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   INTRODUCTION

   REVIEW OF LITERATURE

   NEED/IMPORTANCE OF THE STUDY

   STATEMENT OF THE PROBLEM

   OBJECTIVES

   HYPOTHESES

   RESEARCH METHODOLOGY

   RESULTS & DISCUSSION

   FINDINGS

   RECOMMENDATIONS/SUGGESTIONS

   CONCLUSIONS

   SCOPE FOR FURTHER RESEARCH

   ACKNOWLEDGMENTS

   REFERENCES

   APPENDIX/ANNEXURE

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BOOKS

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- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

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- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

MARRIED WOMEN WORKING IN NIGHT SHIFT AND ITS IMPACT ON FAMILY RELATIONSHIP

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ABSTRACT

The women's are not just playing the role of house maker but she is also going out like men and works and earns the money. As the women are earning money she has become more independent in financial aspects. In past days the women was only looking the children and home and she does not have any other responsibilities but in today's scenario she will manage the responsibilities of family and work so she is more dynamic and courageous to face the challenges posed by the society. The modern day hectic lifestyle is often blamed for this rise. This is because most people these days are career oriented and couples often don't spend quality time with each other. This communication gap can lead to break ups in no time. Couples should remember that marriage is the coming together of two love filled hearts and it loses its whole meaning when it ends in a divorce. The study says that the working hours are limited to 8 hours and more than that and even most of will not travel for more than 2 hours for their jobs so the employees will not feel more tiredness in the work. Almost all the IT firms will provide the best and safety transport facility to the employees who work in night shift. But most of women employees will not prefer the night shift because the hours are not preferred for working. Most of the employees have taken the counseling this can be avoided if they can avoid the unnecessary stress and maintain the balance mind. The health hazards can be avoided to some extent if the women employees take the proper diet food and rest whenever it is possible.

KEYWORDS

Working hours, Divorce, communication, night shift, employees.

1.1 INTRODUCTION

Behind Every Successful Man there is a Woman"

The above saying go like this as the women will support more to men in past period but know a day the women are building their own career so the women are not supporting men in their career. The women's are not just playing the role of house maker but she is also going out like men and works and earns the money. As the women are earning money she has become more independent in financial aspects. In past days the women was only looking the children and home and she does not have any other responsibilities but in today's scenario she will manage the responsibilities of family and work so she is more dynamic and courageous to face the challenges posed by the society. The today's women will even support financially for her spouse and she will plan the future of the family and try to bring a good standard of living to the family. Long ago the young men and women will get marry and start to live a happy family as men will work and earn money and the women will take of the family. These two people will decide to become parent and lead a married for years together and women will not have any aware of rules and regulation which are there for the well being of the women but today the women will not follow what the husband says but even she will give the suggestions which may become decision so the women are aware of rules and regulation.

As women has started to work first she was working in the day time to earn little money where it will be helpful to the family but in present situation the women has started to work even in night time which is called as night shift . The night shift has started from the software industries and BPO and call centers where they will do the business even outside the country so to enable the services for 24 hours. The women working in night shift will lead to many problems as there will be an imbalance life style because when the individual has to take rest the people will work and at day time they will sleep by this the entire life style will change. When married women work in night shift the women will not be able to maintain the family because when the spouse is at home she will go for work and vice versa so there will be arguments between husband and wife, by this there will be difference of opinion and the quarrel begins. The another problem starts when she has children because mother will not be available for the child in the night and even she will not be able to spend the time with the child and concentrate towards the education of the child. She has to hear the words from the family members like in laws or relatives because the old people will not change for the present scenario as there have not experienced about it.

In today's world the working women has to maintain the work and the family so this two factors are inter related because if there is a satisfaction in the family then only the women can concentrate on the work and automatically it increases the performance of the employee and even if there is no any tension in the work then only the women employee can concentrate in the family so there is a link between work and family. The link between work and family will affect the relationship to a greater extent. The structure of work and work roles has direct effects on family roles and family life.

The most significant aspects of work which influence the relationship are

- The amount of time worked and the location of work
- The nature of work schedule

- The geographic mobility associated with work
- Work related travel
- Type of Work

Another most common problem in the lives of the working women is taking divorce. Divorce rates have seen a phenomenal rise in recent times. The modern day hectic lifestyle is often blamed for this rise. This is because most people these days are career oriented and couples often don't spend quality time with each other. This communication gap can lead to break ups in no time. Couples should remember that marriage is the coming together of two love filled hearts and it loses its whole meaning when it ends in a divorce.

1.2 REVIEW OF LITERATURE

The review of the literature is to know the problem of the study and to understand the secondary data collected in the field of study and to find out the new problem statement.

A study was conducted on the relationship between wives employment and husbands well being. The results showed that husbands of employed women reported slightly lower levels of job satisfaction, marital adjustment, and quality of life than husbands of housewives. (Parasuraman, 1989)

The study examined the stress and conflict that results from the difficulties in juggling work and family commitments, for working mothers. He examined the government and corporate responses to helping workers with family responsibilities, in Australia and overseas. In the study he discusses cost benefits for companies of providing family supports to workers: gives examples to show the continuing corporate, bureaucratic and community ambivalence on the interconnections between the worlds of work and family life. (Wolcott, 1990)

The problem discussed here is of the dual career couple and the new family life style that emerges. Study found that the primary difficulty was balancing both career and relationship demands. Two important issues related to this difficulty were (a) the problems encountered by women and the importance of male support for their solutions and (b) the issue of time pressure and time management. (Desjardins, 1994)

Study of family revealed that women were likely to carry the double load of meeting the demands of paid and family work and felt more guilt and conflict over not being a full time parent. The author discusses the stresses and benefits of combining work and family roles and examines legislative and employer responses. The author concludes that combing work and family contributed to overall satisfaction with women who worked part time consistently reporting greater satisfaction with their working environment and their family than men working full time or women not in the workforce. (Wolcott, 1995)

The influence on happiness and satisfaction in marriages were found to be autonomy and relatedness. Autonomy refers to spouses perceptions of the extent to which partners encouraged a sense of independence and individuality for each other. Relatedness in the study referred to spouses perceptions of the amount of closeness that their partners provided. The findings of this study did differ for males and females, specifically in that females found relatedness to be important in determining the standards of their relationship, held by themselves and their husbands, and that no relationship was found between male's views of standards or their interpretation of their wives and relatedness. It was found through this study that autonomy and relatedness were not significantly positively correlated with each other but also with marital adjustment and satisfaction in both males and females. (Rankin, 1997)

1.3 STATEMENT OF THE PROBLEM

The problem in the study deals with the married women who are working in the night shift which influences on the family relationship and even it creates a difference of opinion with the other family members. The other problem of the working women is about their health hazards and balancing their life towards their work and personal life and sleeping hours and about their diet which has to be maintained in their daily life. The married working women are facing a heavy problem in their family relationship as the relationship is breaking down and majority are divorced and there are living alone. The married women who are working in night shift will also influence on their family culture which affects the relationship with the in-laws of the family. The woman has to face many challenges in the society when she is working, the woman has managed time to her work, husband, and children and to handle the responsibilities in the family so the managing abilities of the women plays a vital role in her life. There will be lot of changes in the life of the married women when she starts working out the family, many problems may arise between husband, children, in-laws etc.The women will be under stress, dissatisfaction towards the family, lack in concentration in the work and she will lose the entertainment with her husband and children.

1.4 OBJECTIVES OF THE STUDY

a) To study the family relationship of married women employee working in night shift.
b) To know the mental attitude of married women employee who is working in night shift towards the family members.
c) To know the health hazards faced by the women working in night shift.

1.5 STATISTICAL TOOLS USED FOR ANALYSIS

The percentage method is used for data analysis as it is used for Comparison between two factors.

1.6 SAMPLING TECHNIQUES

Random sampling has been used for the purpose of the study so that the sample could be split into different groups based on the convenience of the researcher.

1.7 SAMPLE SIZE

The sample size is 50 respondents selected from the major IT industry where there is a night shift work. The 50 respondents are married women who are working in night shift.

1.8 CONTACT METHOD

In depth interview

1.9 SOURCES OF DATA

PRIMARY DATA: Direct contact with the women employees who are working in the night shift andcollecting the information by the employees through questionnaire.

SECONDARY DATA: Through journals, magazines, text books and website.

1.10 LIMITATIONS OF THE STUDY

The research study can never be devoid of biased responses and prejudices of the respondents. The limitations are

- The research study is limited only to the IT industry.
- The research is bound with the time as there is a change in the industry.

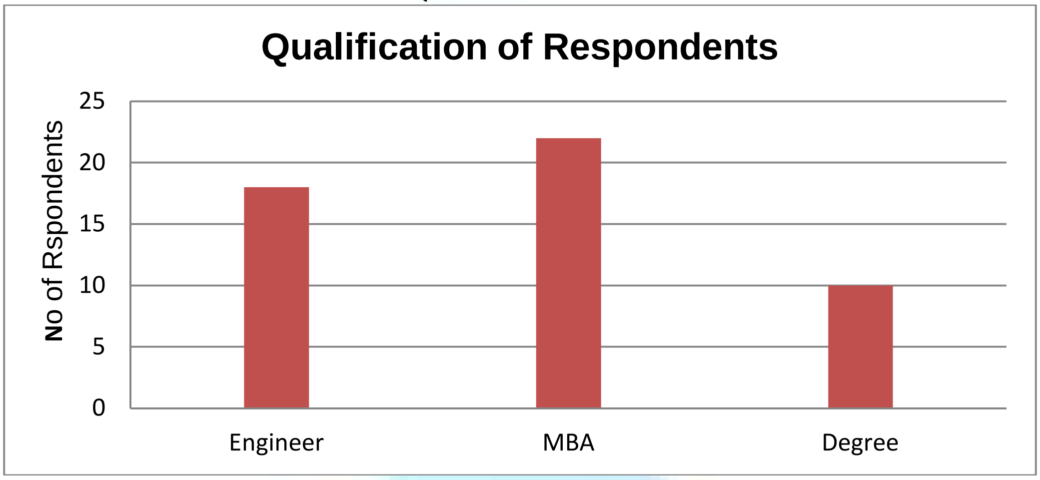
1.11 ANALYSIS OF DATA AND DISSCUSSION

SHOWING THE QUALIFICATION OF THE RESPONDENTS

TABLE 1: QUALIFICATIONS OF RESPONDENTS

Sl. No	Qualification	No of Respondents
1	Engineer	18
2	MBA	22
3	Degree	10
Total		50

GRAPH 1: QUALIFICATION OF RESPONDENTS



Source: Field Survey

The above graph shows the education level of the employees. 22 of them have done MBA, 18 of them are from engineer and 10 of them are degree holders

SHOWS THE WORK EXPERIENCE OF THE RESPONDENTS

TABLE 2: WORK EXPERIENCES OF RESPONDENTS

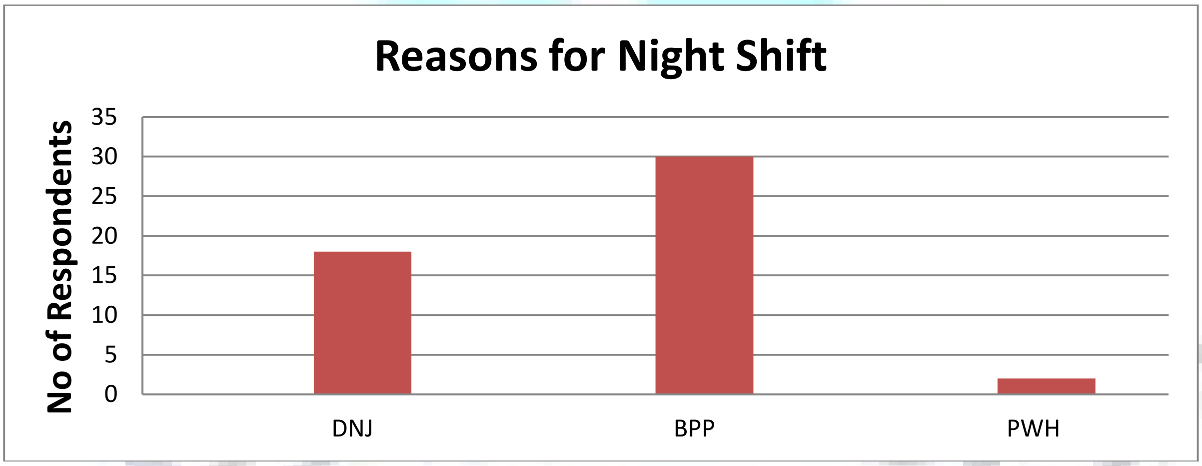
Sl. No	Work Experience	No of Respondents
1	1 – 3	10
2	4 – 6	20
3	7 - 10	20
Total		50

The above graph shows the work experience of the employees. 25 of them have 4-6 years of experience, 20 of them have 7- 10 years of experience and finally 5 of them have 1 – 3 years of experience.

1.12 ANALYSIS

DNJ = Demand by Nature of Job, BPP = Better Pay Package, PWH = Prefer Working those Hours

GRAPH 2: REASONS FOR NIGHT SHIFT



Source: Field Survey

The above graph shows the major reason for the night shift work, so 30 of them work for the reason of better pay package , 20 of them work because of nature of the job and remaining 5 of them have a reason of prefer working hours .

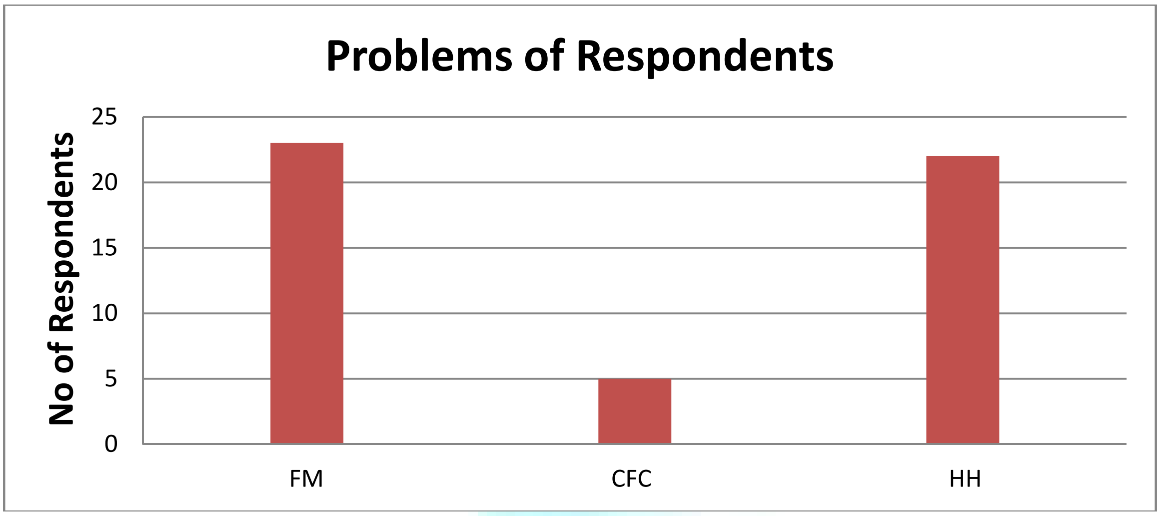
THE PROBLEMS FACED BY THE EMPLOYEE DUE TO NIGHT SHIFT WORK

TABLE 3: PROBLEMS FACED BY RESPONDENTS

Problems Faced	No of Respondents
FM	23
CFC	05
HH	22

FM = Family Maintenance, CFC = Caring For Child, HH = Health Hazards

GRAPH 3: PROBLEMS FACED BY RESPONDENTS



Source: Field Survey

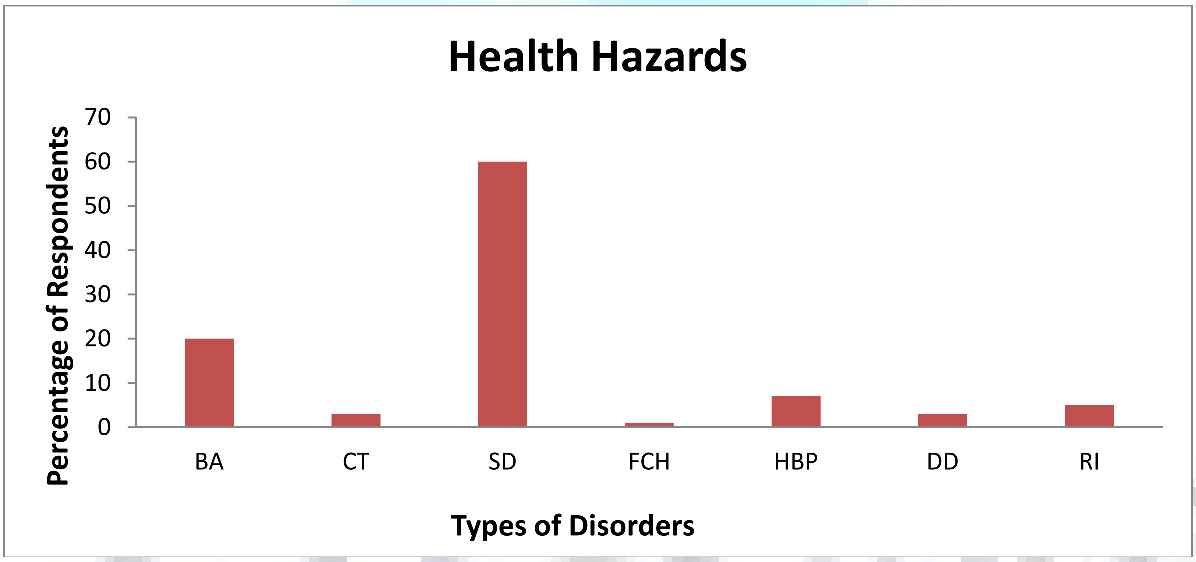
The above graph shows the problems faced by the respondents. 23 of them will face the problem of family maintenance, 22 of them face the health problem and 5 of them face the problem of caring the children. The family maintenance and health hazards are almost same this shows that most of them will face both the problems.

THE HEALTH PROBLEMS FACED BY THE WOMEN WHO WORK IN NIGHT SHIFT WORKING

TABLE 4: HEALTH PROBLEMS OF RESPONDENTS

Health Problems	Percentage of Respondents
Backache	20%
Continual Tiredness	03%
Sleeping Difficulties	60%
Frequent cold and fever	01%
High Blood Pressure	07%
Digestive Disorder	03%
Respiratory Illness	05%

GRAPH 4: HEALTH PROBLEMS OF RESPONDENTS



Sources: Field Survey

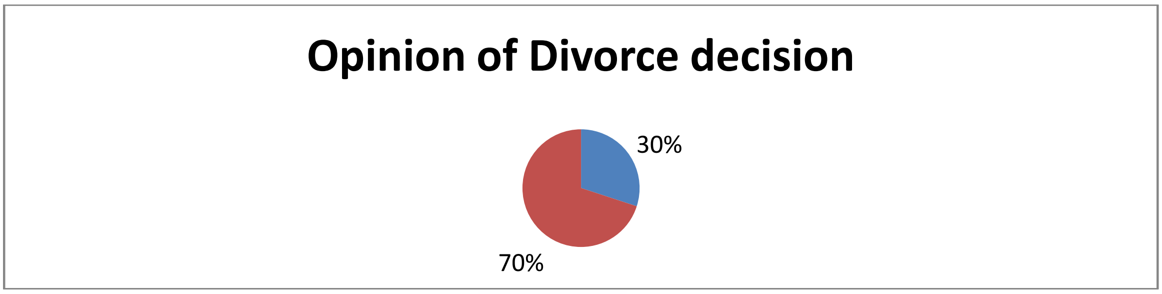
The above graph states the disorders of the women who is working in night shift. The major disorder is 60% of sleeping difficulties, 20% of backache, 7% of high blood pressure, 3% of continual tridness and digestive disorder, 5% of respiratory illness and 1% of frequent cold and fever.

