45	7	0	2
4	The workload in this office is distributed equitably	33	48	19	0	0
5	There are sufficient roles for staff to avoid job monotony	62	16	22	0	0
6	I have a clear understanding of how my job performance is measured	79	11	10	0	0
7	I receive a constructive feedback about the quality of my work	59	15	5	21	0
8	I know exactly what is expected of me as an employee	79	16	5	0	0
9	This office has regular staff meetings to plan and coordinate work	80	5	15	0	0
10	I received a through orientation to this office and my job	70	3	27	0	0
11	There are good incentives for the staff	30	40	20	0	10
12	I am satisfied with my pay scale and benefits	10	10	60	10	10
13	There are lots of skill development opportunities	70	0	30	0	0
14	This office has scope for career growth	70	10	20	0	0
15	Organization provides millennial enough opportunities to learn	80	3	17	0	0

The table above consolidates the perception of employee towards their organization on a five point Likert's scale. A clear understanding of future directions in the organization is perceived by 45% of the employee's office whereas only 5% disagree. Mostly the employees perceive the organization culture as friendly. There is a large difference in the workload at the office distributed equitably

perceived by the employee at 49% agree and 19% neutral. I receive a constructive feedback about the quality of my work also varies between 59% strongly agree 21% disagree. A through orientation is received by the employees towards their job and organization. The perception towards incentives received also varies from 30% to 10% strongly agrees and strongly disagrees.

**Table 1.1 Factors missing in current and previous job**

Sr. No	Factors	% factors missing in Previous job	% factors missing in current job
1	Flexible Working Hours	14	14
2	Scope for Career growth	10	12
3	Working Environment	14	16
4	Recognition	15	19
5	Remuneration	14	15
6	Scope for skill development	10	7
7	Job Satisfaction	13	10
8	Approachable Supervisor	2	2
9	Feedback	2	1
10	Motivation/ Incentives	2	2
11	Job Security	2	1
12	Cooperative Peers	2	1

Here, 14% of the people say that flexible working hours was missing in their previous job, for 10% of the people its career growth, for 14% of people it's working environment, for 15% of the people it's recognition, for 14% of the people it's remuneration, for 10% of the people it's scope for skill development, and for 13% of the people it's the job satisfaction that was missing in their previous job.

In the table above 14% of the people say that flexible working hours is missing in their current job, for 12% of the people its career growth, for 16% of people it's working environment, for 19% of the people it's recognition, for 15% of the people it's remuneration, for 7% of the people it's scope for skill development, and for 10% of the people it's the job satisfaction that is missing in their current job.

**Table: 1.2 Factors of leaving last job**

Sr. No	Factors of leaving last job	Percentage
1	Lack of Recognition	16
2	Monotonous Job	11
3	No scope for Career Growth	11
4	No/ Low Incentives	10
5	Remuneration not par	6
6	Discrimination	7
7	Unclear Job Roles	12
8	Pressure from supervisor	5
9	Multiple Bosses	4
10	High pressure of work	6
11	No scope for skill development	6
12	Lack of Motivation	6

Here, 16% of the people say that lack of recognition was the reason why they left their last job, for 11% of the people its monotonous job, for 11% of people it's no scope for career growth, for 10% of the people it's

no/low incentives, and for 12% of the people it's the unclear job roles so these were the reasons why they left their last job.

**Table 1.3 Factors important at workplace**

Sr. No	Factors important at workplace	Percentag
1	Career growth	20
2	Flexible Working Hours	20
3	Remuneration	20
4	Cooperative Supervisors	6
5	Feedback	6
6	Job Rotation	16
7	Job Security	6
8	Flexible Working Hours	20
9	Remuneration	20
10	Motivation	6

Here, 20% of the people say that the most important factor for them in the workplace is the career growth, for 20% of the people its flexible working hours, and again for 20% of people it's the remuneration and for the 16% of the people it's the job rotation that is an important factor for them in workplace

### **Data Analysis**

The hypothesis to be tested is as follows:

Hypothesis 1

**Ho1:** There is no significant relationship between Career Growth and Working Condition.

**Ha1:** There is significant relationship between Career Growth and Working Condition.

	Career growth	Working condition
Career growth	1	
Working condition	0.624049427	1

$$r=0.5684$$

Since, the value of r is 0.6240 which is greater than 0.5, so there is a positive correlation between Career Growth and Working Condition. This also says that when the working condition of the organization is good, people find the scope of growth in their career.