TO KNOW THE OPINION OF THE MARRIED WOMEN EMPLOYEE WORKING IN NIGHT SHIFT ABOUT THE DIVORCE DECISION

TABLE 5: OPINIONS ABOUT DIVORCE DECISION

Opinion	No of Respondents
Good	15
Bad	35

GRAPH 5: OPINIONS ABOUT DIVORCE DECISION



Source: Field Survey

The above graph will give opinion of the married women employees about the divorce.30% of them will say that the decision is good but 70%of them will say the divorce decision is a bad decision.

H0: The night shift work will affect the family relationship of married women employees.

H1: The night shift work will not affect the family relationship of married women employees.

TABLE 6

Ratings	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly disagree
No of Respondents	4	11	9	8	18

Source: Field Survey

$X_2 = \frac{(O-E)^2}{E}$

$X_2 = (1.6) + (0.1) + (0.1) + (0.4) + (1.6)$

$X_2 = 3.8$

Degree of Freedom = (v-1) = (5-1) = 4

At 5% level of significance = $X_{2\,0.05} = 9.49$

The X_2 calculated at 5% significance is less than table value so the null hypothesis is accepted and alternative hypothesis is rejected.

1.13 FINDINGS OF THE STUDY

This research has studied about the effects of night shift on the families of the married working women. This study is conducted in the IT industry and below are the findings of the study

- The married women working in the night shift are of middle age ranging from 25- 30 years and most of them are having 4 years of marriage experience.
- The study says that the working hours are limited to 8 hours and more than that and even most of will not travel for more than 2 hours for their jobs so the employees will not feel more tiredness in the work.
- Almost all the IT firms will provide the best and safety transport facility to the employees who work in night shift. But most of women employees will not prefer the night shift because the hours are not preferred for working.
- The most of the IT firms will not provided the crèche for the children so the married women will face the problem of looking after the children.
- Most of the married women employees are living in the joint family and even they prefer joint family because they feel that the responsibilities are shared and eve someone will be there to take of children and it will be safe.

1.14 RECOMMENDATIONS OF THE STUDY

These recommendations are made in the light of the findings of the study. These recommendations can be applied in the IT firms to get better performance from the employees and if employees understand the recommendations then there can manage the family relationships in a better way.

- The married women employees can prefer the night shift only if their can plan well in advance about the commitments of the family and even the work.
- Most of the employees have taken the counseling this can be avoided if they can avoid the unnecessary stress and maintain the balance mind.
- The health hazards can be avoided to some extent if the women employees take the proper diet food and rest whenever it is possible.
- The 30% of the women employees agree with the divorce decision by giving the reason of their ego will be hurt if someone speaks about them. This should be avoided because if you are in ego status then it is not possible to achieve anything so we have to build a nature of harmony and adjustment.
- The IT firms have to provide the crèche because 15% of women employees are leaving in the nuclear family so there cannot concentrate on the work if the child is not secured.

1.15 CONCLUSION

After doing the study I can conclude that the married women employees who are working in the night shift face many problems from family, society and even health problem. The night shift has affected a lot in maintaining the family relationship. The night shift employees face severe health problems which will destroy the capability of the individual to work. I have observed that the most of the couples are going for divorce decision because of lack of mutual understanding between them. The couples are even avoiding children because nobody will be there to take care.

I can tell that there is no safety for women an employee working in night shift so the married women employees has to get more safety while there are working in night shift and the law should provide full support to the women employees when there are in problem. The women's has to get more support from the society and family members to work and to become more dynamic in the society.

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BANKS IN BRAZIL: CHALLENGES AFTER THE GLOBAL CRISIS

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ABSTRACT

Since the 1980s, the expansion of the private banking system in Brazil has favoured financial holding companies with diversified management of centralized assets which strategies are based on organizational changes, technological innovations, new labour relations, outsourcing, besides networks of retail outlets that offer financial services. This paper states that in spite of this expansion, the role of public banks has been outstanding in order to support the consumer credit cycle after the global crisis.

KEYWORDS

banking, Brazil, global crisis.

INTRODUCTION

Since the 1980s, the expansion of the private banking system in Brazil has favored financial holding companies with diversified management of centralized assets which strategies based on organizational changes, technological innovations, new labor relations, outsourcing, besides the networks of retail outlets offering banking services (correspondents).[1]

As of 2003, the Brazilian government was the prime mover of consumer lending as public banks turned out to expanding consigned loans to workers of the public sector and pensioners. However, after the global crisis, the role of public banks has been outstanding in order to support the consumer credit cycle. Since then, public banks Caixa Econômica Federal and Banco do Brasil have already stimulated, through competition, the sustainability of financial access.

This article aims to present an overview of the recent changes in the Brazilian banking sector in order to highlight the main role of public banks after the global crisis. Section one presents the banking dynamics before the global crisis. Section two examines the aftermath of the global crisis and the government policies oriented to liquidity and consumer credit growth. Finally, the conclusions identify challenges after the global crisis.

1. BANKING DYNAMICS BEFORE THE GLOBAL CRISIS

Changes in organization and dynamics of the Brazilian banking sector have been driven by political and institutional guidelines in a context of changing competitive strategies. In 1988, new financial regulations[2] officially sanctioned multi-function banks, which can be characterized by flexibility in the management of assets and liabilities integrating several financial portfolio -such as the commercial, investment, consumer finance, real estate, leasing and development. In the period between November 1989 and July 1990 the growth of the number of multi-function banks was 73.86% (from 88 to 153). However, it should be noted that this result was due mainly to the migration of specialized financial institutions towards multi-function banks.

In the first half of the 1990s, the banking expansion strategies were subjected to the parameters set by the stabilization plans. After the 1994 economic stabilization plan *(Real Plan)*, price stability and financial integration were pillars of the expansion of financial activities in Brazil. The changes in the regulatory framework encouraged capitalization and the increase of the scope and scale of the banking institutions.[3] Additionally, the Basel Agreement was adopted as a prudent guide. The key idea was that banking capital should be adjusted to risk assumed by financial institutions in the context of self-regulation and transparency of the markets. At this very juncture, the privatization of public institutions and the entrance of international retail banks contributed to accentuate the transformations already underway. In the late 1990's, the banking sector in Brazil became even more concentrated, privatized and internationalized. However, this trend caused the large private banks to adopt national strategies for consolidation and expansion in the domestic market based on the acquisition of control of small and medium institutions. Thus, mergers and acquisitions in the banking sector began to dominate the scenario of consolidation towards new structures further concentrated. During the layoffs of 1995 and 1996, on average, 174 workers were dismissed per day. In the first eight months of 1997, some 28,000 jobs were cut. This trend was exacerbated through a process of privatization, mergers, acquisitions and liquidations that reduced the total number of banks by 12% between 1999 and 2002. Reducing the number of employees was also associated with the intense process of outsourcing, especially from the 1990s onward.

In truth, a main feature of this adjustment was to reduce the total number of banks and increase the participation of foreign capital in the assets of the system by 2002. In 1994, there were 243 banks: the ten largest banks held 60.2% of total assets and 66.1% of total deposits. In 2002, there were 180 banks. The top ten had total assets of 68.3% and 75.7% of deposits. The new configuration of the banking sector in Brazil in terms of shares of domestic and foreign banks in total assets can be seen in Table 1.

TABLE 1: BANKING SECTOR IN BRAZIL: TOTAL ASSETS (in %, 1993-2003)

Banks	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Foreign Control	8.35	7.16	8.39	9.79	12.82	18.38	23.19	27.41	29.86	27.38	20.73
Domestic Control	40.67	41.21	39.16	39	36.76	35.29	33.11	35.23	37.21	36.93	40.76
Public Control	13.41	18.17	21.9	21.92	19.06	11.37	10.23	5.62	4.3	5.87	5.79
Credit Cooperatives	0.13	0.2	0.24	0.3	0.37	0.5	0.66	0.76	0.9	1.04	1.28
Total	100	100	100	100	100	100	100	100	100	100	100

Source: Banco Central do Brasil

[1] In Brazil, there are various retail outlets where bank services are offered. They can be post office agencies, lottery offices, supermarkets, etc.

[2] With regards to the regulatory framework and the evolution of the Brazilian financial system, it is important to emphasize the creation f the multi-function bank officially in 1988 by means of the Resolution No. 1524 -National Monetary Council.

[3] With regards to the regulatory framework and the evolution of the Brazilian financial system, in 1994 the Resolution No. 2099 - National Monetary Council – decided on the adoption of new requirements for corporate and prudential regulation. It also recalled that in the absence of regulation of Article 192 of the Federal Constitution, the Ministry of Finance through the Explanatory Memorandum No. 311, 24/08/1995, proposed the release of the entry of foreign capital in the institutions of the national financial system, which could be authorized by the President, when approved by the National Monetary Council.

In the second half of 1990, the demand for new sources of revenue, in addition to the traditional activities of financial intermediation, stimulated new movements to diversification. The search and consolidation of new opportunities for expansion strengthened and increased the performance of existing financial conglomerates, enhancing activities related to asset management (mutual and pension funds), insurance, credit cards, consumer credit, consortiums, and brokerage (Table 2).

TABLE 2: BRAZIL: NUMBER OF FINANCIAL INSTITUTIONS PER TYPE, 2001-2007

Type of financial institutions	2001 Dec.	2002 Dec	2003 Dec.	2004 Dec.	2005 Dec.	2006 Dec.	2007 Aug.
Multi-Function Bank	153	143	141	139	138	137	134
Commercial Bank	28	23	23	24	22	21	20
Development Bank	4	4	4	4	4	4	4
Caixa Econômica (Commercial and Saving Bank)	1	1	1	1	1	1	1
Investment Bank	20	23	21	21	20	18	17
Credit and Finance Institutions	42	46	47	49	50	51	52
Brokers (securities)	177	161	147	139	133	116	109
Brokers (exchange)	43	42	43	47	45	48	48
Dealers (securities)	159	151	146	138	134	133	132
Leasing	72	65	58	51	45	41	40
Real State credit institutions and Savings and Loans	18	18	18	18	18	18	18
Mortage Companies	7	6	6	6	6	6	6
Development Agencies	9	10	11	12	12	12	12
Subtotal	733	693	666	646	606	606	693
Credit Cooperatives	1379	1430	1454	1436	1452	1452	1466
Micro-credit Lenders	23	37	49	51	56	56	55
Subtotal	2135	2135	2169	2133	2114	2114	2114
others	399	399	365	364	333	333	330
Total	2534	2536	2534	2497	2464	2447	2444

Source: Banco Central do Brasil

Multi-function banks are still the largest deposit-takers and financial service providers, although their number in Brazil has declined since 2001 (see Table 2). The contraction of the number of institutions can also be observed in commercial and investment banking besides leasing and brokerage (securities) activities. In addition, the expansion of financial access has enabled cooperatives to increase their activities in number, although their participation remains low in terms of the total assets –1.28% as of 2003.

As a matter of fact, the advances in the flexibility of the banking strategies were made possible by encouraging the creation of financial holding companies.[4] In 2002, changes in the financial regulation sanctioned a new dynamic that favored the expansion of activities beyond the multi-function bank and involved the consolidation of new forms of concentration, diversification and management of capital in the banking sector. The main purpose of this corporate structure is to control diversified financial activities with a reduction of the opportunity cost of capital. Computer based investments, the diversification of delivery channels[5] and the flexibilization in working conditions turned out to be part of an accumulation strategy supported by transparent corporate governance standards. In this sense, the financial regulation has reinforced an internationalized competitive business environment that justified new labor practices with relevant impacts on the future of bank workers and their forms of organization in the financial branch.

Considering the strategy centered on operational efficiency with diversification of the delivery channels (Table 3), the emphasis felt on the self-service network. In the investment diversification process, the operational expansion of credit, and finance institutions, insurance and supplementary pension funds fostered the employment beyond the multi-function banks. Besides, the strengthening of the computer technological controls also enhanced the delivery channels diversification process. In the period between 2004 and 2007, the weight of the self-service banking transactions in addition to the growth of the internet banking[6], points of sale in the retail networks and correspondents are expressions of the recent transformations in the working conditions (Table 3).

TABLE 3: BANKING TRANSACTIONS BY TYPE, RELATIVE PARTICIPATION (2004-2007, in %)

	2004	2005	2006	2007
Self-service	32.9	30.7	32.4	33.5
Internet banking (corporations)	6.2	7.6	7.9	8.5
Internet banking (households)	6.8	9.0	8.9	8.4
Points of sale in retail networks(1)	3.3	3.2	4.1	4.1
Branches	12.0	10.6	10.4	10.4
Correspondents (2)	0.6	0.8	3.9	4.5

(1) such as shops, supermarkets, oil stations
(2) such as shops, lottery offices and post-mail offices.

Source: Febraban (2008)

The recent rise of transactions made through correspondents was supported by the expansion of physical units (Table 4). In this settlement, part of the financial transactions of the biggest retail banks has been transferred to the correspondents. Small banks like Lemon Triangulo have no bank workers related to traditional branches.

TABLE 4: CORRESPONDENTS RELATED TO SELECTED BANKS, 2009

Bank	Quantity of physical points/correspondents
BRADESCO	22,184
CAIXA ECONOMICA FEDERAL	13,773
BANCO DO BRASIL	13,645
HSBC BRAZL	7,198
LEMON	5,860
TRIANGULO	4,541
UNIBANCO	3,173
REAL	2,453
CITIBANK	2,113

Source: Banco Central do Brasil

[4] In 2002, the Resolution 3040 -National Monetary Council - was published in order to give guidelines to the new conditions of access to the financial system.
[5] In 2003, the Resolution No. 3110 - National Monetary Council- was published in order to define the possibilities of expansion of the correspondents.
[6] As for the Internet banking transactions, the users totalled 25 million individual clients, after a growth of 12.6 million between 2006 and 2007.

The biggest retail banks have also stimulated the correspondents´ expansion in order to enhance further mass credit services (Table 5). The workers that belong to these physical points are not considered bank workers, although they could develop similar tasks.

TABLE 5: CORRESPONDENTS RELATED TO MASS CREDIT SERVICES IN SELECTED FINANCIAL INSTITUTIONS, 2009

Institution	Conglomerate/holding	Quantity of physical points/correspondents
AYMORÉ	Real	31,.847
BANCO POPULAR	Banco do Brasil	7,414
BANCO FININVEST	Unibanco	4,239
UNICARD	Unibanco	1,633
FINASA	Bradesco	1,293
HIPERCARD	Unibanco	1,028

Source: Banco Central do Brasil

In the context of technological changes, the ATM (Automatic Teller Machine) network was expanded from 14,453 units in 2000 to 34,790 in 2007. In the meantime, the number of bank branches and traditional points of attendance has had little significant increase, rising respectively from 16,396 to 18,308 and 9,495 to 10,427 in the same period. In the context of diversification of the delivery channels, the number of correspondents has grown, from 13,731 in 2000 to 84,332 in 2007 (Table 6). Thus, the channel represented by the correspondents in 2007 showed a growth of 15.5% and currently represents over 80% of all physical facilities provided by banks. As of 2007, correspondents opened 10.4 million new current accounts and 5.7 million savings accounts. In fact, correspondents initially offered financial services, such as opening current and saving accounts, withdrawals and deposits, loans, payments and tax collection, among others. In other words, without abandoning transaction activities (means of payment), the Brazilian correspondents turned out to foster credit operations (sale of personal loans and credit cards) (Gonçalves et al. 2009)

TABLE 6: BANKING SECTOR IN BRAZIL: DELIVERY CHANNELS (2000-2007)

	2000	2001	2002	2003	2004	2005	2006	2007	Variation 2007/2006	Variation 2007/2000
									%	%
Bank Branches	16,396	16,841	17,049	16,829	17,260	17,515	18,067	18,308	1.3	11.7
Traditional Points (1)	9,495	10,241	10,140	10,045	9,837	9,527	10,220	10,427	2.0	9.8
ATM network (2)	14,453	16,748	22,428	24,367	25,595	27,405	32,776	34,790	6.1	140.7
Correspondents (3)	13,731	18,653	32,511	36,474	46,035	69,546	73,031	84,332 (3)	15.5	514.2
Total	54,075	62,483	82,128	87,715	98,727	123,993	134,114	147,857	10.3	173.4

1. Include advanced points of attendance (PAA), points of banking attendance (PAB), points of cooperative attendance (PAC), points of micro-credit attendance (PAM), advanced points of rural credit (Pacre), points for collection and payment (PAP), points to buy gold (PCO) and administrative units.
2. Automatic Teller Machines
3. Information form Febraban

Source: Banco Central do Brasil

Indeed, due to the overall transformations and the intensification of the technological resources, the trends in the banking computer technology investments turned to favor the expansion of the financial services in the context of a model of flexible production. The accumulation pattern enhanced not only the productivity growth, but also the increase in the work intensity. The search of productivity growth fostered the adoption of outsourcing (Sanches, 2006). In the last decade, there has been an increase in outsourcing of services related to telecommunications, help desk, projects and maintenance of systems, in addition to the processing of cards. In 2007, the banks outsourced a higher volume of services related to the maintenance of systems. The outsourcing of the back-office activities are beginning to be increased (Table 7).

TABLE 7: OUTSOURCING OF ACTIVITIES: DEGREE OF UTILIZATION , IN %, 2005-2007

Year/Activities	2003	2005	2006	2007
Telecommunication	47	68	68	74
Print Services	21	62	76	73
Help desk	32	48	63	67
Project and development of applicatives	-	52	62	64
System maintenance	32	43	43	55
Card Processing	21	52	58	54
Software House	nd	43	52	46
Back up site	11	38	49	44
Body shop	nd	20	37	37
Back office	-	-	-	7
Infrastructure de Central Processing Data	11	29	29	33

Source: Febraban (2008)

As a result of the new trends, management strategies centered on the shareholders have been the focus of the banking sector while productivity strategies put pressure on th reduction of the workforce (Table 8). The participation of human resources in the financial results of the banking sector has been strongly reduced in the period between 2000 and 2007.

TABLE 8: BRAZILIAN BANKIGN SYSTEM*: DISTRIBUTION OF THE FINANCIAL RESULTS, 2000 -2007, IN %

Year/December	2000	2002	2004	2005	2006	2007
Human Resources	60.6	42.3	43.5	37.98	39.6	33.2
Governement	22.2	23.1	26.2	25.1	25.9	24.3
Profit/ shareholders	17.3	34.7	30.4	37.0	34.4	42.5

* information from 150 banks

Source: FEBRABAN (2007)

2. THE AFTERMATH OF THE GLOBAL CRISIS: GOVERNMENT POLICIES ORIENTED TO LIQUIDITY AND CONSUMER CREDIT GROWTH

In the period between 2005 and 2007, the annual rate of growth of credit to households was 30%. As a matter of fact, banks modified consumer credit risk management practices by adopting new rules and standards in terms of types of contracts, credit –risk management, transaction costs and delivery channels. Consumer lending was stimulated by less-strict requirements in terms of income certification, payroll loans (consigned loans), loans against cars, besides the issuance of credit cards (Table 9). Banks turned out to focus on credit segments that would preserve liquidity targets and yield higher returns (Table 10).