**Ha1 is accepted.**

### Hypothesis 2

**Ho2:** There is no significant relationship between Pay Scale and Career Growth.

**Ha2:** There is significant relationship between Pay Scale and Career Growth.

	Pay scale	Career growth
Pay scale	1	
Career growth	0.568412609	1

$$r=0.5684$$

Since, the value of r is 0.5684 which is greater than 0.5, so there is a positive correlation between Pay Scale and Career Growth. This also says that when people receive a higher pay scale or when their pay scale increases they tend to believe that their career is growing.

**Ha2 is accepted.**

### Hypothesis 3

**Ho3:** There is no significant relationship between Nature of work and Career Growth.

**Ha3:** There is significant relationship between Nature of work and Career Growth.

	Nature of work	Career growth
Pay scale	1	
Career growth	0.555650169	1

$$r=0.5556$$

Since, the value of  $r$  is 0.5556 which is greater than 0.5, so there is a positive correlation between Nature of work and Career Growth. This also says that when people find the nature of work to be good, when they are aware about their roles and responsibilities they believe that their career can grow.

**Ha3 is accepted.**

### **Findings and Recommendations**

In retail stores, taking into consideration all the factors, going through the policies and procedures of the company, working upon various HR practices such as recruitment, Welfare, Performance Appraisal, Payroll and Employee Engagement, It was observed that Attrition is a very Crucial factor which should be worked upon as it will improve the Productivity of the Organization, the interest level of the employees and also the retention rate which would be beneficial for the company.

According to the research the results derived were as follows: a positive correlation between Career Growth and Working Condition was found which states that when the working condition of the organization is good, people find the scope of growth in their career.

Second result was regarding Pay Scale and Career Growth which also stated a positive correlation between the both which means when people receive a higher pay scale or when their pay scale increases they tend to believe that their career is growing. Lastly, more the nature of work is found to be good, the more they are aware about their roles and responsibilities the more they believe that their career can grow.

These findings have concluded that there are indeed some major factors responsible for Job Satisfaction in a retail sector which leads to attrition and retention of employee work force. Those factors are career growth, Nature of work and pay scale. Lastly, Employee Retention is a function of the HR department encompassing the reduction of attrition and in turn improving the activities at work. The ultimate aim is happier, loyal employees that actively want to remain with the company. One of the most difficult and initial task is that of measuring the key factors that influence retention rates, such as employee engagement, salary expectations, perception of working environment and perception of managerial ability.

Once the biggest influencers of employees leaving have been identified, initiatives can then be planned and implemented to improve the retention rate.

### **Recommendations**

- Research has shown that career growth is very important influencing factor in deciding the retention in the organisation. Thus, career growth should be given importance in the organisation for the employees so that they can be retained and work for the success of the organisation.
- Organisation should identify the working nature of employees in which they are supposed to work. Working Nature is directly related to career growth of the employee which will enhance the retention rate in the organisation.
- Pay scale and remuneration also plays an important role in retaining the talent pool in the organisation. Pay scale plays a motivating factor for the employees working in the organisation.

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# Implementation of Corporate Governance and Its Impact on Performance of NSE Listed Selected Non – Banking Financial Companies in India

Yashasvi Rajpara, Ashish Bhuva

## Abstract

There is a global consensus about the objective of 'good' corporate governance i.e., maximizing long-term shareholder value. Corporate Governance is about promoting corporate fairness, transparency and accountability. The main objective the present study is to find out the appropriate implementation of Corporate Governance in NBFCs with reference to LIC Housing Finance Ltd., Bajaj Finserv Ltd. and Shriram Transport Finance Ltd. and Compare the findings with their profitability performance. The entire study is based on secondary data. The data has been collected from published annual reports of last 2 years on their websites. For evaluation purpose, this research paper is divided into three parts. Based on different elements of and with the help of secondary data, this work has analyzed and evaluated the practice of corporate governance in three NSE Listed NBFCs. In the first part, the concepts of corporate governance like evolution of corporate governance in Indian scenario, role and importance of corporate governance in Non Banking Finance sector has been discussed. The second part analyses the practice of corporate governance as determined in three NSE Listed NBFCs with the help of elements like board practices, stakeholders and transparent disclosure of information and third part of the paper gives findings of the study. The findings suggest that good governance resulted through appropriate implementation of corporate governance in NBFCs leads to increase in their profit and valuation.

## Introduction

Corporate Governance may be defined as a set of systems, processes and principles which ensure that a company is governed in the best interest of all stakeholders. It is the system by which companies are directed and controlled. It is about promoting corporate fairness, transparency and accountability. In other words, 'good corporate governance' is simply 'good business'. It ensures: adequate disclosures and effective decision making to achieve corporate objectives, transparency in business transactions, statutory and legal compliances, and protection of shareholders' interests and commitment to values and ethical conduct of business for all its stakeholders. The aim of "Good Corporate Governance" is to ensure commitment of the board in managing the company in a transparent manner for maximizing long-term value of the company for its shareholders and all other partners. It integrates all the participants involved in a process, which is economic, and at the same time social. The root of the word governance is from 'gubernate', which means to steer. Corporate Governance would mean to steer an organization in the desired direction. The responsibility to steer lies with the board of directors/governing board. Governance is concerned with the intrinsic nature, purpose, integrity and identity of an organization with primary focus on entity's relevance, continuity and fiduciary aspects. The primary participants in a corporation are shareholders, management-led by the CEO and the Board of Directors. There are other participants as well such as the employees, customers, suppliers, creditors and the community. Keeping in view the interest of various stakeholders in a company, corporate governance is concerned with effective management of relationships. It requires the formulation of the value framework, the ethical framework and the moral framework which will guide the decision-making process. Various Committees have given Code of Corporate Governance like Confederation of Indian Industry (CII) Desirable Corporate Governance Code, Corporate Governance Code given by the Kumar Mangalam Birla Committee set up by the SEBI, Task Force on Corporate Excellence through Governance given by the Department of Company Affairs (DCA) under the chairmanship of Dr. P.L. Sanjeev Reddy, Secretary, DCA and Corporate Governance Code given by the N.R. Narayan Murthy Committee set up by the SEBI in the year 2002. The recent statute Companies Act, 2013 has added some provisions in Clause 49 and it is included in this research.

## Literature Review:

**Azim (2012)** used Structural Equation Modeling (SEM) and observed that some governance mechanisms have positive covariance, while some have negative covariance. Thus, he arrived at no consistent and significant relationship between governance mechanisms and financial performance (as proxied by ROE, ROA, Market to Book Value Ratio, Price - Earnings Ratio and Dividend Yield).

**Brown and Caylor (2004)** determined that board composition was the



most important driving factor among the core factors of Corporate Governance Quotient (CGQ). They also found positive correlation between industry-adjusted CGQ scores and financial performance measures - shareholder returns, profitability, and dividend payouts and yields.

**Van de Velde et al. (2005)** analyzed the linkage of corporate governance ratings and financial performance, and found positive but not significant relationship between them.

#### **Objectives of the Study:**

- To evaluate the implementation of corporate governance practice in Non- Banking Financial Companies through a Corporate Governance Model of three NSE Listed Non- Banking Financial Companies.
- To compare the implementation of corporate governance practice in Non- Banking Financial Companies and financial performance of these NBFCs.

#### **Research Methodology:**

The Study is based on NSE Listed three NBFCs **LIC Housing Finance Ltd., Bajaj Finserv Ltd. and Shriram Transport Finance Ltd.** The entire study is based on secondary data and the data has been collected from published annual reports of last 2 years on their websites. Corporate Governance Code in the year of 2014-15 includes Revised clause 49 applicable from 1st October, 2014 and 2015-16 includes Revised clause 49 & Listing Obligations and Disclosure Requirements Regulations, 2015 (LODR) applicable as on 2nd September, 2015.