TABLE 9: BRAZIL: CREDIT INDICATORS, 2005- 2010

Year/December	Total credit as a percentage of GDP (households plus corporations) In %	Consumer credit loans Average rate of growth (December/January) In %	Number of borrowers- individuals registered at the Central Bank of Brazil (In millions)
2005	28.3	21.46	10,580
2006	30.9	21.08	12,509
2007	35.2	24.71	15,146

Source: Bacen. Banco Central do Brasil. Sistema Gerenciador de Séries Temporais (SGS) www.bcb.gov.br/?**series**temp; Bacen (2011)

TABLE 10: SPREAD IN CREDIT OPERATIONS, FREE RESOURCES, IN %, 2000- 2010, DECEMBER

Year	Corporations *	Personal loans*	Tota consolidado	Meta Selic	CDI	
2000	12.3	49.7	**26,0**	**15,75**	**16,13**	
2001	13.3	51.0	**28,7**	**19,00**	**19,05**	
2002	16.3	54.5	**31,1**	**25,00**	**22,91**	
2003	14.4	50.9	**30,0**	**16,50**	**16,81**	
2004	13.0	43.9	**27,2**	**17,75**	**17,46**	
2005	13.8	42.7	**28,8**	**18,00**	**18,15**	
2006	13.5	39.6	**27,2**	**13,25**	**13,14**	
2007	11.9	31.9	**22,3**	**11,25**	**11,11**	

Note: * The gross spread is obtained from the difference between the rates of funding and credit operations. Fixed rate operations are considered.

Source: FEBRABAN (2005)

Considering this background, the immediate responses of the government to the 2008 global crisis included measures aimed to increase liquidity and support fundraising in the domestic financial system to maintain and/or increase the supply of credit. Under the impact of the 2008 global crisis, credit policies supported the recovery of aggregate demand and the maintenance of high employment levels while monetary and financial stability was preserved.

Table 11 summarizes the set of measures taken by the Brazilian government between October and December 2008. In this scenario, the government decided to stimulate the levels of domestic consumption in order to preserve economic growth. The redefinition of credit policies- oriented to households was centered on the expansion of domestic credit flows by public banks (Banco do Brasil, Caixa Econômica Federal).

TABLE 11: RESPONSES TO THE FINANCIAL CRISIS: LIQUIDITY AND CREDIT MEASURES, 2008

Measures	Objectives
Reduction of the rate of compulsory deposits (at time deposits) from 45% to 42%.	Increase liquidity in the domestic financial system and enhance interbank flows and domestic credit operations
Definition of new requirements and conditions in compulsory fundraising/ allocation of bank resources.	Support credit flows to agriculture.
Redefinition of the compulsory allocation of bank resources.	Support credit flows to civil construction (housing).
Introduction of financial changes (assets, risk diversification) in the management of the deposit insurance system.	Increase liquidity and support fundraising in the domestic financial system.
Definition of new financial strategies (assets, spreads, risks, capitalization) in the management of public banks, mainly Banco do Brasil, Caixa Economica Federal and BNDES.	Support credit flows to households, civil construction and private companies.

Source: Banco Central do Brasil

The reduction of 0.8% of the GDP (Gross Domestic Product) in the first quarter of 2009, in relation to the last quarter of 2008, revealed a soft landing of the Brazilian economy. To achieve this result, the credit expansion of the public banks was decisive (Table 12). As a matter of fact, the relative participation of public banks in the total amount of credit of the domestic financial system grew from 37.15% on February 2009 to 37.6% in March 2009, while this participation was only 34.2% in March 2008.

TABLE 12: CREDIT OPERATIONS IN THE BRAZILIAN FINANCIAL SYSTEM, TOTAL AMOUNT BY ECONOMIC ACTIVITY. FIRST QUARTER 2009, RATE OF CHANGE, IN %

	Public banks 1/	Domestic private banks	Foreign Private Banks
Public Sector	4.2	-0.4	-7.1
Private Sector			
Industry	2.8	1.2	-2.6
Housing	8.0	3.7	7.1
Agriculture	2.0	-3.5	2.3
Trade	3.5	-7.2	-6.1
Households	9.3	3.5	0.1
Total private sector	4.8	-0.9	-0.4
Total (Public and private sectors)	4.8	-0.9	-1.0

1/ Institutions where the government has participation superior to 50% in capital with right to vote.

Source: Banco Central do Brasil.

Table 12 reveals the role played by public banks in order to support the credit flows to the public and private sectors in a conjuncture where there was a reduction of the total amount of credit operations supplied by domestic and foreign private institutions. Indeed, in the first quarter 2009 the actions of the public banks have been outstanding in their attempt to preserve households´ level of spending. Up to 2010 consumer loans increased sharply in all the regions of the country. The number of borrowers reveals the recent fast growth of consumer loans, increasing from 17,927 million people, as of December 2008, to 30,159 million in December 2010 (Table 13). The highest rates have been related to personal loans, credit cards and loans against cars. [7]

TABLE 13: BRAZIL: CREDIT INDICATORS, 2005- 2010

Year/December	Total credit as a percentage of GDP (households plus corporations) In %	Consumer credit loans Average rate of growth (December/January) In %	Number of borrowers- individuals registered at the Central Bank of Brazil (In millions)
2008	40.5	19.91	17,927
2009	44.4	15.16	22,233
2010	46.4	16.95	30,159

Source: Bacen. Banco Central do Brasil. Sistema Gerenciador de Séries Temporais (SGS) www.bcb.gov.br/?seriestemp; Bacen (2011)

[7] Almost 60% of the total consumer credit refers to loans against property or cars and consigned loans (Financial Times, 2011).

With the advancement of public banks, their participation in the credit consumer market increased 10 % from 2008 to 2011. As of 2011, this participation amounted more than 45 % as of 2011. During this period, the rate of asset growth in the three largest private banks amounted 12.9%. However, the public bank Banco do Brazil achieved an increase of 20.8% in total assets in that period.

4. FINAL CONSIDERATIONS

After the global crisis, private banks have been increasingly selective in consumer lending (Abbc, 2012). In a conjuncture of crisis, as Minsky (1986) warned, financial fragility tends to grow due to increased indebtedness. Considering the Brazilian evidence, the delays in payroll of personal loans grew from which 5.7 % of total loans in December 2010 to 7.8% in November 2012, mainly in credit cards and overdrafts.

In addition, competitive pressures have increased in the banking sector, since retail private banks have been trying to regain or even maintained the market share that they lost to public banks in the aftermath of the global crisis. The comprehension of this Brazilian business reality is decisive to any transformation in institutions and policy making to promote sustainable economic growth and financial inclusion in the context of economic global integration.

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A STUDY ON POTENTIALITY OF SILVER AS AN INVESTMENT ASSET

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ABSTRACT
In the last few years the countries around the world are facing burden of global economic slowdown and the same is indicated in their slower GDP growth and falling stock market prices. Even under these precarious conditions the commodity markets are experiencing considerable growth and are offering good returns to the investors. Among all commodities, though considered as highly volatile, silver is a very attractive commodity to invest. In contrast to the common belief, silver is relatively a safe investment in the long run and assures significantly high returns to the investors. The present study aims to prove potentiality of silver as an investment asset using simple risk, return analysis and other basic fundamentals. The results of the analysis prove that silver is a good asset for investment vis-à-vis gold and stock markets and is a consistent performer under different economic conditions.

KEYWORDS
Risk, Return, Gold-Silver Ratio, Industrial Demand.

INTRODUCTION
Precious metals remain the most undervalued of all the asset classes. Precious metals, and particularly silver, remain the most undervalued of all the commodities. Silver is even more undervalued than gold and is undervalued when compared to other strategic commodities such as oil and uranium. Silver's dual role as both a precious metal for investment as well as an industrial metal for commercial use makes silver futures and options contracts invaluable financial instruments worldwide. Affected by mine production, industrial demand, and the general health of the world economy, the price of silver can be volatile beyond what many consider acceptable risk. There is less silver bullion inventory in the world than there is gold bullion inventory; around one billion ounces of silver versus three billion ounces of gold. Common sense would suggest that an item more rare than another similar item would reflect that relative rarity in price. While silver has vastly outperformed gold over any reasonable time period over the past ten years, the rarity of silver is vastly underappreciated. In spite of its splendid performance in last one year investment analysts look at silver with more skepticism and investors avoid it from their investment decisions. The present paper aims to highlight the strengths of silver as an investment asset and reasons why it should be a part of one's investment portfolio. The discussions begins with analysis of various methods available for investment in silver, factors contributing to price variation silver, test of efficiency of futures trading in silver contracts in Indian context and ends with analyses the performance of silver as an investment avenue.

FACTORS AFFECTING SILVER AS INVESTMENT ASSET
Major set of factors affecting the prices of Silver are

1. RARITY

Rarity is a very tricky factor that goes into play when evaluating prices of objects. Like gold, the role of silver historically was as a currency. And similar to gold it was removed from its role as a currency and primarily became a commodity. More recently silver is trying to regain its role as a currency. However, silver's role as a commodity was far more successful than gold's, as it has a lot more industrial uses than gold. As a result, silver is getting consumed at a faster rate than it is being mined, and therefore it is becoming rarer. Should this trend continue, silver will one day transition from precious metal to rare earth metal. This will have a significant impact on its price. Failing that, silver's price will be determined by how it stacks up against gold as a currency, and whether both are required or not.

2. INDUSTRIAL, COMMERCIAL AND CONSUMER DEMAND

Industrial applications of silver are limitless. Silver is a rare metal that is used in various industrial areas beyond jewelry making. In recent past the growing demand from the industry has expanded the role of silver in the global silver markets. Unique technical proficiency of silver makes it suitable for a wide array of applications, both in industry and healthcare, but also limits the ability of users to switch to other low cost alternatives. Most common uses of silver include manufacturing of Radio Frequency Identification, Super capacitors, Water purification, medical uses, wood preservatives, batteries, auto catalysts, super conductors, photovoltaic's , brazing alloys and soldiers, ethylene oxide etc. Silver is expected to continue its bullish run in industrial demand and the total demand is expected to increase to a record high of 665.9 Million Ounces in 2015 from present 487.4 million ounces.

3. DECLINING SUPPLY OF SILVER

The supply of silver is inelastic. Silver production will not ramp up significantly if the silver price goes up. Supply didn't increase in the 1970's when silver rose 35 fold in price - from $1.40/oz in 1971 to a high of nearly $50/oz in 1980. Importantly, silver is a byproduct metal and some 80% of mined silver is a byproduct of base metals. Higher prices for silver will not cause copper, nickel, zinc, lead or other base metal miners to increase their production. In the event of a global deflationary slowdown demand for base metals would likely fall thus further decreasing the supply of silver.

There are only a handful of pure silver mines remaining. This inflexible supply means that we cannot expect significant mine supply to depress the price after silver rises in price. It is extremely rare to find a good, service, investment or commodity that is price inelastic in both supply and demand. This is another powerfully bullish aspect unique to silver.

4. **EASE OF INVESTMENT**

Like any other precious metals, silver is also used as an investment. Even in historical times silver was considered as one of the forms of money and store of value. In spite of silver losing its role of money since the end of silver standard by many developed countries, even today investors have faith in silver as a worthy investment asset. Different modes available for investors to invest in silver which makes it relatively easy to invest in them. Most important forms of investments in silver are Bullion bars, silver coins or Silver round, Silver exchange-traded products (ETPs), Silver certificates, Silver accounts offered by banks, Silver futures and options at commodity exchanges, Contract for Differences (CFD) and Shares in Silver mining companies.

5. **PRICE OF GOLD**

Despite all of silver's fundamental drivers, gold is considered as the primary driver for silver prices. In a bullish environment, speculators tend to be interested in most of the precious metals. So it leads to an increase in the investment demand for silver. Silver having a comparatively smaller market as compared to gold, it does not take much time to drive the prices higher. At the same time when the environment is bearish, investors lose confidence in silver very fast and cause the prices to fall. Analysis of the trend of the gold-silver ratio clearly indicates that silver has a tendency to follow the prices of gold. During the subprime crisis when the view was bearish we clearly see the trend that during the days when the prices of gold increased silver also increased. However, it would pace the gain of gold at best. During the days when the gold prices decreased we see that the silver prices plummeted by an even greater margin. Similarly akin to other precious metals, Silver could be used as a hedge against financial stresses like inflation, devaluation, economic slowdowns.

6. **LARGE TRADERS AND INVESTORS**

This is a crucial factor that many investors tend to overlook when it comes to assessing silver value. Silver market is a much smaller market than gold. Large investing funds or groups can inadvertently affect silver value in the upstream or downstream deciding to purchase significant silver assets or, on the contrary, trying to sell them off. History also gives testimony to such incidents hunt brothers (1973), warren buffet (1997) etc. driving silver prices substantially which may not be in the benefit of marginal investors.

7. **US DOLLAR AND OIL PRICES**

In a world saturated in fiat currencies, many investors have turned to silver and gold for protection. That's because the precious metals are a natural hedge against devaluing currencies. Historically oil has shown a strong correlation with gold. Gold and silver also seem to have a stable relationship. Based on this it might be logical to conclude that oil and silver should also have a stable relationship. Moreover silver and oil should have greater correlation than silver and gold as they are industrial elements and the factors affecting their demands would be common. However, contrary to this silver is not a perishable commodity whereas oil is. Since the 1960's silver and oil have had a 0.7 positive correlation, this is quite strong.

8. **PERFORMANCE OF STOCK MARKETS**

There appears some interplay between the fortunes of the stock markets and capital flowing into silver. Silver's appeal as an alternative asset is definitely higher when traditional investments are not faring well. Yet, the relationship between silver and the stock indices are far complex than merely a direct inverse or even parallel relationship. Running regression across top indices such as S&P 500, Dow Jones, BSE and NSE we see a common pattern emerging. The correlation between silver and the stock markets was low pre-recession. But we see that during the subprime crisis and post it, silver has been highly correlated with the stock markets. This shows the returning demand for investment in silver with the growing confidence in the markets.

OBJECTIVE

- To analyse the efficiency of Silver as an investment asset

METHODOLOGY

The present study is an analytical study based on secondary data. Data consisting of monthly closing prices of three investments, namely, silver, gold and BSE Sensex is analysed for a period of 18 years. Selection of assets for comparison is based on the premise that gold is the most sought after good for investment in commodity markets and BSE Sensex is considered as a proxy or benchmark for performance of equities in India. To study the efficiency of silver over other asset classes the simple techniques of risk and return analysis are performed. Analysis of is risk done using simple average of returns and risk was measured using Standard Deviation (SD). Further, the study measures the time varying performance of silver against selected assets by breaking the period under study into 3 different time parts from 1995-2000, 2001-2006, and 2007-2012. In addition price ratio between silver and gold, trends in demand for silver fabrication and trends in silver investments is also measured.

RETURN AND RISK ANALYSIS

In order to assess the efficiency of silver as an investible asset we have compared its performance against Gold and Sensex (Volatility index of Bombay Stock Exchange). For the analysis monthly data for a period of 18 years is collected and analysed using simple risk and return parameters. Here Returns represent simple average return computed using the formula Mean Returns

$$\bar{X} = \frac{\sum X_i}{N}$$

Where

$(\bar{X})$ = Mean Return on Asset

X_i = Return on asset for i'th period

i = time of return

N = Number of Values in the data

Similarly the volatility in returns or risk is being computed using Standard Deviation (SD)

$$SD = \sqrt{\frac{\Sigma(X_i - \bar{X})^2}{N}}$$

Where

SD = Standard Deviation of asset returns

$(\bar{X})$ = Mean Return on Asset

Xi = Return on asset for i'th period

i = time of return

ANALYSIS AND INTERPRETATION

1. **RISK AND RETURN ANALYSIS**

Risk and return analysis of silver, gold and Sensex indicates that silver has outperformed others during the period of study with an average annual returns of 16.65% (Table 1). Further, the analysis also indicated that silver has also been more consistent and well ahead of other assets under different time periods or economic conditions. Even during non-recessionary conditions silver was found delivering higher returns gold and Sensex. On risk parameter, though gold had a lower risk, silver outperformed it in terms of return. Similarly, though Sensex indicates better performance during the second period (Jan-2001 to Dec-2006), it has underperformed in other periods and consistently carried a very high risk in terms of volatility (Chart 1 and 2).

TABLE 1: RETURNS AND RISK IN SILVER, GOLD AND SENSEX DURING 1995-2012

Time Frame		Mean Return (x)			Risk (SD)		
From	To	Silver	Gold	Sensex	Silver	Gold	Sensex
Jan-95	Dec-00	7.38%	1.53%	5.07%	0.15	0.1	0.32
Jan-01	Dec-06	19.31%	14.41%	26.78%	0.18	0.08	0.33
Jan-07	Dec-12	23.26%	22.44%	14.71%	0.32	0.12	0.48
Jan-95	Dec-12	16.65%	12.79%	15.52%	0.23	0.13	0.37

TABLE 2: ANNUALISED RETURNS SILVER, GOLD AND SENSEX DURING 1995-2012

Year	Silver	Gold	Sensex
1995	20%	14%	-14%
1996	-4%	-2%	-1%
1997	31%	-14%	19%
1998	-7%	10%	-16%
1999	9%	-1%	64%
2000	-4%	3%	-21%
2001	-4%	4%	-18%
2002	7%	21%	4%
2003	15%	16%	73%
2004	22%	5%	13%
2005	27%	20%	42%
2006	50%	21%	47%
2007	-5%	13%	47%
2008	-11%	25%	-52%
2009	64%	33%	81%
2010	61%	19%	17%
2011	20%	38%	-25%
2012	11%	7%	20%

CHART 1 : ANNUALISED RETURNS IN SILVER, GOLD AND SENSEX DURING 1995-2012

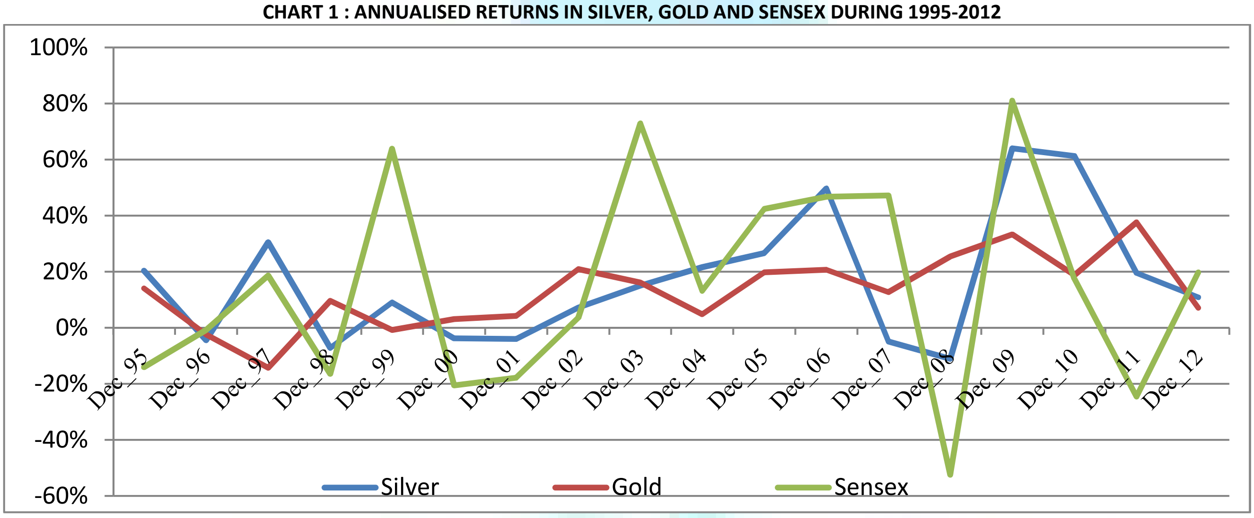
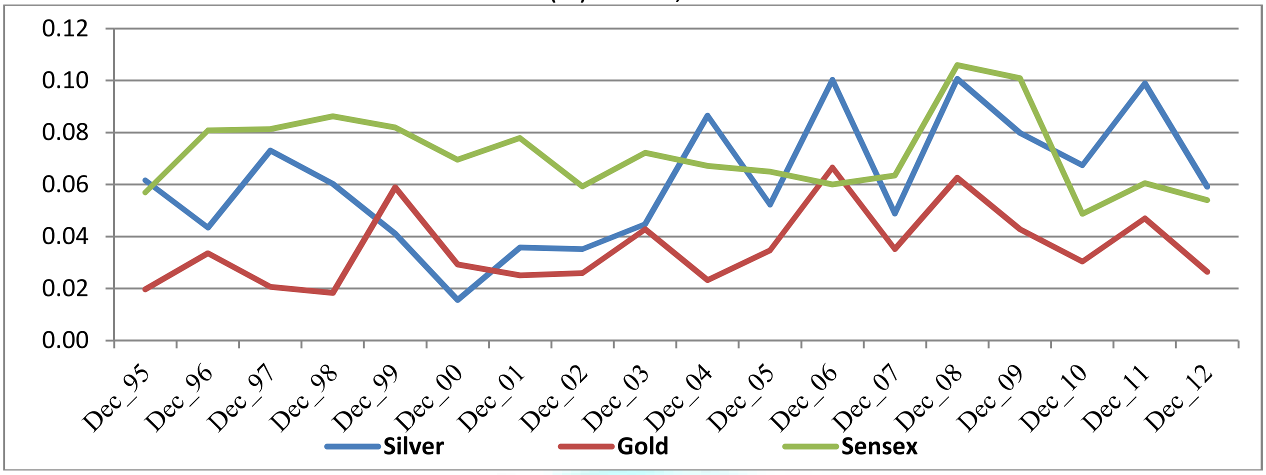


TABLE 3: ANNUALISED VOLATILITY IN SILVER, GOLD AND SENSEX DURING 1995-2012

Year	Silver	Gold	Sensex
1995	0.06	0.02	0.06
1996	0.04	0.03	0.08
1997	0.07	0.02	0.08
1998	0.06	0.02	0.09
1999	0.04	0.06	0.08
2000	0.02	0.03	0.07
2001	0.04	0.03	0.08
2002	0.04	0.03	0.06
2003	0.04	0.04	0.07
2004	0.09	0.02	0.07
2005	0.05	0.03	0.06
2006	0.10	0.07	0.06
2007	0.05	0.04	0.06
2008	0.10	0.06	0.11
2009	0.08	0.04	0.10
2010	0.07	0.03	0.05
2011	0.10	0.05	0.06
2012	0.06	0.03	0.05

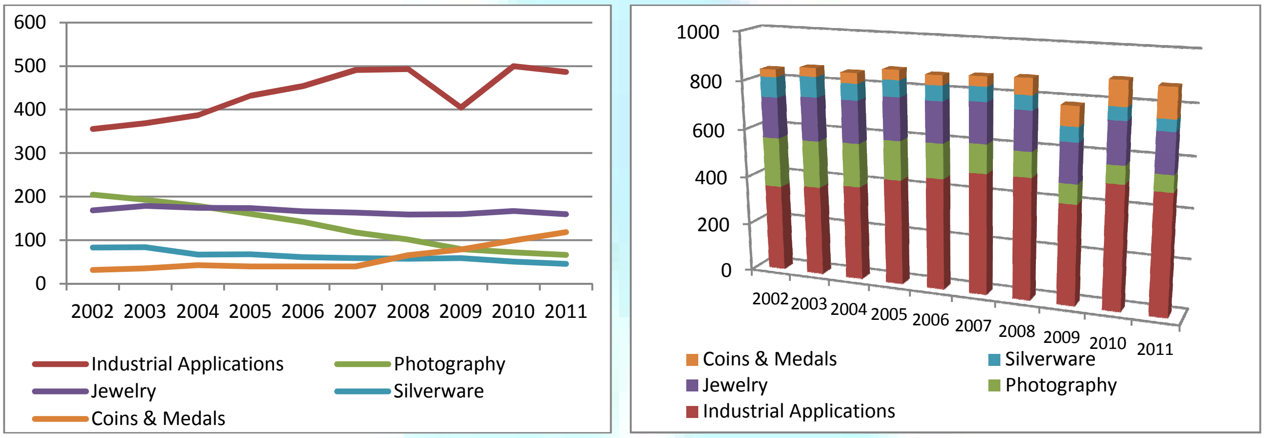
CHART 2: ANNUALISED VOLATILTIY (SD) IN SILVER, GOLD AND SENSEX DURING 1995-2012



2. INDUSTRIAL DEMAND ANALYSIS

Silver is a very unique metal which acts both as an asset and an industrial commodity. Due to its distinctive physical properties silver enjoys a higher demand from industrial users. Though silver continues good run from Jewelry and coins and medals a large portion of its demand comes from Industrial buyers. Even though there was a temporary decline in industrial demand during 2008-10 (on account of global economic crisis), chart 3 clearly indicates this trend of increasing demand by the industry. The industrial experts also forecast the upward trend to continue for a long period on account of lack of substitutes and continued exploration on new applications of silver in industry.

CHART 3 : GLOBAL SILVER FABRICATION DEMAND (in millions of ounces)

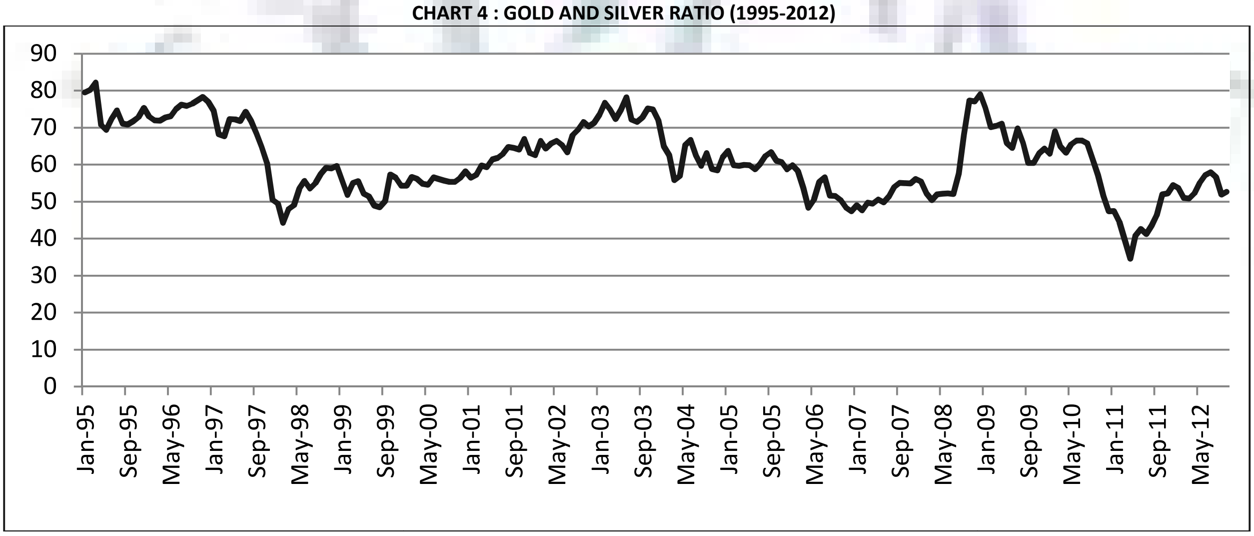


Source : World Silver Survey 2012

3. GOLD AND SILVER RATIO

A series of recent announcements of aggressive stimulus programmes by United States, European Union , Bank of Japan joined the Fed, ECB, China, South Korea and others are extremely inflationary and bullish for gold and silver and bearish for the purported safe havens namely the U.S. dollar, long term treasuries, Euro, Yen and Yuan. Silver has been outperforming gold over the past few years as investors are hoarding and buying poor man's gold to hedge against worldwide quantitative easing and pump-priming being implemented by Central Banks around the world to devalue their respective currencies. Chart 4 indicates the trend of silver outperforming gold resulting in narrowing down the differences between them since 2003. The years 2006, 2008 and 2011 saw the ratios reaching new low marks indicating changes in preference towards silver. In 2011 the ratio between gold and silver had touched historical of 33:1. The experts opine that though analysts still placing their confidence in gold - and skepticism in silver, the trend may change in future in the light of economic development happening round the globe and unique advantages of silver over gold discussed in preceding sections.

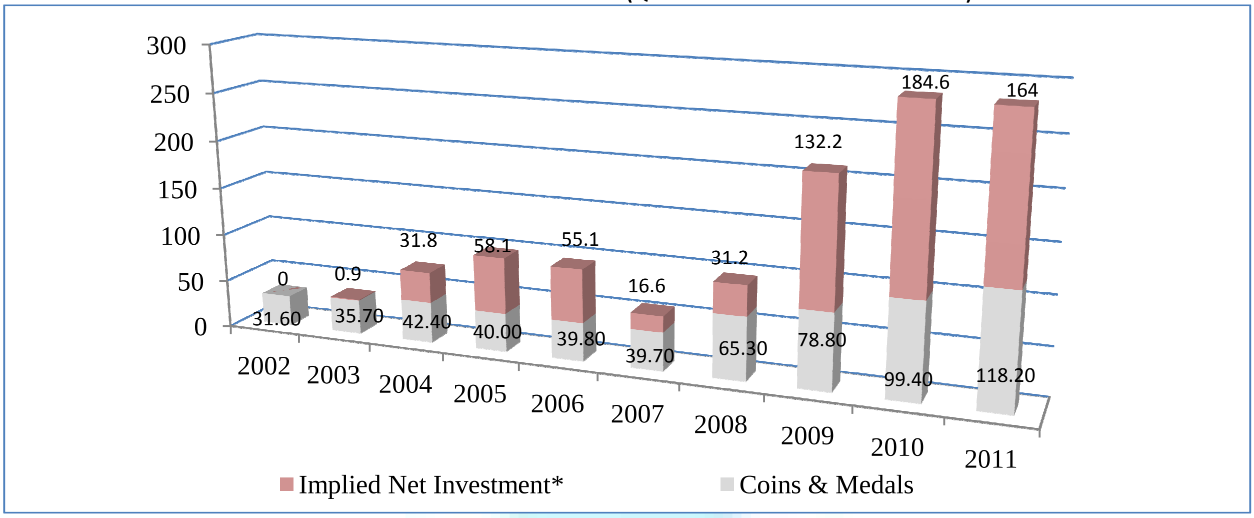
CHART 4 : GOLD AND SILVER RATIO (1995-2012)



4. **WORLD SILVER INVESTMENT**

Since the revival of silver market in 2003 and the subsequent Bull Run it experienced, the demand for silver investment has grown beyond expectations. Though the growth in coins, medals, silverware and jewelry has been moderate other implied net investments in silver has grown beyond leaps and bounds (Chart 5). Here implied net investments physical silver that is held by an ETF and silver held in various commodity warehouses such as COMEX and TOCOM. In other words it indicates the silver kept by investment houses and investors for investments purposes and this also prove the growing potentials of silver as an investment asset.

CHART 5: WORLD SILVER INVESTMENT (QUANTITIES IN MILLIONS OF OUNCES)



* Physical silver held by ETF's, Commodity warehouses

CONCLUSION

Analysis of risk and return of Silver, gold and BSE Sensex indicates that though silver suffers from a higher volatility compared to gold but still is a good option for investors as the returns are consistently higher than gold in last 18 years and even its volatility is lesser compared to BSE Sensex, which is the market index for India. Increasing industrial demand, improvement in ratio between gold and silver, availability of good number of variety in silver are the other factors contributing to the substantial rise in demand and price of silver. In addition the advantages of higher liquidity, wider marketability, store of value, psychological satisfaction etc it makes it one of the best assets to invest in. Further, bad outlook in US and Euro zone countries and their impact on trade and industry coupled with relative saturation of gold prices would certainly drive people to this unique commodity known as poor man's gold.

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ECONOMIC DEVELOPMENT AND TOURISM IN SIKKIM: A CRITICAL REVIEW

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ABSTRACT

After becoming the 22nd state of India in 1975, Sikkim is maintaining a double-digit growth for last three decades and vast amount of human capital has also been created. Among the North-Eastern states, Sikkim's growth performance has mostly remained satisfactory. Sikkim has also strengthened its place in the national and international tourism map. During 1981 to 2011, the domestic tourist grew at compound annual rate of 11.87 percent, foreign tourist grew at an annual rate of 6.98 per cent and both domestic and foreign tourists grew at 11.50 percent. Expansion of tourism has not only created employment, but also give a fillip to other sectors like transport, telecommunication and retail selling and added positive impetus to growth and development of the economy. However growth is pronounced where government has direct role. The collective contribution of transport and communication, trade hotels and restaurant and banking and insurance were found to be highest in 1990-91 and thereafter it started declining. The paradox is that number of tourists in absolute sense has increased but income added is declining. This implies that average expenditure by a tourist is declining. Decline in foreign tourist as percentage of total tourist arrival may also be reason for decline in collective share of transport and communication, trade hotels and restaurant and banking and insurance to GSDP. In view of the saturation of government jobs as well as government sponsored economic growth, tourism is the most viable option for the State to make it a self-sufficient economy.

JEL CODES
B4, O1, R1, R580.

KEYWORDS
Acceleration and deceleration of growth, Development, Growth, , Role of Government, Tourism.

1. INTRODUCTION

Over the past 20 years, tourism has emerged as one of the world's largest industries and has been growing at a rate more than 5 percent per annum. For most of the populous countries of the World, domestic tourism acts as a foundation of a viable and sustainable tourism industry. It also tends to focus increasingly on rural destinations. With a growing interest in the cultural pattern of different countries (i.e. lifestyles, cuisine, ceremonies, music, religious beliefs, traditions, customs, and history), there is a strong potential to encourage international tourism to the rural areas as well.

As far as India is concerned, its share of global international tourism is quite meagre and accounts for about 0.38 percent and earns about 0.69 per cent (in terms of US$) of total global receipts from tourism. On the other hand, India's share of global domestic tourism is much higher and around 4.6 percent of estimated global domestic tourism. In contrast, India's neighbours in South and South-East Asia have more effectively utilized tourism for economic growth and employment creation (20 Years Perspective Plan for Sustainable Tourism Development in the State of Sikkim, 2002).

After becoming the 22nd state of India in 1975, Sikkim made steady progress on the expansion of education and health care. Creation of vast amount of human capital has been achieved within a short span of time (Chakrabarti, 2009). According to 2001 census (provisional), the literacy rate of Sikkim stands at 69.98 per cent (76.73 per cent for males and 61.46 per cent for females). This represents a sharp rise against the 1981 figures of 34.05 per cent overall literacy rates (43.95 per cent for males and 22.20 per cent for females). Progress in this respect has been achieved by spending a large part of the central grant[1] to the State in the social sector. Creation of vast amount of human capital has been achieved within a short span of time. Its real per-capita income stands at Rs. 29,506 (in 2008-09) which is higher than the all India average.

In last two and half decades, Sikkim's economy at macro level is growing at a steady rate. Real average growth rate during 2000-01 to 2008-09 is at 14 per cent, which is not only impressive but phenomenal also. Sectoral contribution shows that the contribution of primary sector towards Gross State Domestic Product (GSDP) is continuously falling while that of services is increasing (Figure-A). Sikkim is endowed with tremendous natural beauty with lush green valleys to snow capped mountains. The state expanding from sub-tropical zone to alpine desert houses extremely rich biological diversity comparable with some of the richest region on earth. Equally, interesting are the ethno-cultural diversity within this small Himalayan state. It is to mention that the state has twenty-eight mountain peaks, twenty-one glaciers, 227 high altitude lakes, including the Tsongmo Lake and Khecheopalri Lakes, five hot springs, and over 100 rivers and streams. Eight mountain passes connect the state to Tibet, Bhutan and Nepal. The river Teesta flows through the state from north to south (Sikkim Statistical Profile, 2004-05). As a natural corollary, Sikkim is gradually strengthening its place in the national and international tourism map as a hot spot for scenic beauty, an ideal place for adventure tourism, ecotourism and spiritual tourism (Chakrabarti, 2009).

In this paper, at the first place, an attempt has been made to critically review the changing growth pattern, sectoral income scenario and pattern of development that the state of Sikkim experienced in past 29 years. In addition, the growth performance of Sikkim has also been compared with remaining seven North-Eastern states of India. Finally, the paper seeks to explore the growth of tourism in Sikkim and how far tourism is contributing towards the economic growth and development in last three decades.

2. METHODOLOGY

The paper is based on analysis of secondary data in varied nature. For sector wise comparison of growth rates for the decades of 1980-81 to 1990-91, 1990-91 to 2000-2001 and 2000-2001 to 2008-09, for the state of Sikkim, compound annual growth rates have been used. To showcase a comparative picture of growth scenario of Sikkim over time vis-à-vis other North Eastern States, estimates of growth of SDP in different States of North-eastern region are calculated by using two functional forms, first the exponential form of the type:

$Y_t = a\, e^{bt} v_t$ ------------------(1)

This can be transformed linearly as follows

$\ln Y_t = a + bt + u_t$ -----------(2)

Where

Y_t = Output

a = Constant term

t = time (in years)

$u_t = \ln v_t$

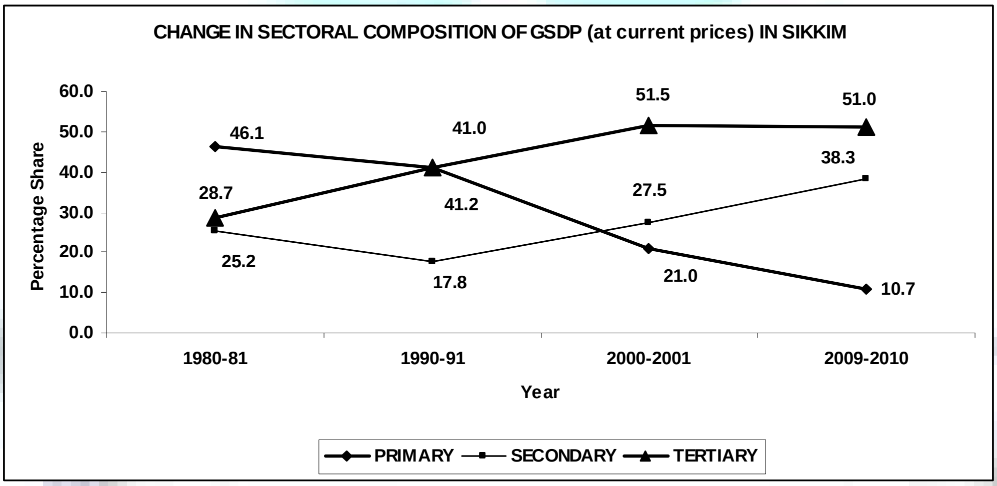
= error term such that $\ln v_t \sim IND\,(0, \sigma^2)$

By deducting 1 from the antilog of the estimates of the coefficient of b and multiplying it by 100 we shall calculate growth rate.

Or, Growth rate = (antilog of estimated b -1)*100
Or, growth G (t) = $(1/Y_t)*(dY_t / Y_t)$ = b and implies that if b>0 growth rates are constant over time. The accepted fact is that the trend estimation is 'a convenient way of summarising a long term series' (Vaidyanathan, 1980:3-4) and 'analysis of the output-time relation serves a useful purpose' (Boyce, *op. cit.*:258).
To examine, statistically, the acceleration or deceleration (or constants) of growth and/or growth rates or changes in the growth rates of any major components of National income- namely agriculture, industry and services during a period or few sub-periods trend analysis is carried on for estimating growth curves and this allows to define the quantitative characterisation of the path of growth of economy and can generally be used for predictive or forecasting purposes (Reddy, 1978:807).
The exponential form of growth curve assumes a constant growth rate; therefore it is difficult to ascertain any acceleration, deceleration in the growth rates over time. To overcome this problem log-quadratic form is proved to be convenient. It can be written in the following form:
$\ln Y_t = a + bt + ct^2 + u_t$ ------------(3)
If estimated value of c assumes significantly (t-ratio is used as test statistics) positive value then we will be having accelerating growth rate and in case of significantly negative value of c will indicate deceleration (Boyce, *op.cit.* :262, Reddy, *op.cit.*, Srinivasan, 1979: 1283)
Now taking the functional form of log-quadratic equation ($\ln Y_t = a + bt + ct^2$)
The growth rate G (t) = $(1/Y_t)*(dY_t / Y_t)$or $Y_{t+1}-Y_t / Y_t$
= b + 2ct
To measure the acceleration or deceleration, change in growth rate is to be considered and it will be as follows (Reddy, *op. cit.*: 708):
dG(t) / dt = 2c
If b> 0 and c> 0, this implies that growth rate is increasing over time.
If b< 0 and c> 0, this implies that G(t) may be negative but growth curve is increasing at an increasing rate provided t> -b/2c
Now, if b> 0, c< 0, the conclusion is that dG(t) / dt is negative that is growth rates are falling.
Finally, b< 0 and c< 0, this implies retardation or deceleration of growth rates.
The incorporation time squared on the right hand side of (3), may give rise to problem of multicollinearity. This is avoided by the normalization of time in mean deviation form, that is, by setting t = 0 at the mid-point of the series and this allows the time (t) and its square (t^2) to become orthogonal (Boyce, *op. cit.*: 262, 278). As it is further pointed out by Boyce that the normalization of time affects only the estimate of b (coefficient of t), the estimate of c (coefficient of t^2) remains unaffected with respect to the normalization (*ibid*. 278).