#### **Corporate Governance in Non – Banking**

#### **Financial Sector**

Three NBFC governance and transparency: Reserve Bank takes a step forward

<http://indianexpress.com/article/business/economy/nbfc-governance-and-transparency-reserve-bank-takes-a-step-forward/> years after a panel headed by former Reserve Bank of India deputy governor Usha Thorat proposed stringent norms for non-banking financial companies, the RBI has finally acted. The central bank has implemented higher capital requirements, regulatory alignment with banks, enhanced disclosure requirements and tighter corporate governance norms — all measures that will strengthen the NBFC sector structurally and safeguard the interests of customers and investors. Latest RBI measures will impact profitability and asset quality of NBFCs in the short term, but they will bring in more transparency and improve NBFCs ability to withstand asset quality shocks in the long run. “Mandatory investment grade credit rating helps to safeguard depositors. The limit on deposits improves safety for public depositors. However, majority of deposit taking NBFCs are already compliant,” said a study by Care Ratings. It says governance and disclosure norms will improve corporate governance and accountability of systemically important NBFCs and improve transparency. It will also ensure the availability of important information to investors who were short-changed on many occasions due to lack of transparency and inadequate flow of information.

#### **Implementation of Corporate Governance in Three NSE Listed NBFCs based on Model (On the Basis of year 2015-16 and 2014-15)**

**Table.1: Implementation of Corporate Governance in Selected NBFCs in the Year of 2015-16**

Corporate Governance Model based on Revised clause 49 & Listing Obligations and Disclosure Requirements Regulations, 2015 (LODR) applicable as on 2nd September, 2015							
Sr. No	Governance Parameters	Points Assigned	LIC	BAJAJ	SHRIRAM		
1	Statement of Company's philosophy on code of governance	2	2	2	2		2
2	Composition of Board	1	1	1	1		1
	Appointment of Woman Director	1	1	1	1		1
3	Chairman & CEO Independents	5	2	2	5		
i	Promoter Executive Chairman Cum MD /CEO	2					
ii	Non Promoter Executive Chairman Cum MD /CEO	2					
iii	Promoter Non-Executive Chairman	2		2			
iv	Non Promoter Non-Executive Chairman	2	2				
v	Non-Executive Independent Chairman	5				5	
4	Disclosure of tenure and age limit of directors	1	1	1			
5	Disclosure of :	4	3	3	3		
i	Definition of Independent Director	1	1	1	1		
ii	Definition of Financial Expert	1	1	1	1		
iii	Selection Criteria of Board of Directors including independent directors	1		0			
iv	Compliance Certification from CEO or CFO to the Board of Directors	1	1	1	1		