3. SECTORAL GROWTH EXPERIENCES IN SIKKIM
Sector wise analysis of growth rates (Table 1) reveals that in primary sector, agriculture and allied activities, has shown impressive growth during 1981-82 to 1989-90, thereafter it was sluggish, but it is growing at a healthy rate during 2000-01 to 2008-09. Forestry and Logging, Fishing and mining and quarrying experienced a substantial fall in growth rates between 2000-01 and 2008-09.
In the secondary sector, construction activities are growing consistently over time. The manufacturing sector, which is supposed to be the backbone of the secondary sector, has achieved a mixed result. As a matter of fact, unregistered industries achieved very high growth rate between 1990-91 and 1999-2000 but could not sustain during 2000-01 to 2008-09. Growth of unregistered industries hinted towards an expansion of small scale and cottage industries in the decade of nineties. On the contrary, registered industries experienced a slow growth in nineties and upsurge in growth was observed during 2000-01 to 2008-09. The upsurge in growth of registered industries from 2000-01, may be attributed to the possible rise in investment, especially in the sector of tourism and hydel power generation.
Tertiary sector is growing at a satisfactory rate since eighties, however, major upsurge was observed during nineties and since 2000-01, it became little sluggish. Transport services, public administration[2] and other services[3] mostly propelled the growth of tertiary sector. The growth rate of transport, communication, real estate, legal and business services has slowed down considerably in the late-nineties. From 2000-01, trade, hotels and restaurant and Banking and Insurance sectors have shown an upsurge in the growth rate. Conversely, during the same time, the growth rate of public administration and other services has started to slow down and this indicates that rate of expansion of government services is gradually getting saturated, and private sector is slowly making inroads.

FIGURE-A: CHANGING SECTORAL CONTRIBUTION OF GSDP IN SIKKIM



Source: Calculated from GSDP figures at current prices, CSO, www.mospi.nic.in

TABLE-1: SECTOR WISE COMPOUND ANNUAL RATE OF GROWTH OF GSDP (AT CONSTANT PRICES) IN LAST THREE DECADES

Sl. No.	Industry	1980-81 to 1989-90	1990-91to 1999-2000	2000-2001 to 2008-09
1	**Agriculture**	10.03	6.97	11.92
2	Forestry & Logging	-7.41	45.77	0.36
3	Fishing	12.98	24.46	7.02
4	Mining & quarrying	12.63	19.58	5.68
a.	**Sub Total Primary**	**9.92**	**8.12**	**11.10**
5	Manufacturing	13.86	13.66	11.77
5.1	Registered	11.87	6.23	10.79
5.2	Unregistered	9.41	26.26	12.45
6	Construction	10.57	16.61	20.21
b.	**Sub Total Secondary**	**11.99**	**17.33**	**15.94**
7	Transport, storage & communication	25.03	16.02	18.90
8	Trade, hotels and restaurants	12.82	7.03	12.36
9	Banking & Insurance	16.75	12.10	22.57
10	Real estate, ownership of dwellings and business services	6.68	23.01	11.17
11	Public administration	9.61	25.63	14.07
12	other services	13.35	27.82	14.17
c.	**Sub Total of Tertiary**	**12.01**	**20.55**	**14.76**
13	**Gross state domestic product**	**11.10**	**16.11**	**14.34**
	Population	2.64	2.78	1.41
	per capita SDP/Income	**8.25**	**12.97**	**12.75**

Source: Calculated from GSDP figures at constant prices, CSO, www.mospi.nic.in

Note: For GSDP data from 1980-81 to 1989-90 the base year is 1980-81 while the for 1990-91 to 1999-2000, was adjusted by taking 1993-94 as base year and for 1999-2000 to 2008-09, 1999 has been taken as base year.

4. EXPONENTIAL GROWTH AND ACCELERATION AND DECELERATION OF GROWTH: SIKKIM VIS-À-VIS NORTH EASTERN STATES

An attempt has also been made to compare the growth experiences of Sikkim with rest of the North-Eastern states of India. The estimates of the growth rate parameter 'b' (in equation 1) for the economy of eight states considered in this study for the three time periods, 1980-1990, 1990-2000, and 2000 to 2009 (Table 2) reveal tremendous variation in the growth experience of the North-Eastern states in India. The growth rates for all the North-Eastern states are found to be significant at 1% level. It indicates significant structural changes in the state economies. It is clearly seen from the table that states like Arunachal Pradesh, Manipur, Meghalaya, Tripura, Mizoram and Sikkim (which are generally excluded from several regional studies in India) are the ones experiencing very wide fluctuations in their growth rates.

It has further been observed that Mizoram experienced the highest growth rate in the first decade, Meghalaya remained on the top position in nineties and Tripura achieved the highest growth in last decade. For all the states of North-East, growth rates have accelerated in nineties in comparison to eighties. However, Manipur, Nagaland, Mizoram and Sikkim experienced a fall in growth during 2000 to 2009. Rate of change in growth rates measured by the estimated coefficient of 't^2' (c in equation 3) was found to be negative for the state of Meghalaya and Sikkim (Table 3). This indicates that these two states are experiencing deceleration in long-term growth rates. However, Sikkim is the only states in North-East which is maintaining double-digit growth during eighties, nineties as well as in post-nineties. Unlike rest of the North-Eastern states, Sikkim is most peaceful and as a matter of fact, crime rate in Sikkim is almost at lowest among all the Indian states. This should have a positive impact to sustain growth of tourism as well as economy. One of the reasons for experiencing double digit growth by most of the North-Eastern states is the smallness of the size of GSDP in comparison to rest of the states in India.

TABLE 2: EXPONENTIAL GROWTH OF SDP AT CONSTANT PRICES AND SIGNIFICANCE OF GROWTH

States	Exponential Growth		
	1980-1990	1990-2000	2000-2009
Arunachal Pradesh	8.2 (28.53*)	15.7 (4.93*)	15.9 (7.28*)
Assam	3.5 (11.71*)	16.3 (3.54*)	16.3 (5.93*)
Manipur	5.1 (32.56*)	21.2 (5.30*)	15.8 (6.93*)
Nagaland	7.6 (14.6*)	27.8 (4.57*)	16.5 (10.9*)
Meghalaya	4.9 (14.1*)	25.6 (4.58*)	15.2 (8.31*)
Mizoram	20.8 (18.5*)	16.8 (13.64*)	9.8 (28.4*)
Tripura	5.4 (7.60*)	14.2 (3.81*)	18.3 (8.70*)
Sikkim	11.82 (21.19*)	17.9 (5.85*)	15.6 (7.61*)

Source: Calculated from GSDP figures at constant prices, CSO, www.mospi.nic.in

t stats are shown in parentheses.

* implies significant a 1%

TABLE 3: ACCELERATION OR DECELERATION OF GROWTH OF THE NORTH- STATES (1908-81 TO 2008-09)

States	Instability Coefficient (c)	Growth pattern
Arunachal Pradesh	0.002	Acceleration
Assam	0.004	Acceleration
Manipur	0.008	Acceleration
Nagaland	0.003	Acceleration
Meghalaya	-0.002	**Deceleration**
Mizoram	0.007	Acceleration
Tripura	0.005	Acceleration
Sikkim	-0.005	**Deceleration**

Source: Calculated from GSDP figures at constant prices, CSO, www.mospi.nic.in

5. STATUS TOURISM IN SIKKIM

After critically reviewing the growth scenario of Sikkim for period of 29 years, the moot point is that how far tourism is contributing towards the economic growth and development experienced by Sikkim over time. In addition, it is evident from above growth scenario that much of the growth in Sikkim has occurred where government is a major player. Therefore, slowed down in the growth of public administration, other services are hinting towards saturation in government jobs in Sikkim. The rapid decline in share of primary sector to GSDP implies a continuous fall in income for more than sixty percent of working population depending on agriculture and possible marginalisation of a segment of agrarian community (Chakrabarti, 2010). Given the imminent unemployment scenario, expansion of tourism of varied dimension can successfully overcome the unemployment scenario of the state.

5.1 FEW METHODOLOGICAL IMPEDIMENTS IN MEASURING THE OUTCOME OF TOURISM

Absence of a systematic framework for analysing the sector and inadequacy of data related to tourism are some common impediments for framing a proper tourism policy in India. While statistics related to international visitors have periodically been collected, data on domestic tourists have been generated in an *ad hoc* manner, and is mostly done by non-government agencies. Unlike the typical sectors defined in the System of National Accounts, the "tourism sector" comprises a mixture of many different traditional sectors, from transport, to accommodation, to food, and so on. Since tourism is primarily demand defined and driven, the "tourism sector" includes all goods and services demanded by visitors. Substantial advances in methodology have been made recently in the adoption in 2000 by the United Nations Statistical Commission of the framework of the Tourism Satellite Account (TSA) (NCAER, 2003). However, the use of it is extremely scanty and hardly any State governments in India are using it to provide systemic data on tourism. Sikkim is also no exception. Therefore, paucity of data acts as impediments to make a plausible argument in favour of tourism development in Sikkim and its contribution towards economic development of the State.

5.2 TOURISTS INFLOW IN SIKKIM

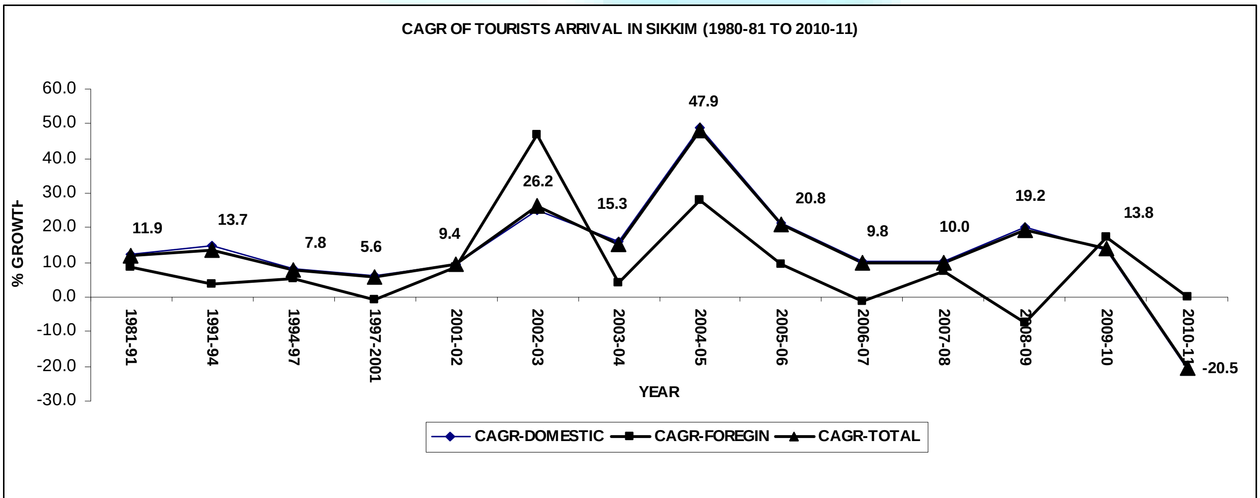
In terms of number of tourists (both domestic and foreign) it is continuously increasing since 1980-81. However, the foreign tourist as percentage of total tourists has declined over time. The period between 2001 and 2011 has observed highest percentage rise while the period between 1991 and 2001 has observed lowest rise (in percentage) in tourist-inflow in Sikkim (Table 4). During 1981 to 2011, the domestic tourist grew at compound annual rate of 11.87 percent, foreign tourist grew at an annual rate of 6.98 per cent and both domestic and foreign tourists grew at 11.50 percent. 2002-03 and 2004-05 registered highest rate of growth of inflow of foreign tourists and domestic tourists respectively. In fact, in 2004-05, taking domestic and foreign tourists together, Sikkim experienced highest rate of growth of tourist's arrival. Thereafter, slow down in growth was observed and in 2010-11 it became negative (Figure-B). Political uncertainty in Darjeeling hills is mostly responsible for this slow down. However, taking the average growth it can safely be said that since 2000-01, the tourist's arrival in Sikkim got momentum.

TABLE-4: INFLOW OF TOURISTS IN SIKKIM (1981 TO 2011)

Year	Domestic Tourist (No.)	Foreign Tourist (No.)	Total	Domestic as % to Total Tourists	Foreign as % Total Tourists	Total
1981	19115	2739	21854	87.5	12.5	100.0
1991	61360	6187	67547	90.8	9.2	100.0
2001	146923	7757	154680	95.0	5.0	100.0
2011	552453	20757	573210	96.4	3.6	100.0

Source: Sikkim Statistical Profile 2006-07 and 2011-12

FIGURE: B- ANNUAL GROWTH OF TOURISTS (DOMESTIC, FOREIGN AND TOTAL) IN SIKKIM (1981-2011)



Source: Own calculation by using data of tourist arrival over time (available at Sikkim Statistical Profile 2006-07 and 2011-12)

Tourism is a human resource based activity; its expansion will not only create employment, but also give a fillip to other sectors like transport, telecommunication and retail selling. Now if the variables like transport and communication, trade hotels and restaurant and banking and insurance are considered as proxy for the growth of tourism, then the contribution of these sectors to Gross State Domestic Product will partly explain the contribution of the tourism towards the revenue generation in the state over the periods. A close look at Table 5 reveals that average contribution of these three sectors account for 11.2 per cent of GSDP (from 1980-81 to 2009-10) and trade, hotels and restaurants has remained the highest contributor with and an average contribution of 5.6 percent. Transport and communication and banking and insurance in average are contributing 2.6 per cent and 2.3 per cent respectively. It is important to note that the collective contribution of transport and communication, trade hotels and restaurant and banking and insurance were found to be highest in 1990-91 and thereafter it started declining slowly. The paradox is that number of tourists in absolute sense has increased but income added is declining, this implies that average expenditure by a tourist has been declining. Decline in foreign tourist as percentage of total tourist arrival may also be reason for decline in collective share of transport and communication, trade hotels and restaurant and banking and insurance to GSDP.

5.3 ROLE OF GOVERNMENT OF SIKKIM IN PROMOTING TOURISM

To formulate a Tourism policy for the country as a whole India took 35 years after independence and the first ever Tourism Policy was announced by the Government of India in November 1982. The Government of India took another ten years to formulate the National Action Plan for Tourism which was announced in May 1992. The Planning Commission recognized tourism as an industry by June 1982. At the beginning of Eighth Plan (1992-97), 15 States and 3 Union Territories had declared tourism as an industry. Sikkim that became an Indian State only in 1975, has declared tourism as an industry in 10th Five Year plan (2002-2007). In addition, development of basic infrastructure, handloom & handicrafts, human resources etc. have been put on the priority list. Rangpo-Gangtok, Melli-Jorethang and Jorethang-Reshi were declared as industrial corridors whereby land would be acquired by the Government and leased out on a long term basis to the investors. The strategy in the 10th Five Year Plan for implementation of Centrally Sponsored Scheme is to identify the various tourism

projects like, TIC, Tourist Lodge, *yatri niwas*, public conveniences, wayside amenities, Trekking Trails, water sports activities, publicity brochure, adventure sports equipment, tourist circuits, to meet the requirement and need of the tourists. Existing attraction centres will be provided with upgraded facilities on phased manner over the Five-year period duly prioritizing the schemes requiring immediate upgradation based on the tourist flow to the destination.
In addition to that many feasibility studies and studies to prepare perspective plan were commissioned by the State of Sikkim. Tata Economic Consultancy Services had prepared the Tourism Master plan and Policy document for the period 1997-2011 for the State of Sikkim in 1997 where short term, medium and long term strategies were formulated for district wise tourism development in the State. In 2002, Horizon Industrial Consultancy Services had prepared a 20 Year Perspective Plan for the Sustainable Development in Sikkim under the aegis of Ministry of Tourism and Culture, Government of India.

TABLE-5: SECTOR WISE SHARE TO GSDP (AT CURRENT PRICES) IN SIKKIM (1980-81 TO 2009-10)

Sl. No.	Industry	1980-81	1990-91	2000-2001	2009-2010
1	Agriculture	45.3	40.0	19.1	9.8
2	Forestry & Logging	0.6	0.9	1.7	0.8
3	Fishing	0.0	0.1	0.1	0.0
4	Mining & quarrying	0.2	0.2	0.2	0.1
a.	**Primary**	**46.1**	**41.2**	**21.0**	**10.7**
5	Manufacturing	5.7	3.8	3.3	2.5
5.1	Registered	3.3	3.0	1.4	1.3
5.2	Unregistered	2.4	0.9	1.9	1.2
6	Construction	14.2	10.0	14.5	12.2
7	Electricity, gas and water supply	-0.5	0.1	6.4	21.1
b.	**Secondary**	**25.2**	**17.8**	**27.5**	**38.3**
8	Transport, storage & communication	1.1	3.5	2.7	3.0
8.1	Railways	0.0	0.0	0.0	0.0
8.2	Transport by other means	0.0	0.0	2.7	1.8
8.3	Storage	0.0	0.0	0.0	0.0
8.4	Communication	0.0	0.0	0.0	1.2
9	Trade, hotels and restaurants	5.6	8.3	5.2	3.3
10	Banking & Insurance	1.8	3.0	2.3	2.0
11	Real estate, ownership of dwellings and business services	5.8	4.8	7.6	7.3
12	Public administration	8.7	11.5	15.8	19.5
13	other services	5.7	9.8	15.1	13.0
c.	**Tertiary**	**28.7**	**41.0**	**51.5**	**51.0**
14	**Gross state domestic product**	100.0	100.0	100.0	100.0

Source: Calculated from GSDP data at current prices, State Domestic Product of Sikkim, Directorate of Economics and Statistics, Monitoring & Evaluation, Planning and Development Department, Govt. of Sikkim & http://www.mospi.nic.in

The same organisation was also entrusted to prepare Sikkim Tourism Vision 2022 and it set the following targets:

- To increase earnings from tourism at least at the rate of 10 per cent per annum.
- To achieve an annual rate of growth of 10 per cent in foreign tourist arrivals during the period 2002-2012 and 15 per cent during the subsequent period of the perspective plan.
- To create employment opportunities for 1500 persons per annum.
- To add 200-quality accommodation spread over in the four districts of the state except Gangtok.
- To innovate and promote al least one new tourism product (eco / adventure tourism) and new destination every year

Sikkim Tourism Development Corporation has also commissioned a Master Plan for Trekking in Sikkim.
Forest Department of Sikkim has initiated some projects like the Bird Park (including Walk-through Aviary) at Rabdentse, West Sikkim; Butterfly Park at Rangrang, North Sikkim; Himalayan Zoological Park (Including Night Safari / Nocturnal House) at Gangtok, East Sikkim. The Department has also introduced various bans such as grazing, cutting of trees, use of plastics, smoking etc. in the forest areas. It also has taken up awareness and capacity building programmes for the local communities who are settled at the vicinity of the National Park.
Of late many NGOs in Sikkim are also working to promote ecotourism and village tourism in various remote places in Sikkim and it is also partially helping rural people to take up tourism related activities as a better alternative to agriculture. This is in connivance with changing global tourism scenario which has undergone a major transformation over the past 30 years. As experts suggest that it was the "sea sand and the beach" that attracted tourists in the 1970s. However, by the 1980s the focus shifted to "cultural tourism", which involves visits to historical sites and cultural spots. Then the interest shifted to nature. Due to consistent efforts of environmentalists coupled with growing concern of various stakeholders in tourism development including NGOs, the emphasis is being gradually shifted to eco-tourism particularly because of its relevance and imperative need for protecting fragile character of the environment in its specific stations like mountains, hills, flora and fauna etc. This scenario is now more pronounced in the case of Sikkim.