6	Post Board meeting follow up system and compliance of the board procedures		2		2			
7	Appointment of lead independent director		2			2		
8	Disclosure of other provision as to the boards and committees		1		1		1	1
9	Disclosure of :		2		2		2	2
	i Remuneration Policy	1		1		1		1
	ii Remuneration of Directors	1		1		1		1
10	Code of Conduct		2		2		2	2
	i Information on Code of Conduct	1		1		1		1
	ii Affirmation of compliance	1		1		1		1
11	Board Committee							
	A Audit Committee		10		10		10	10
	i Transparency in composition of audit committee	1		1		1		1
	ii Compliance of minimum requirement of the number of independent directors in the committee	1		1		1		1
	iii Compliance of minimum requirement of the number of meetings of the committee.	2		2		2		2
	iv Quorum for the Audit committee meetings	2		2		2		2
	v Information about literacy & expertise of committee members.	2		2		2		2
	vi Information about participation of head of finance, statutory auditor and chief internal auditor in the committee meeting	1		1		1		1
	vii Disclosure and publication of audit committee charter and terms of reference	1		1		1		1
	B Remuneration / Compensation Committee		6		6		6	6
	i Formation of the committee	1		1		1		1
	ii Information about number of committee meetings	1		1		1		1
	iii Compliance of minimum requirement of number of non executive directors in the committee	1		1		1		1
	iv Compliance of the provision of independent director as a chairman of the committee	1		1		1		1
	v Information about participation of all members in the committee meeting	1		1		1		1
	vi Publishing of committee report	1		1		1		1
	C Stakeholders' Relationship Committee		5		5		5	5
	i Transparency in Composition of the committee	1		1		1		1
	ii Transparency in Composition of the committee	1		1		1		1
	iii Information about number of committee meetings	1		1		1		1
	iv Information about action taken and investors/shareholders survey	1		1		1		1
	v Publishing of committee report	1		1		1		1
	D Nomination Committee		2		2		2	2
	i) Formation of the Committee	1		1		1		1
	ii) Publishing of committee charter and report	1		1		1		1
	E Health, Safety and Environment Committee		1		1			
	F Ethics and Compliance Committee		1		1		1	1
	G Investment Committee		1		1		1	
	H Share Transfer Committee		1		1		1	1
12	Mandatory Disclosure and Transparency:		25		24		22	22
	a Significant related party transactions having potential conflicts with the interest of the company							
	i) Approval of Related Party Transaction	1		1		1		1
	ii) Specification in omnibus approval of audit committee	1		1		1		1
	iii) Review of such Relevant Party transaction on quarterly basis	1		1		1		1
	iv) Disclosure of Related Party transaction on web site	1		1		1		1
	b Non Compliance related to capital market matters during last three years	1		1		1		1
	c Accounting treatment	1		1		1		
	d Board Disclosure - Risk Management							
	i) Formation of the Committee	1		1		1		1
	ii) Board Disclosure - Risk Management	1		1		1		1
	iii) Publishing of Risk Management Report	1		1		1		1
	e Proceeds from Public issues, Rights issues, Preferential issues	1				0		
	f Management Discussion and Analysis	1		1		1		1
	g Shareholders' Information							
	i) Appointment of new director / re appointment of existing director	1		1		1		
	ii) Quarterly results and Presentation	1		1		1		1
	iii) Share Transfers	1		1		1		1
	iv) Directors Responsibility Statement	1		1		1		1
	h Shareholder Rights	2		2		2		2
	i Audit Qualification	2		2		2		2
	j Training of Board Members	2		2		0		2
	k Evaluation of Non-Executive Directors	2		2		2		2
	l Whistle Blower Policy	2		2		2		2

13	General Body Meetings		3		3		3		3
i	Location and time of general meetings held in last three years	1		1		1		1	
ii	Details of Special Resolution passed in last three AGMs \ EGMs	1		1		1		1	
iii	Details of resolution passed last year through postal ballot incl. conducting official and voting process	1		1		1		1	
14	Means of communication and General shareholder information		2		2		2		2
15	CEO / CFO Certification		2		2		2		2
16	Compliance of Corporate Governance and Auditors' Certificate		10		10		10		10
	Clean Certificate from Auditor	10		10		10		10	
	Qualified Certificate from auditors	5							
17	Disclosure of Stakeholders' interests :		10		6		6		6
i	Environment, Health & Safety Measures	2		2		2		2	
ii	Human Resource Development Initiative	2		2		2		2	
iii	Corporate Social Responsibility	2		2		2		2	
iv	Industrial Relation	2							
v	Details of non-compliance by the Company, penalties and strictures imposed on the Company by the Stock Exchanges or SEBI or any statutory authorities or any matter related to capital markets during the last three years	2							
18	Other Requirements		3		3		3		3
i	The listed entity shall submit a quarterly compliance report on corporate governance in the format as specified by the Board from time to time to the recognized stock exchange(s) within fifteen days from close of the quarter.	1	1	1		1		1	
ii	Details of all material transactions with related parties shall be disclosed along with the report mentioned in clause (a) of sub-regulation (2)	1	1	1		1		1	
iii	The report mentioned in clause (a) of sub-regulation (2) shall be signed either by the compliance officer or the chief executive officer of the listed entity	1	1	1		1		1	
<b>Total Score</b>			<b>105</b>		<b>94</b>		<b>91</b>		<b>90</b>

**Table.2: Implementation of Corporate Governance in Selected NBFCs in the Year of 2014-15**

Corporate Governance Model based on Revised clause 49 applicable from 1st October, 2014									
Sl. No.	Governance Parameters	Points Assigned	LIC	BAJAJ	SHRIRAM				
1	Statement of Company's philosophy on code of governance	2	2		2			2	
2	Composition of Board	1	1		1			1	
	Appointment of Woman Director	1	1		1			1	
3	Chairman & CEO Independentness	5	2		2				5
i	Promoter Executive Chairman Cum MD /CEO	2			2				
ii	Non Promoter Executive Chairman Cum MD /CEO	2							
iii	Promoter Non-Executive Chairman	2							
iv	Non Promoter Non-Executive Chairman	2	2						
v	Non-Executive Independent Chairman	5						5	
4	Disclosure of tenure and age limit of directors	2	2		2			2	
5	Disclosure of :	3	3		2			2	
i	Definition of Independent Director	1	1		1			1	
ii	Definition of Financial Expert	1	1		1			1	
iii	Selection Criteria of Board of Directors including independent directors	1	1						
6	Post Board meeting follow up system and compliance of the board procedures	2							
7	Appointment of lead independent director	2							
8	Disclosure of other provision as to the boards and committees	1	1		1			1	
9	Disclosure of :	2	2		2			2	
i	Remuneration Policy	1	1		1			1	
ii	Remuneration of Directors	1	1		1			1	
10	Code of Conduct	2	2		2			2	
i	Information on Code of Conduct	1	1		1			1	
ii	Affirmation of compliance	1	1		1			1	

11	Board Committee							
A	Audit Committee		10		10		10	
i	Transparency in composition of audit committee	1		1		1		1
ii	Compliance of minimum requirement of the number of independent directors in the committee	1		1		1		1
iii	Compliance of minimum requirement of the number of meetings of the committee.	2		2		2		2
iv	Information about literacy & expertise of committee members.	2		2		2		2
v	Information about participation of head of finance, statutory auditor and chief internal auditor in the committee meeting	2		2		2		2
vi	Disclosure of audit committee charter and terms of reference	1		1		1		1
vii	Publishing of audit committee report	1		1		1		1
B	Remuneration / Compensation Committee		6		6		6	
i	Formation of the committee	1		1		1		1
ii	Information about number of committee meetings	1		1		1		1
iii	Compliance of minimum requirement of number of non-executive directors in the committee	1		1		1		1
iv	Compliance of the provision of independent director as a chairman of the committee	1		1		1		1
v	Information about participation of all members in the committee meeting	1		1		1		1
vi	Publishing of committee report	1		1		1		1
C	Shareholders' / Investors' Grievance Committee		5		5		5	
i	Transparency in Composition of the committee	1		1		1		1
ii	Transparency in Composition of the committee	1		1		1		1
iii	Information about number of committee meetings	1		1		1		1
iv	Information about action taken and investors/shareholders survey	1		1		1		1
v	Publishing of committee report	1		1		1		1
D	Nomination Committee		2		2		2	
i	Formation of the Committee	1		1		1		1
ii	Publishing of committee charter and report	1		1		1		1
E	Health, Safety and Environment Committee		1		1		1	
F	Ethics and Compliance Committee		1		1		1	
G	Investment Committee		1		1			
H	Share Transfer Committee		1		1		1	
12	Mandatory Disclosure and Transparency:		28		26		26	
a	Significant related party transactions having potential conflicts with the interest of the company							
i	Approval of Related Party Transaction	1		1		1		1
ii	Specification in omnibus approval of audit committee	1		1		1		1
iii	Review of such Relevant Party transaction on quarterly basis	1		1		1		1
iv	Disclosure of Related Party transaction on web site	1		1		1		1
b	Non Compliance related to capital market matters during last three years	2		2		2		2
c	Accounting treatment	2		2		2		
d	Board Disclosure - Risk Management							
i	Formation of the Committee	1		1		1		1
ii	Board Disclosure - Risk Management	1		1		1		1
iii	Publishing of Risk Management Report	1		1		1		1
e	Proceeds from Public Issues, Rights Issues, Preferential Issues	1		1				
f	Management Discussion and Analysis	2		2		2		2
g	Shareholders' Information							
i	Appointment of new director / re appointment of existing director	1		1				1
ii	Quarterly results and Presentation	1		1		1		1
iii	Share Transfers	1		1		1		1
iv	Directors Responsibility Statement	1		1		1		1
h	Shareholder Rights	2		2		2		2
i	Audit Qualification	2		2		2		2
j	Training of Board Members	2				2		
k	Evaluation of Non-Executive Directors	2		2		2		2
l	Whistle Blower Policy	2		2		2		2
13	General Body Meetings		3		3		3	
i	Location and time of general meetings held in last three years	1		1		1		1
ii	Details of Special Resolution passed in last three AGMs / EGMs	1		1		1		1
iii	Details of resolution passed last year through postal ballot incl. conducting official and voting process	1		1		1		1
14	Means of communication and General shareholder information		2		2		2	
15	CEO / CFO Certification		2		2		2	
16	Compliance of Corporate Governance and Auditors' Certificate		10		10		10	
	Clean Certificate from Auditor	10		10		10		10
	Qualified Certificate from auditors	5						
17	Disclosure of Stakeholders' interests :		10		6		6	
i	Environment, Health & Safety Measures	2		2		2		2
ii	Human Resource Development Initiative	2		2		2		2
iii	Corporate Social Responsibility	2		2		2		2
iv	Industrial Relation	2						
v	Disclosure of policies on above four mandatory disclosures	2						
	<b>Total Score</b>		<b>105</b>		<b>92</b>		<b>90</b>	