5.4 CLASSIFICATION OF TOURISTS VISITING SIKKIM (DOMESTIC AND INTERNATIONAL) IN TERMS OF PLACE OF ORIGIN

An important feature of the tourism in Sikkim is mostly catered to by domestic tourists and bulk of the domestic tourists is from West Bengal and most of them are budget tourists. The survey conducted by the State Department of Tourism reveals that about 61 percent of these domestic tourists hail from West Bengal, 16 per cent from the Northern States and 11 per cent from the Western States. The average sojourn of domestic tourists varies from 1 to 3 days and only around 4 per cent stays more than a week. For the international tourists, 14 per cent comes from UK, 13 per cent from Germany, 10 per cent from France, 9 per cent from the USA, 5.5 per cent from Japan and rest from other countries. In terms of spread of tourism across the State, it has been observed that among the four districts, tourists spend maximum number of days in East district, especially in and around Gangtok, the capital of the State. In terms of average stay West district comes next to East District. The third and fourth places are respectively held by North and South District (Trekking Master Plan for Sikkim, 2000). Sightseeing and visits to snow covered areas have remained as the priorities for majority of domestic tourists. A very small section of the tourists venture in remote places of Sikkim and they are mostly trekkers and mountaineers. It has also been observed that the average stay of two to three days is much low in comparison to the average stay of six days in other Indian Hill stations (Chattopadhyay, et. al. : 2001).

6. PLAN EXPENDITURE IN SIKKIM ON TOURISM

Even though it is well understood that Government of Sikkim is trying its best to promote Sikkim as one of the best tourist destination at National and international level, however, the keenness in this regard needs to be verified. Figures of plan expenditure on tourism in Sikkim in different plan periods may well serve the purpose. In addition to that plan expenditure on road transportation and roads and bridges have also taken into consideration because expansion of tourism is positively correlated with the expansion of road transportation and roads and bridges. It is evident from Table 6 that plan expenditure on tourism as a percentage of the total plan outlay did not show any substantial increase since 1985. In contrast, plan allocation on roads and bridges has been receiving much higher emphasis and the amount is also quite substantial in absolute term. Again, plan allocation on road transport is not showing much improvement over the periods. This whole picture is rather contradictory in nature. The State which is so vigorously pursuing tourism should have had higher plan allocation especially in the sectors of tourism and road transport.

TABLE-6: SHARE OF SECTORAL AND SUB-SECTORAL PLAN ALLOCATION IN SIKKIM (1954-2007) (AS A PERCENTAGE OF TOTAL PLAN OUTLAY)

Plan /Sectors	Tourism	Roads & Bridges	Road Transport
I Plan (1954-61)	NA	42.8	5.2
II Plan (1961-66)	0.8	40.5	6.9
III Plan (1966-71)	0.4	43.4	4.1
IV Plan (1971-75)	4.4	36.3	3.5
V Plan (1974-79)	2	26.1	3.1
VI Plan (1980-85)	1.5	22.3	4.9
VII Plan (1985-90)	0.75	6.4	3.2
VIII Plan (1992-97)	0.97	14.8	1.85
IX Plan (1998-2002)	1.27	9.6	0.8
X Plan (2002-2007)	1.20	15.10	0.91

Source: Calculated from different plan documents, Govt. of Sikkim

7. CONCLUSION

In spite of being identified as one of the tourist hotspot among the national Hill stations, the share of Sikkim in the total foreign tourists is only marginal. Its share in total domestic tourists at 0.07 per cent of the total domestic tourists is also insignificant. The average stay is much less in comparison to other Indian Hill stations. Majority of the tourists are low budget domestic tourists and a small percentage of them are ready to go for trekking, river rafting, and village tourism. Groups coming for conference and seminars or for study and research purposes are really scant in number. Being a Buddhist trail and being the abode of some of the oldest monasteries, religious or spiritual tourism is yet to pick up. Expansion of tourism has still remained regionally imbalanced since majority of the tourists remain in and around East District or more precisely its capital, Gangtok. Different Government Departments such as Department of Tourism, Forest Environment and Wildlife Management Department, Rural Management and Development Department and NGOs have got engaged in tourism development and facilitation but in most of the cases they are working in isolation. A joint and collaborative approach is desired but unfortunately this in nonexistent. Tourism has not been addressed in a holistic manner and an integrated approach is required for which the key stakeholders need to come together under a common platform. Ecotourism is a much talked issue in Sikkim but to use it as a means for rural development is yet to materialize. Looking at the construction boom and pattern of construction in Gangtok and other urban joints have raised serious question of transforming Sikkim into an eco-friendly destination and to transform it to a greenest State of India. Strategies are to yet to be evolved to attract private investment in eco tourism and other tourism related projects. To bring the major hotel chains of international repute is yet to get a momentum.

Collection of statistics on tourist arrivals, tourist profiles, and expenditure pattern for each district periodically is still a distant reality. Connectivity with Siliguri and Bagdogra air port is always a matter of concern since the NH-31A, the road connects Sikkim with Siliguri is narrow and landslide prone and the State is yet to overcome the high degree of seasonal variation in tourists inflow. Sikkim is yet to create a brand of its own at national and international level. It is estimated that an investment of Rs. 10lakhs in tourism creates 47 direct jobs and 11 indirect jobs, which surpasses the employment potential from agriculture and industry. Therefore, in view of the vast and partially untapped tourism potential of Sikkim and in view of the saturation of government jobs as well as government sponsored economic growth, tourism is the most viable option for the State to make it a self sufficient economy.

NOTES

1. Like all the North-Eastern states, Sikkim is also treated as special category state and receives substantial financial and non-financial support from the Central Government. It currently gets 90 per cent of its plan assistance as grants and the remaining 10 per cent as loans which is 30:70 for non Special category states. Special Category States receive preferential treatment in the distribution of normal central assistance from state plans. From the total central assistance available for State plans, funds are earmarked for externally aided projects and special area programmes (hill areas, tribal sub-plans, border areas, North-East Council, etc.) (Chakraborty and Chakraborty, 2010). The policies of industrial licensing, concessional finance and investment subsidy, growth centres, as well as freight equalization of some major industrial input have also been used to promote economic development.The Gadgil formula does not apply in the determination of the distribution between non Special Category States and Special Category States. Had the Gadgil formula applied on Special Category States, they would have been in disadvantageous position since the formula assigns higher weights to population and deviation of per capita income from the national average.
2. The activities under public administration broadly cover the services of the state government administration. Thus it purely reflects the income generated for the government employees.
3. Again, other services covers activities pertaining to educational, medical and veterinary, research and scientific, sanitary, recreational, rest of the services, international and extra territorial bodies and lottery services. Therefore, bulk of the income generated under 'other services' are primarily coming from government and quasi-government employment.

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AN ANALYSIS OF DETERMINANTS THAT INFLUENCE THE GOLD PRICE MOVEMENTS IN INDIA

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ABSTRACT

The average price of gold in January 2004 was Rs. 5850 per 10 grams but in December 2013 it was Rs. 29000 per 10 grams. The price of gold increased nearly thousand times during study. Gold prices were on steep rise during the last decade and still rising. These prices have been thrilling human beings ever. Now days it is not only utilized as wealth but also as a liquid asset, 'an investment tool', too. Almost in everyone's investment portfolio hedging by the gold investment is very important as it also acts as backbone of economy. The monetary demand of gold has been on roll during last decade as well as non-monetary demand. Gold is used as a mode of transaction during international trade. It has also been observed that countries with large gold backing to their currency also have their currency internationally acceptable. In India what were the reasons that affect the price of Gold during this particular period of time. Present study is based on the gold price trends and introduces existing deliberations about what factors determine the gold price in India. And how factors like international business environment, political environment, market conditions, its induction in commodity market, buying behavior of consumers, and inflation have affected prices of gold during last decade. The paper specially focuses on rise in gold prices in India during the last years (between 2004 to 2013). According to empirical findings, highly positive correlation is found between gold prices and inflation rate of our country.

KEYWORDS

Correlation, Demand, Exchange price, Gold, Inflation, International Business, Trend Analysis.

INTRODUCTION

There is no need to explain the importance of gold in India. Everyone from the economist to common people having same interest in the Gold and the Price of Gold. Conventionally gold has been extremely deep-rooted in the Indian communal consciousness. From is discovery Gold has well thought-out one of the most valuable metals, and its value has been used as the standard for many currencies (known as the gold standard) in history. Gold has been used as a emblem for purity, value, royalty, and above all roles that come together these properties. Conventionally Gold having worldwide acceptance as exchange medium in international business transactions. Consumption of gold experience a sharp increase of rate during the mid 1990s. Liberalization of gold import policy, strong economic growth and favorable movements business in gold prices. Gold is now being used as an alternative for dollar since its collapse (Turk and Rubino, 2008). Monetary and Non-Monetary demand for gold is steeply rising. It has been demanded by individual buyer, institutional buyer as well as he Countries too. There has been drastic increase in the prices of gold since 2003. Conventionally people of India think that gold has been a safe and sound investment choice, but its role has changed with the time. Gold is now being traded and forecasted as a commodity (Greely & Currie, 2008). Gold has entered in to secular bull market, since than the prices are on rise. Gold unlike any other commodity has been continuously providing ample yield to its investors. In India Gold has been commonly used in ornaments, but it was long consideration as an investment option by associates prevarication financial risks. Krauth (2011) in his report has clearly mentioned that the demand for the gold will rise and will surpass $ 2500/oz in future. This will also impact the prices of gold in India too. It is believed that gold prices will steeply rise in coming period of time. The role of gold in investment has drawn more attention since this transformational economic crisis began to unfold in 2008 (Fei & Adibe, 2010).

Present study is highlights various factors that are influence the price increase of gold in India. The gold prices in India have shot up more than 900% in past decade, and keep on to rise. The results reported in this paper indicate how monetary and non monetary factors are contributing towards increase in gold prices and also how it would affect Indian economy.

The purpose of this paper is to examine the causes, resulting in increase in gold prices. This study also investigates the effects of international business environment, Indian Economic environment, political environment, market circumstances, its induction in commodity market, buying behavior of consumers, and inflation on gold prices with special reference to India (between 204-2013).

REVIEW OF LITERATURE

For the present research study, the researchers have consulted the literature in various national and international journals.

1. Krauth (2011) in his article has mentioned about some factors affecting prices of gold.
2. Ho, Wang & Liou (2010) also have stated that gold prices are affected by dollar index.
3. Aggarwal & Lucey (2005) have also discussed about crossing psychological price barriers of gold.
4. Feldstein (1978) has mentioned how gold prices are affected by inflation.
5. Greely & Currie (2005) in their paper have examined the causes for increase in demand for gold in last decade and how this contributed towards price rise of gold.
6. Butler. J (2012) in his book has stated how increasing gold prices will affect economies of countries and gave measures to cope up with this scenario.
7. Fan Fei (2010) explain in his paper about the another attempt to disentangle the price movement of gold after the Bretton-Woods system, the last international monetary regime based on gold. Author states that in recent years, the world witnessed an aggressive growth in gold price.
8. Prerena & Rituraj Baber in Paper state that gold prices are frequently rise during last decade. Author further state that from period 2002-2012 adopt trend analysis which provides us the relevant picture of Indian domestic gold prices with many factors like its inflation, production, demand and dollar price fluctuation.
9. The role of gold in investment has drawn more attention since this transformational economic crisis began to unfold in 2008. (Liao S. & Chen) here authors believe that commodity prices should have different degrees of influences to individual industries instead of the whole market.
10. Mishra and Mohan 2012 the paper depicts that domestic and international gold prices are closely interlinked. And then it examines the nature of changes in the factors affecting international gold prices during the last two decades. Short-run instability in international gold prices used to be common factors such as international commodity prices, US dollar exchange rate and equity prices. (Mishra et.al 2012) this paper is an attempt to analyze the causality relation that may run between domestic gold prices and stock market returns in India. The study by taking into consideration the domestic gold prices and

stock market returns based on BSE 100 index, investigates the Granger causality in the Vector Error Correction Model for the period January 1991 to December 2009. The analysis provided the evidence of feedback causality between the variables.

OBJECTIVE OF THE STUDY

The major objectives of the study are:-

1. To study the impact of increasing gold prices on Indian economy & its significance.
2. To study the factors contributing towards the increase in the gold prices in India.
3. To studies the correlation between Average Gold price and average inflation rate.

RESEARCH METHODOLOGY

This paper aims at investigating the factors for sharp increase in the prices of gold in India from period of 2004-2013. This study is mainly based on secondary data. The study analyses the yearly average gold prices which have been calculated by taking average of gold price of every month of every year.

At the onset, the Karl Pearson's correlation coefficient, between abovementioned time series has been calculated. All the statistical calculations have been performed with the help of IBM SPSS 20.0 version.

SIGNIFICANCE OF GOLD IN INDIA ECONOMY

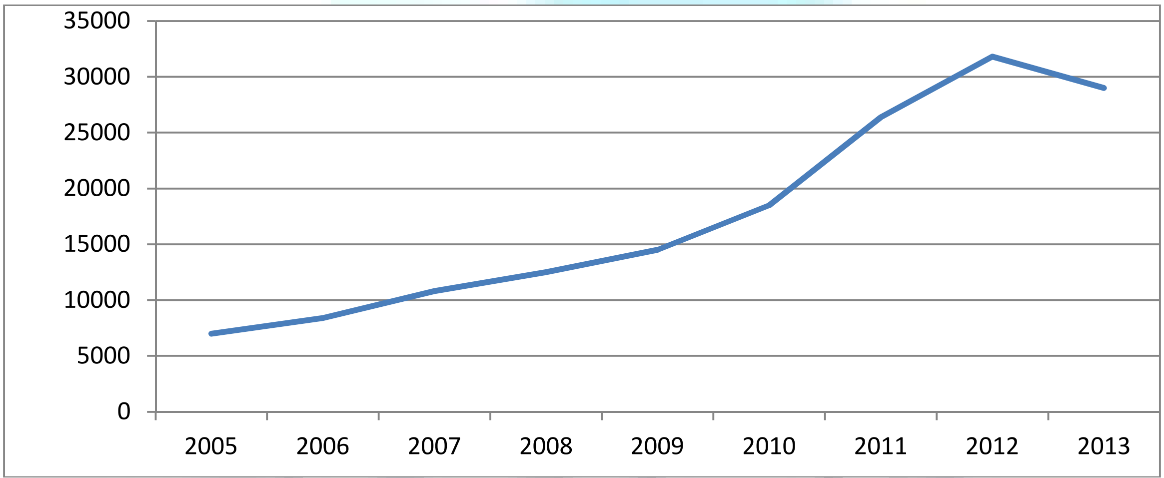
Indians are irresistibly attracted to gold - either to be bought as ornaments or investments. Their fascination with gold jewelry has roots in the culture, tradition and also the economic realities at the rural and grass root levels of the society.). As an investment, gold has been an easier bet to hedge against inflation and other risks. Indians have been buying and trading in gold since time immemorial, and continue to buy even now, at a time when it is more expensive than ever. A shining fact about gold is constituting the most desirable and precious metal used in exchange. But these days the meaning of gold totally changed in current paradigm gold is became a best mode of investment, which can say save mode of investment in the fluctuate market. The price of gold increases and notice many drastic changes which effects on the whole economy. The impact of the rise in international gold prices is reflected in its domestic prices as well. Despite the sharp recent price rise, in India, demand for gold has sustained, not only as a component of safe savings but also due to its social and cultural importance. (Mishra R and Mohan G 2012). The government and experts believe that high gold imports are fatal to the economy. If India reduces gold imports, it could solve the country's economic problems, erase the current account deficit, appreciate the rupee and boost growth. Experts say the country's balance of payment (BOP) is negative because of the gold imports. The role of a liberalized and developed gold market in the interest of consumers is being increasingly realized and efforts are underway for integrating the gold market with financial markets (Reddy, 1997, 2002, Thorat, 1997, Bhattacharya, 2002).

FACTORS INFLUENCING PRICES OF GOLD

The following table represents the ten year gold price per 10 grams:

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5850	7000	8400	10800	12500	14500	18500	26400	31790	29000

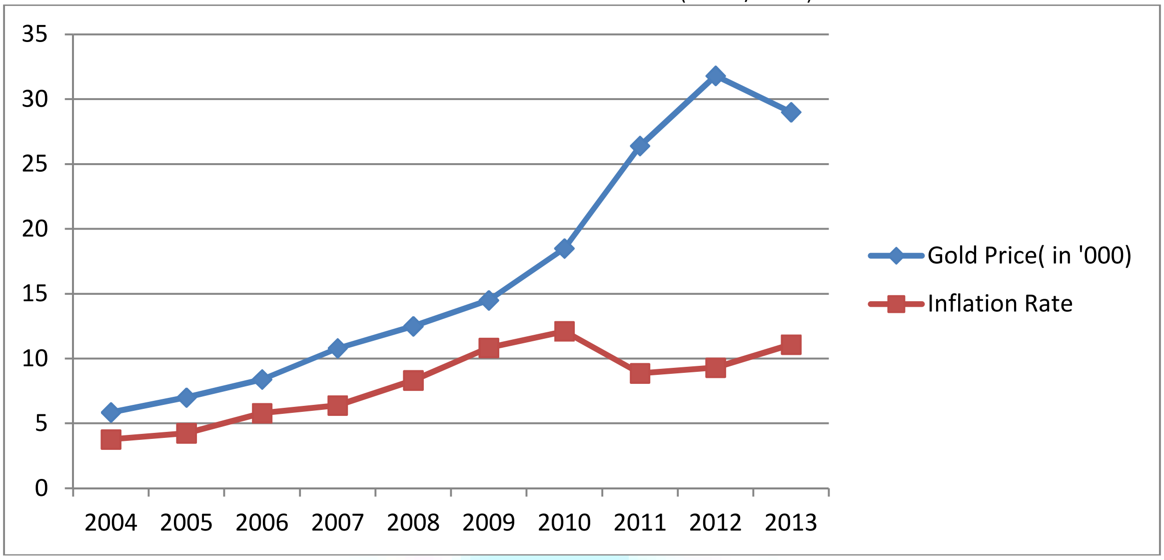
FIGURE 1: PRICES OF GOLD PER 10 GRAMS FROM 2004-2013



The data shows trend in the history of average price of gold per 10 grams over the given period of time. In 2004 the average price of gold is around Rs. 5850 per 10 grams and now it reaches to the average of Rs. 29000 in 2013 per 10 grams. It's huge rice in average price of gold. Investing in gold can most probable will not disappointing. Now we are going to study the factors that are contributing towards this rise. Now mentioned are the various factors which are contributing towards rise in the prices of the gold and performing trend analysis.