Interpretation of Implementation of Corporate Governance in Three NSE Listed NBFCs

All three companies' follows corporate governance code but disclosure of selection criteria of board, Post Board meeting follow up system and compliance of the board procedures and appointment of lead Independent Director was not

mentioned specifically in corporate governance report. It was found that companies follows the mandatory and Non-mandatory disclosure but they fails to mention it in Corporate Governance Report like disclosure regarding Accounting treatment, disclosure regarding Proceeds from Public issues, Rights issues, Preferential issues.

**Table.3: Financial Results of NBFCs**

Name of Company	Corporate Governance Points		Net Profit (In Crore)			Earnings Per Share (In Rs.)			Net Worth (In Crore)		
	2015-16	2014-15	2015-16	2014-15	% Change	2015-16	2014-15	% Change	2015-16	2014-15	% Change
LIC Housing Finance Ltd.	94	92	1661	1386.19	19.8%	32.91	27.47	19.8%	9145.98	7818.44	16.98%
Bajaj Finserv Ltd.	91	90	163.13	125.93	29.5%	10.3	7.9	30.4%	2695.98	2560.29	5.30%
Shriram Transport Finance Ltd.	90	90	1178.2	1237.81	-4.82%	51.93	54.56	-4.90%	10154.11	9238	9.92%

### Findings

Here, from the analysis of the implementation of Corporate Governance code it was found that all three companies have followed corporate governance code. LIC Housing Finance Ltd. has followed the corporate governance code and the reporting standards are also good. Bajaj Finserv Ltd. and Shriram Transport Finance Ltd. has followed it but they have not explicitly mentioned each and every disclosure in corporate governance report which must be mentioned. The above Financial data shows that in LIC Housing Finance Ltd. Net Profit was increased by 19.8%, EPS also increased by 19.8% and Net worth increased by 16.98%.

In Bajaj Finserv Ltd. Reporting standard of corporate governance also improved and Net Profit increased by 29.5%, EPS increased by 30.4% and Net worth increased by 5.30%.

In Shriram Transport Finance Ltd. Reporting Standard of corporate governance is constant and Net Profit is decreased by -4.82%, EPS is also decreased by -4.90% and Net Worth is increased by 9.92%.

The above research says that in all three companies implementation of corporate governance shows positive impact on Financial Performance and its valuation.

### Recommendation

Listed companies' follow the Corporate Governance Code but they have to specifically disclose it in Corporate Governance Report as like each standard must be a separate head into the report so that all stakeholders can get knowledge about it very easily.

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