1. ***Inflation and Interest Rates***: Gold is also commonly believed to be a hedge against inflation. Researchers define inflation as the general rise in the price level (rather than an increase in the money supply) and use changes in the Consumer Price Index as the measure of monthly inflation. To be a hedge against inflation as the idea is most commonly understood, gold would not only have to be uncorrelated with inflation, it would have to be negatively correlated (Fei and Adibe 2010). So gold has always been considered as a good hedging instrument against inflation. As gold pegged to the US Dollar US interest rates affected gold prices. Whenever interest rates fall gold prices increase and when inflation is on the rise so the gold prices also increase. Gold's most natural relationship to the general price level is what one might expect for any good or asset: A higher general price level should be associated with higher gold prices ((Michael F. Bryan 1997). A closer relationship exists between gold prices and inflation, that is, the rate of change in the general price level (d Wayne Angell 1998). The most recent decrease in the inflation rate also corresponds to a drop in gold prices, although the relationship is much more synchronous, without a clear lead or lag time (Haubrich J 1998). In figure 3 clarifies the relationship by plotting the CPI inflation rate of ten year against the gold prices. By the help of a decade periods particularly stand out that higher gold prices also lead to the rate of inflation with reference to Indian country.

FIGURE 2: INFLATION RATE AND GOLD PRICES (in '000/ounce) **IN INDIA**



2. ***Currency Fluctuations***: Economists have long recognized the role of currency valuation in pricing commodities, particularly imported commodities, such as oil and gold. The material commodities however which possess these qualities in the highest degree are gold and silver. For these very grounds they've been chosen by common consent for use as money, to symbolize the value of other things: the world market for them is most highly organized (Marshall, 1920). There is a negative relationship between the value of the dollar and gold and suggests that as the dollar loses value the price of both commodities increases, as is consistent with recent experience in those markets (Kim and Dilts, 2011). Gold has inverse relationship with the dollar, recently in USA in great financial turmoil the dollar has weakened against many currencies, thus it is expected that there will be increase in the gold prices. Dollar is de-facto currency exchange all around the world. But now USA on financial depression gold has been substituted as a safe haven for investment.
3. ***Decrease in the supply of the gold***: the mining of the gold ore has been on the lower side from the past few years there is steep rise in the price of gold and whereas the quantity extracted has been volatile, rather on a lower side .There has been decrease in of nearly 40% in production of gold. Gold behaves less like a commodity than like long-lived assets such as stocks or bonds. That characteristic makes expectations particularly important because, like the stock market, gold prices are forward-looking, and today's price depends heavily on future demand and supply (Haubrich J. 1998). There also has been increase in monetary and non-monetary demand of gold thus pushing price of gold
4. ***Geo-Political concerns***: whenever there is a geo political trouble, investors around the world rush to prevent attrition to their investment and gold attracts one and all. For example: 9/11 attack in US lead increase in the demand of the gold.
5. ***Weakness in financial market:*** gold is negatively correlated with the stock, bonds and real- estate. During any of the financial and non financial crisis investors like to invest in gold. The movement of gold price is explained in terms of a set of macroeconomic and financial variables (Aggarwal and Soenen, 1988, Ghosh et al. 2002, Mani and Vuyyuri, 2003). In a specific country, the gold market may be both supply driven due to ample domestic production or demand driven due to huge import demand. In countries like India, which depend completely on gold import are price-takers, relying upon London fixes of gold prices, entailing for an exogenous impact of gold price on physical gold demand. The domestic gold price is determined by global gold price, exchange rate, transaction cost, import duties and some arbitrage component.
6. ***Demand from Central Bank***: with dollar losing its value, Reserve bank of India and central banks of most of the developed countries started to increase their share of gold in the storage to prevent excessive. From the time global financial crisis got off, there seems to be a perceptible boom in gold prices. There has been increase in the demand of gold from central banks all over the world and from Reserve bank of India (Karunagaran, 2011). This is confirmed by the gold investment digest (WGC, 2010) which reported that after two decades, a steady source of supply to the gold market, in 2010, central banks become 'net buyers of gold'. India had also officially purchased 200 tonnes of gold from IMF in October 2009, which placed its position ahead of Russia to ninth place (Bloomberg, 2009). This was mainly due to RBI's strategic move to diversify its FOREX and also to strengthen the currency (Karunagaran, 2011).

EMPIRICAL ANALYSIS

It is clear from figure 1 that the gold prices have increased between year 2004 and 2013 nearly thousand times. In figure 2 is observed that in respect with increase in the rate of inflation there has also been increase in the price of gold. The value of Pearson's correlation coefficient (r) between these over the period 2003 to 2014 is 0.786, To test whether this value of 'r' shows a significant relationship between the average price of gold and average inflation rate, it can be said that the correlation between gold prices and inflation rate is statistically highly positive.

CONCLUSION

This analytical paper studies the a mixture of factors causative towards the ad infinitum escalating prices of gold in India and how factors like intercontinental business environment, political environment, Economic environment of country, market conditions, behavior of consumers, and inflation have affected prices of gold during last 10 years. From period 2004-2013 adopt trend analysis which provides us the appropriate picture of average gold prices in India with many factors like its production, demand, financial market circumstances, geo-political concerns, etc. By the help of correlation this study shows that how gold price influenced with other factors and states a positive result. Based on empirical test results, reveal that there are positive correlations between gold prices and the inflation rate. From the point of view of advance research, there is a need to concentrate on the issue whether gold represent a prolific asset in India. Such a research will have far accomplishment connotation for policies relating to gold in context with domestic market.

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RISING FOOD PRICES AS THE BASE OF INFLATION IN INDIAN ECONOMY

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ABSTRACT
This paper examines two aspects of inflation; first relation of food inflation index with non-food inflation index, which also affects WPI Index. Food inflation emerges as the significant determinant of WPI –Index and Nonfood Inflation Index. Second part of the study focuses on the behaviour of CPI Index. Results of Auto-regression show short lead and lag structure of CPI-IW and CPI-RL. PFCED explains change in CPI index. In most cases, regional CPI indexes differ from All India Index. Dynamic behaviour of inflation index suggests the need for continuous policy intervention by government. Long run drift may drag economy away from equilibrium.

KEYWORDS
Equilibrium, dynamic, behaviour.

INTRODUCTION
When onion prices rose in the last month, it became a political issue. Rising prices of onion pushed the inflation to a six-month record as food became costlier. Onion damped the hope of rate cut by new reserve bank governor. Intermediate traders became active. Increasing price of onion increased the inflationary expectation of traders and hoarding, buffer stocking created shortage of supply of onion in the market. This itself highlights that food article prices are based on Flex price theory. (Prakash, Shri and Goel Veena1986), (Sharma Shalini, 2005). This further pushed the prices on the higher side. Animal products like milk, fish, processed food (sugar, edible oils), fruits vegetables (onion, tomato) currently are the main drivers of food inflation. Food being an essential item, demand for food is, by and large, price inelastic. Hence, food inflation forces households to spend more on the same quantity, which reduces their purchasing power for non-food items, provided that their income does not increase proportionately or more than proportionately. However, high income groups may not reduce nonfood expenditure, though their savings may be reduced. In case of low income groups, expenditure on protective foods may be reduced or households may go for cheaper alternatives, which also affects quality of life.(Sharma.Shalini. 2005).Increase in price of food items, increases the raw material cost of agro based industries ,which pushes the price level and it is known as cost push inflation. Food inflation led general price inflation leads to rise in wages. Which also accentuates cost push inflation? Infact, wages accounted for 44% of overall cost of production (S.Prakash, 1981).To mitigate effect of inflation, Government increases the money supply by increasing dearness allowance and spends lot of money on new yojnas for rural and unemployed people. This increase money supply without increase in aggregate output depreciates the value of currency and adds to inflationary spiral. Depreciation of currency increases the cost of production, mainly raw materials, which affects inflation of nonfood items also. This study treats CPIas the parameter of inflation in regional frame-work. It is important to study the behaviour of CPI-IW Price Index as it indicates the changing purchasing power of the people. Incidentally, impact of price rise differs between rural and urban areas, between metropolitan areas and cities and towns, and among the states. Following increase in inflation leads to demand for higher wages, which is again the main factor of increase in the cost of production. (Prakash, Shri1981). The study considers following indices CPI-IW represents retail index of Industrial workers. CPI-RL represents index of consumption of rural labour. CPI-AL is the index of agriculture labour. Increase in CPI is an indication of Inflation in the nation/region. Keynes believed that economy needs prodding if it set to move in right direction. This means active intervention of government in a nation/region to maintain the adequacy of demand.

Each of the above groups of retail indexes are the important factors of inter and intra- regional differences in inflationary pressures: (i) tax, trade and transport margins vary sharply between and within states; (ii) degree of competition differs, and (iii) supply-demand configurations are different; and (iv) degree of competition is different: numerous studies have been done to identify relationship between WPI (weighted Price Index) and CPI (Consumer Price Index). Some researchers argue that both cannot be compared as both have different universe and parameters of comparison which relate different commodities. WPI is the key indicator of consequence of some macroeconomic policies of a country. It guides the policies related to interest rates and money supply and affects the differential impact of monetary and political policies and their inflation effect on states' economies have not received attention. Analyse the behaviour of CPI-Index of different regions of the country. This paper examines variation in regional CPI-Index and all India CPI-Index.*This paper seeks to evaluate Mathur-Prakash hypothesis that food prices hold the key to inflation in Indian economy.*

Price final consumption expenditure deflator (PFCED) is a chain –type price index prepared by Bureau of Economic analysis. Both indexes differ as CPI is based on modified Laspeyres formula, while PFCED is prepared on Fisher –Ideal formula. Movement of the consumption pattern of a country can be analyzed through its deflator generated by the private final consumption expenditure at current prices over constant prices. Price change may cause consumers switch over from the buying of one to other good. But the fixed basket CPI does not account for altered spending habits caused by price change. As against this PFCED incorporates all the changes. This dynamic aspect of price- final consumption expenditure deflator makes it a determinant of CPI Index.

Laspeyres formula assumes that the base year quantity of consumption remains constant. That is $Lt=\sum i(P^{i}_{t}q^{i}_{ot})/\sum i(P^{i}_{o}q^{i}_{ot})$.Increase in index indicates the increase in the price level. It shows the increased expenditure on the base year quantities due to price rise. It is defined as inflation and vice versa is the case of deflation.

Fisher effect is an economic hypothesis stating that the real interest rate is equal to the nominal rate minus expected rate of inflation. R Nominal= R Real - R Inflation. Paasche price index is defined as $P_{t,\,t+1}=\sum(P^{i}_{t+1}\,q^{i}_{t+1})/\sum(P^{i}_{t}q^{i}_{t+1})$.Fisher-Ideal price index is simply the geometric mean of the Laspeyres and Paasche price relatives, that is, $F_{t,t+1}=(L_{t,t+1.}\,P_{t,t+1})^{1/2}$. A Fisher –ideal chain –type price index is obtained by multiplicity "chaining" the Fisher –Ideal price relatives, that is Chained F_{t+1}=(Chained F_t) ($F_{t,\,t+1}$). Fisher –ideal Index includes the impact of current price relative to base price, and also the impact of rate of current consumption relative to rate of base year consumption. Thus, CPI index is the function of PFCED.

RESEARCH QUESTIONS
1) Does food inflation explain the change in nonfood inflation index?
2) Does food inflation explain the change in WPI Index?
3) Is food inflation Granger cause of nonfood inflation /WPI Index?
4) Can expected change in inflation be captured by lagged CPI Index?
5) Do regional CPI Indexes differ from All India Index?

RELATIONSHIP BETWEEN GDP AND INFLATION
GDP represents the total value of the output of the economy. The relationship between inflation and economic output (GDP) plays very high growth of GDP is often related to increase in inflation. Growth in GDP generally causes inflation, and inflation may converge to hyperinflation if it is not checked. Once this process is in place, it can quickly become self-reinforcing feedback loop.This is because where inflation is increasing people will spend more money, because they know it will have lower value in future. This causes further increases in GDP in short term, bringing about further price increases.

THEORETICAL POSTULATION

Classical view of Inflation was quantity theory of money which revolves around Fisher Equation of Exchange that is MV=PT. MV/T=P, that is, greater the money supply relative to volume of trade/ quantity of goods and services, higher is the general price level. That is why inflation was popularly defined as too much money chasing too few goods. Where M is the amount of money in circulation, Vis the velocity of the circulation of that money, P is the average price level and T is the number of transaction taking place. This theory is based on the concept that increase in money supply leads to inflation.

KEYNESIAN VIEW OF INFLATION

Keynes commented on the above theory and rejected the assumption of V being constant in the above equation. He said increase in money supply will decrease the velocity of circulation of money. Alternatively, increase in money supply will increase the number of transactions that is T in the above equation. Economy can settle at any equilibrium level of price which is the function of aggregate demand and aggregate supply of output. If aggregate demand of output is low government may intervene with reflationary policies to boost it. Reflationary policies like increase in government expenditure, cutting taxation and interest rate and allowing some money supply growth. As aggregate demand grows level of output increases and as it approaches near to full employment inflation emerges and price level increases. This is demand pull inflation. Further as output increases, demand of labour increases ,which further increases the wage level and situation is cost pull inflation.

Liquidity preference theory states that three motives lead to demand for money that is (i) transaction motive (ii) precautionary motive and speculative motive. Demand for money is $Q=L_1+L_2$. Where L_1 is demand for money under transaction and precautionary motive. It is income determined and interest inelastic. L_2 is demand for money for speculative motive and is interest elastic and income determining/generating.

REVIEW OF LITERATURE

James P. Walsh and Jiangyan Yu (2012) found that food inflation affects income inequality differently from nonfood inflation. In a sample of China's province, they found that nonfood inflation exacerbates income inequality, whereas the role of food inflation is mixed. In a sample of India, they found that nonfood inflation add to income inequality in both urban and rural areas, whereas, food inflation has neutral to positive impact on income inequality in rural areas.

Prachi Mishra and Devesh Roy (2011) found that low inflation has been the rare occurrence in Indian economy in last two decade. Long term trend in food inflation has followed a pattern similar to overall inflation. Domestic and international food prices are moderately correlated.Their paper focuses on long term trend in inflation.

Shalini Sharma (2005) has analysedfood grain prices which confirm to Flex price behaviour. Traders stock holding behaviour is found as the main determinant of food grain prices.

Prakash,Shri and VeenaGoel(1986) investigated the price behavior of 136 manufacturing industries for a period of 20 years. In her Ph.D. thesis VeenaGoel found that the flex prices are governed by demand and revolve around stocking behavior of traders, who transmit the rising price phenomenon over to agro based industries . She has transformed the price theory from Aristotle onwards up to J.R Hicks 1976 in input output models.In both these investigations, the economy wide repercussions of rising flex prices in the form of inflation and its interrelation with interest rate, growth and employment have not been explored.

ShriPrakash (1981) found that the prices of manufactures are cost-based. Costs due to payment of interest on capital are found to exercise a non-significant and negligible influence over prices; wage costs are significant but much less important than the costs due to raw materials. But the results do not support the hypothesis that prices are adjusted to increases in costs only if there is a general price rise or only if the cost increase substantially.

In a seminal paper, (Mathur ,P.N and Prakash ,Shri 1981) developed an econometric model to determine the inter-relations between marketed surplus, prices of food-grains and their effect on inventory holding of food-grains. They applied the model to the data of Indian economy from 1951 to 1975-76 and showed that there exists overwhelming empirical evidence to support their thesis that (i) farmers sell less and consume more at higher prices of food-grains; and (ii) inventory holdings by public agencies and intermediate traders influence the market prices of food-grains; (iii) prices of food-grains follow the path of Flex Price markets; and (iv) food-grain prices are the main source of inflation in Indian economy. The demand pull in due course becomes cost push and encompasses the entire economy.

RESEARCH METHODOLOGY

SOURCE OF DATA

Data of Consumer Price Index numbers for industrial workers- all India and selected centers (Base:2001=100) for six months that is March-September 2011 is taken to analyze the difference between Indexes. Annual trend in price Indices of seven years from 2004- 2012, constant base price (2004-2005) taken from Economic Survey 2011-2012 (published annually by Department of Industrial Policy & Promotion, CSO and Labour Bureau).data of Wholesale Price Indexes of Food and Non-Food articles of 15 years taken from Economic Survey

METHODS AND MODELS

(a) GRANGER CAUSALITY TEST

Granger (1969) and Sim (1972) were the ones who first developed Granger Causality test to examine the application of causality in economics. It is a technique for determining whether one time series is significant in forecasting another. The standard Granger causality test seeks to determine whether past values of the variable helps to predict changes in another variable. Granger causality techniques measure the information given by on variable in explaining the latest value of another variable. In addition, it also says that variable Y is Granger caused by variable X ,if variable X assists in predicting the value of variable Y. If this is the case , it means that the lagged values of variable X are statistically significant in explaining variable Y. The null hypothesis (Ho) that we test in this case is that the X variable does not Granger cause variable Y and variable Y does not Granger cause variable X. In summary, one variable X_t is said to Granger cause another variable (Y_t) ,if lagged values of X_t can predict Y_t and vise-versa.

$Yt = \beta o + \sum_{K-1}^{M} \beta k\, Yt - k + \sum_{l-1}^{N} \alpha t Xt - l + \mu t$---------------------------------------(I)

$Xt = a_0 + \sum_{k-1}^{M} \Upsilon k Xt - 1 + \sum_{l-1}^{N} \delta t Yt - l + vt$--(II)

Where Y_t and X_t are variables to be tested andμt and Vt are mutually uncorrelated errors, and t denotes time period and k and l are number of lags.

Ho:$\alpha_t=\delta_t=0$ for all i (X does not Granger cause Yt)

Ha: $\alpha_t \neq 0$ and $\delta_t \neq 0$ (X Granger causes Y)

If the coefficient α_t is statistically significant, but δ_t not, then X causes Y. in reverse case , Y causes X. But if both δ_t andα_t are significant, then causality runs both ways.

(b) DISTRIBUTED LAG MODELS AND PARTIAL ADJUSTMENT SPECIFICATION MODEL

Auto-regression and distributed lag models are parts of dynamic econometric modeling. These models play pivotal role in economic analysis. Distributed lag models (DLM) are derivable as an extension of auto-regression model (ARM), though DLM represents an advance version of econometric modeling in current literature. This model is used to identify the impact of technical or institutional rigidities. This model is used in the study to identify the impact of lagged value of dependent on current value of dependent variable. Koyck's DLM with Partial Adjustment hypothesis is outlined hereunder:

Let Y_t* denote the desired value of the variable under consideration at time t; which is postulated to be the function of explanatory/pre-determined variable, X_t. This is represented by the following regression function of these two variables:

$Y_t^* = \beta_0 + \beta_1 X_t + U_t$…………………………………(1)

But due to ignorance, inertia and bottlenecks in the process of adjustment of actual to desired change in the value of the variable from preceding to current period, adjustment actually realized is only a fraction of desired adjustment. Since the desired level of Y_t is not directly observable ,Nerlove postulate of the following hypothesis, known as the partial adjustment hypothesis.

$(Y_t - Y_{t-1}) = \lambda(Y_t^* - Y_{t-1})$---(2)

Where λ, such that $0 < \lambda \leq 1$, is known as the coefficient of adjustment and where $(Y_t - Y_{t-1})$=actual change and $(Y_t^* - Y_{t-1})$= desired change.

Above function may also be written as follows:

$Y_t = \lambda Y_t^* + (1-\lambda)Y_{t-1}$................................(3)

Substitution of value of Y_t^* (1) in above equation (3) gives following relation:

$Y_t = \lambda\beta_0 + \lambda\beta_1 X_t + (1-\lambda)Y_{t-1} + \lambda U_t$(4)

Or

$Y_t = \Pi_0 + \Pi_1 X_t + \Pi_2 Y_{t-1} + \Pi_3$.................... (5)

Once we estimate short run function (5) and obtain the estimate of adjustment coefficient λ (from $\Pi_2$the coefficient of Y_{t-1}), we can easily derive the long run function by simply dividing $\lambda\beta_0$ and $\lambda\beta_1$ by λ and by omitting the lagged Y term.

(c) MEDIAN TEST

The test has been developed to evaluate the significance of the difference between the medians of two samples which may or may not have the same number of observations. The null hypothesis, Ho is that the population(s) from which the two samples/groups have been drawn have the same median: $M^1e=M^2e$, where Me is the Median and the superscripts 1 and 2 denote sample/population one and two respectively.

For applying the median test, first both the sampled scores/values are combined together to determine the median of the joint groups. Then the individual scores of each sample are rearranged according to as an individual score/value is higher or lower than the median of the combined samples. For each group, the frequency/tallies of scores above or below median is determined. These tallies are presented in 2*2 contingency table. If both the samples have been drawn from the population(s), having the same median value, the expectation of greater than median scores and less than median scores for each sample shall be the same.χ2 test with correction for continuity may be used.

$\chi^2=(n1+n2)\{|AD-BC|-n1+n2/2\}^2/(A+B)(C+D)(A+C)(B+D)$------------------------------(6)

Fishers probability test shall, however, be valid for all samples of size of less than 20, that is if n1+n2<20, which is true in the given sample.

$P=(A+B)!(C+D)!(A+C)!(B+D)!/\surd(n1+n2)!A!B!C!D!$-------------------------------------(7)

EMPIRICAL ANALYSIS

Result of Regression Model

Regression is applied on two sets of data that is last week of the year index and average of week index with base year (1993-94=100)

Regression of Nonfood Article Index with total Food Article index has 1993-94 as the base year

$NFAI=\alpha_0+\alpha_1FAI+U$ (Last Week)

TABLE 1

Intercept	(t)	α_1	(t)	R^2	F
13.306	0.669	0.891	7.887	0.827	62.212

Model fits the data well. Model explains 82.7% change in nonfood articles index. Coefficient of food article index is also significant. (i) One unit change in food article index will bring about 0.89 unit change in nonfood article; (ii) inflation in food article inflates nonfood articles also. Interestingly the intercept of the function is not significant .It means that fixed influences of excluded variables do not exercise significant influence on nonfood inflation. The significant influence of food inflation on non-food inflation also encompasses the inflationary expectation of independent intermediate traders, including organized retailers. Organized retailers have entered the whole sale agriculture markets in a big way. They corner much greater proportion of marketed surplus than the unorganized small traders of food grains. In recent times, the organized retailers are the main arbiters of food grain prices.

Regression of total WPI index with total Food Article index

$WPI=\alpha_0+\alpha_1FAI+U$

TABLE 2

Intercept	(t)	α_1	(t)	R^2	F
-16.68	-1.519	1.10	17.629	0.959	310.79

Regression function fits the data well.95.9% Proportion of total change in total WPI Index, is explained by the function. Coefficient of Food Article Index is significant and a unit change in food articles index bring 1.10 time change in total index. Thus, WPI shows greater sensitivity to change in food grain prices than the index of non-food article prices index. But, intercept of the function is not significant. It means that fixed excluded variables do not exercise significant influence on inflation. The notable observation is that impact of excluded variables is negative on WPI.

Regression of Nonfood Article Index with total Food Article index of average of week base year (1993-94=100) are examined now.

$NFAI=\alpha_0+\alpha_1FAI+U$ (Average of Week)

TABLE 3

Intercept	(t)	α_1	(t)	R^2	F
19.272	1.294	0.843	9.99	0.884	99.99

Model fits the data well. Model explains 88.4% change in nonfood article index. (i) R^2 has improved in this case in comparison of index to last week index.(ii) t value of slope the difference of the two slope coefficient of food Inflation Index is 0.48 , which is not significant. Thus, the two coefficients are statistically equal. It does not matter price of which week is taken into account. It indicates the persistence of similar inflationary pressure over the weeks.

Regression of total WPI index with total Food Article index

TABLE 4

Intercept	(t)	α_1	(t)	R^2	F
-5.176	-0.885	1.023	30.897	0.986	954.63

Regression function fits the data well. There is improvement in R^2 in comparison to inflation index based on last week. t value of slope of coefficients of food Inflation Index is 1.67 , which is not significant. Interestingly, impact of excluded variable is negative on WPI. May be excluded factors pull WPI back towards equilibrium. This result validates Mathur-Prakash hypothesis that food inflation is the main source of inflation in Indian economy.

Result of Granger Causality Test

$$TFI = \beta o + \sum_{K-1}^{M} \beta k\, TFIt - 1 + \sum_{l-1}^{N} \alpha tNFIt - 1 + \mu t$$

TABLE 5

Intercept	βk	(t)	αt	(t)	R^2	F
17.111	0.980	7.522	-0.037	-0.266	0.958	128.63

$$NFIt = a_0 + \sum_{k-1}^{M} \Upsilon kNFIt - 1 + \sum_{l-1}^{N} \delta tTFIt - 1 + vt$$

TABLE 6

Intercept	ϒt	(t)	δt	(t)	R^2	F
-5.258	0.415	1.830	0.632	2.991	0.906	53.470

Above results indicate that coefficient α_t is not significant but coefficient δ_t is significant which indicates that non- food inflation is affected by food inflation. Food inflation is a Granger cause of Non-food inflation. This finding further strengthens our hypothesis.

$$TFIt = \beta o + \sum_{K-1}^{M} \beta k\, TFIt - 1 + \sum_{l-1}^{N} \alpha t WPIt - 1 + \mu t$$

TABLE 7

Intercept	βk	(t)	αt	(t)	R^2	F
16.240	0.955	2.482	-0.005	-0.013	0.958	127.77

$$WPIt = \beta o + \sum_{K-1}^{M} \beta k WPIt - 1 + \sum_{l-1}^{N} \alpha t TFIt - 1 + \mu t$$

TABLE 8

Intercept	βk	(t)	αt	(t)	R^2	F
-6.778	1.031	3.114	0.062	0.183	0.976	227.78

In the above results, α_t and δ_t both are not significant, indicating that neither food inflation is Granger cause of WPI and vice versa. This result supports above regression result where excluded factors create negative impact on WPI. These factors reduce the influence of Food Inflation.

CPI-IW is further regressed on PFCED and the results are as follows:

CPI-IW=α_1+α_2PFCED+U_t

TABLE 9

Intercept	(t)	α_2	(t)	R^2	F
-42.079	-5.54	1.409	27.214	0.991	740.630

Model fits the data well. It explains 99% of total change in CPI-IW. Coefficient of PFCED is highly significant; indicating unit change in PFCED will bring about 1.40 times change in CPI-IW. The coefficient of intercept is significant and negative, this means that fixed factors excluded variables exercise significant influence on CPI-IW.

CPI-RL= α_1+α_2PFCED+U_t

TABLE 10

Intercept	α_2	(t)	R^2	F
0.990	1.537	24.624	0.990	606.387

Model fits the data well. Price expenditure deflator explains significant proportion of change in CPI-RL.

As GDP represents total output of the economy and excess of output also leads towards inflation. This relationship is examined by following model.

Ln CPI (%change in Price)= α_1+α_2LnGDP+U_t

TABLE 11

Intercept	α_2	(t)	R^2	F
1.228	-0.245	-0.235	0.013	0.055

As expected above model does not fit the data well. It may be due to following reasons (i) percentage change in GDP is directly related to percentage change in investment, which further reduces liquidity in the market;(ii) increase in inflation actually leads towards increase in GDP in short run.

Auto-Regression of CPI-IW

CPI-IW=α_0+α_1CPI-IW $_{(t-1)}$+ α_2 CPI-IW $_{(t-2)}$

TABLE 12

Intercept	(t)	α_1	(t)	α_2	(t)	R^2	F
-8.01	-1.075	1.147	19.36*			0.98	375.17
15.587	0.799	2.005	2.51	-1.127	-1.12	0.98	139.39

Auto-Regression function with lagged CPI-IW explains CPI-IW satisfactorily. (i) Coefficient of first lag is significant, this shows that change in previous years CPI-IW will bring proportionate change in CPI-IW; (ii) coefficient of second lag of CPI-IW is not significant. This shows that CPI-IW has short lead and lag structure. This also highlights the fact that inflation is cumulative but once the initial and subsequent periods inflation get cumulated , these become the base for cumulation of next period's inflation.

Auto-Regression of CPI-RL

TABLE 13

Intercept	(t)	α_1	(t)	α_2	(t)	R^2	F
-6.516	-0.796	1.139	17.82			0.984	317.65
10.447	0.710	1.652	2.806	-0.696	-0.947	0.988	126.968

Auto-Regression function with lagged CPI-RL explains CPI-RL satisfactorily. (i) Coefficient of first lag is significant, this shows that change in previous years CPI-RL will bring proportionate change in CPI-RL; (ii) coefficient of second lag of CPI-RL is not significant. This shows that CPI-RL also has short lead and lag structure.

Result of Granger Causality Test

$$CPI - IWt = \beta o + \sum_{K-1}^{M} \beta k\, CPI - IWt - k + \sum_{l-1}^{N} \alpha t PFCEDt - l + \mu t$$

TABLE 14

Intercept	βk	(t)	αt	(t)	R^2	F
-49.95	0.332	0.575	1.210	1.414	0.991	226.10

$$PFCEDt = a_0 + \sum_{k-1}^{M} \Upsilon k PFCEDt - 1 + \sum_{l-1}^{N} \delta t CPI - IWt - l + vt$$

TABLE 15

Intercept	Υt	(t)	δt	(t)	R^2	F
-6.24	0.920	3.090	0.187	0.934	0.997	926.43

In the above α_t and δ_t both are not significant. This indicates that neither PFCED is the Granger Cause of CPI-IW nor CPI-IW is the Granger Cause of the PFCED. Since we have a pair of regressions for any given series of X and Y and tangent of the angle made by the point of intersection of these regression defines correlation coefficient between X and Y, X and Y are specified as independent alternatively in the above specification a correction is needed in order to identify PFCED as dependent on CPI. This further justifies that inclusion of lagged PFCED values in regression of CPI-IW will not improve the results. This further strengthens the results of auto regression where past values of CPI-IW explain the change in current CPI-IW. CPI-IW is independent from the impact of lagged PFCED. This result leads us to apply Distributed Lag Model to explain the change in CPI-IW.

RESULT OF DISTRIBUTED LAG MODEL

CPI-IW= $\alpha_1+\alpha_2$PFCED+ α_3 CPI-IW$_{t-1}$+ U_t

TABLE 16

Intercept	α_2	(t)	α_3	(t)	R^2	F
-34.913	1.053	1.312	0.300	0.463	0.990	215.603

CPI-RL= $\alpha_1+\alpha_2$PFCED+ α_3 CPI-RL$_{t-1}$+ U_t

TABLE 17

Intercept	α_2	(t)	α_3	(t)	R^2	F
-43.782	0.853	1.309	0.323	0.517	0.989	182.387

Following inferences can be drawn from the above Regression (i) Regression function with lagged CPI-IW and PFCED explains the change in CPI-IW;(ii) Neither coefficient of PFCED is significant ,nor the coefficient of lagged CPI-IW is significant. Inclusion of PFCED in the model absorbed the influence of lagged CPI-IW, it may be due to multicollinearity; (iii) Value of λ=1-.30=.70 , this indicates quick revision of CPI-IW, that is within a span of 2-3 years. These quick adaptions of expectation are repercussions of reflationary policies of the government to control inflation. As explained by Keynes government increases aggregate output to fulfill the gap demand. These increases in production also boost up the demand for wages leading to cost inflation. This further guides the policy makers to bring dynamic economic policies to maintain balance. Continuous intervention of government is required to achieve equilibrium state of the economy in a dynamic state of inflation.

Same results are obtained when regression is applied to explain change in CPI-RL. This strengthens the theory that we are sustaining in dynamic state of the market where change in aggregate output or money supply will change equilibrium level of less than full employment.

REGIONAL DIVERSITY

Results of regression of CPI-IW of different states with time:

CPI-IW = $\alpha_1+\alpha_2$T

TABLE 18

States	Intercept	α_2	R^2	F
Ahemdabad	173.14	2.78	0.92	59.88
(t)	107.54	7.73		
Alwaye	177.14	1.85	0.96	153.60
(t)	264.36	12.39		
All India	181.85	2.07	0.96	127.42
(t)	221.60	11.28		
Asansol	200.57	2.32	0.96	126.49
(t)	217.28	11.24		
Banglore	187.14	1.32	0.95	86.64
(t)	294.77	9.31		
Bhopal	192.85	2.57	0.86	31.15
(t)	93.60	5.58		

The above table reflects the differential impact of inflation on different states where a city is taken as the index of inflation in the state as a whole.

Following conclusions flow from above results (1) regression function with time explains monthly CPI-IW of different states satisfactorily; (2) coefficient attached to time is statistically significant in all functions;(3) it validates the concept of time value of money that is with change in time, value of money depletes and reduces the purchasing power of money, which is also known as inflation and Gujarat, West Bengal and Madhya Pradesh bear greater inflationary burden than India.

RESULTS OF MEDIAN TEST

H0: there is no difference in proportion of CPI Index of state and All India

TABLE 19

Name of state	p one tail test	p two tail test
Ahemdabad - All India	0.296*	0.592*
Asansole -All India	0.00029	0.00058
Banglore - All India	0.296*	0.592*
Alwaye - All India	0.296*	0.592*
Bhopal - All India	0.0163	0.0362

In the above table the p value of Asansole and All India and Bhopal and All India are less than 0.05, therefore, in this case there would be a statistically significant association between the CPI index of states and all India CPI Index. Whereas , p value of Ahemdabad -All India,Banglore - All India and Alwaye –All India are greater than 0.05, therefore, in this case there is a significant difference between both CPI Index. Following inferences may be drawn (i) out of 5 cases CPI Index of three states significantly differ from All India CPI-Index; (ii) this indicates that inflation vary from state to state, hence policy makers should be careful while designing policies for center as well as state; (iii) the variation may be due to variation in consumption of products and purchasing power of people in different states.

RESULT OF t TEST

Another method of evaluating difference between two samples that is All India CPI and states CPI t value of slope of Coefficient t= $\alpha_1$of AICPI-α_1 RCPI/average of SE, AICPI is All India CPI and RCPI is regional Consumer price Index. Average of SE that is standard error of time coefficient both state and India.

TABLE 20

Name of state	(t) value
Ahemdabad - All India	-2.62*
Asansole -All India	-1.28
Banglore - All India	4.61*
Alwaye - All India	1.28
Bhopal - All India	-1.55

Above table t values indicate difference between the slope coefficient of Time is significant in two cases that is Ahemdabad- All India and Banglore-All India as t is greater than 1.96 . It can be inferred as follows (i) Regional CPI Index differ from All India Index which shows that central government policies may not be effective in these states; (ii) variation is due to change in consumption pattern of different states. In three cases that is Asansole-All India ,Alwaye- All India and Bhopal-All India t is not significant. This indicates All India CPI Index is mainly affected by small cities CPI Index.

MAIN FINDINGS

a) Food Inflation explains the change in Non-food inflation and overall WPI Index.

b) Food Inflation is the granger cause of Non-food inflation, whereas it is not a Granger cause of WPI.
c) Neither Non-food inflation nor WPI Index is the Granger cause of food inflation.
d) CPI-IW Index represents short lead and lag structure. Auto-regression Results showing significant results.
e) Quick revision of expectation of labours due to increase in output and inflation adds on cost inflation.
f) In most cases regional CPI-IW index differ from All India CPI-IW Index, indicating need of different policies for different regions. Central economic policies may fail at regional level.

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ADULT EDUCATION: A KEY ELEMENT FOR THE TRIBAL WOMEN'S EMPOWERMENT

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ABSTRACT

The programs of adult education are important for growth and development of any nation, particularly for developing countries like India. It is considered to be the timely intervention, to tackle present day socio, economic problems that arise. The government of India has taken many steps in this direction of strengthening participation of tribal groups in the nation's development. Adult education programs were implemented effectively and yielded desired outcomes. The present qualitative descriptive study elucidates the effectiveness and impact of these programs, which has brought on changes in the life styles of tribal women and how far it contributed to enhancement of human development. It found that there is a positive impact, but impact varies from one variable to another like age, regularity of participation, marital status etc, on social, cultural, health and family planning, economic, and participation in developmental activities. The study suggests that adult education centres need to be strengthened for further positive changes in lifestyle, in order to ultimately lead to enhancement of Human Development Index. The main objective of this paper is to elucidate the importance of tribal women's participation in the main stream of national development, who were excluded till recently. It explores how far the program is useful to tribal women, to investigate perceptions of educators, village elders and community leaders about changes that occurred, to investigate what are the major changes that occurred among tribal women after being educated, whether adult education programs are having any impact on their social awareness, cultural understanding/concerns, health, economic independence, and participation in developmental activities and aspects of tribal women, to study impact levels between different age groups of tribal women.

KEYWORDS
adult education, tribal women empowerment.

INTRODUCTION

Daniel Learner (1962, p.55)[1] believed that education is an important agent for bringing about modernization to a particular society. He further said that modernization is essentially an educational process, which opens the doors to modernization. Education provides one of the most important channels of transition from traditional to modern society. Literacy is, therefore, both the index and agent to modernization. Education transmits the culture of one generation to another. The rising generation has not only to be conveyed the activities and experiences of the past generation and asked to make necessary changes in those activities and experiences to meet the new situations as which it will match. An integration of the old must take place with the new ones. The communities like in the present, on the past and for the future. This means, activities and experiences in the present have to be built on the past and the present will guide the activities of the future. Education is a continuous reorganization and integration of activities and experiences.

According to Moore (1968. p.164)[2] social change is consequence and manifestation of such structures embodied in names, values, cultural products and symbol. In this point of view, any alteration to be socially significant, has to be accepted by the majority of the people and has to be assimilated or integrated in the society. Society exists only as a time sequence. According to the Education Commission[3] of 1964-66, a major objective of education is to help bring about social change. It maintains that if this change on a grand scale is to be achieved without violent revolution there is one and only one instrument that can be used is 'Education'. Literacy and education play an important role in the development of the individual and society. Education has become basic need today. Knowledge liberates us from ignorance. Education enables people to think critically, rationally, and scientifically. Illiteracy is the source of individual helplessness in several contexts. Selfish and clever people take advantage of others illiteracy. Illiterates become easy prey for moneylenders and other people. Education plays an important role in social and economic development of a country. It is the basic requirement for every individual, because education leads to his balanced and all-round development. It not only equips an individual but also instills in him/her values of humanism, democracy, socialism and national integration.

With the successful implementation of adult education programs in several districts in India, the situation is fast emerging whereby thousands of non-literates are acquiring literary skills and joining the class of neo-literates year after year. Similarly the literacy campaigns have resulted in a positive change in attitude among the learners and have enabled them to play a crucial role for their own development and for the development of the country. There are also tremendous changes in science and technology as well as in social practices across India. Education is a forceful instrument to change the values and attitudes of the people and to create in them the urge of the necessary motivation to achieve class ascendancy and social mobility. It can cut down the thick roots of traditions, superstitions, ignorance, backwardness, etc. It can help people in knowing their weakness or gaps of knowledge. The goal of adult education is to establish a non-violent and non-exploitative social and economic order. Education and human resource development will play a key role in the 21st century[4]. Adult education is an indispensable component of the strategy of human resource development and goal of creating a learning society. Achievement of basic literacy is not an end in itself. It is the entry point to the world of information technology. In any society, there is direct relationship or link between education and human development. Very fact is that when Human Development Index of any country is calculated education and literacy levels of that particular country play a crucial role in estimating Human Development Index (HDI). After all, the aim of education, whether it is formal, informal or non-formal, is to modify human behavior. This modification of human behavior can be achieved by providing adequate information, knowledge, attitude, and skills, which a particular society requires. Education is an important agent for bringing about modernization to a particular society. Literacy is, therefore, both indicator and agent of modernization. Education transmits culture from one generation to another, and adult education enhances transmission[5].

Social change is a consequence and manifestation of such structures embodied in names, values, cultural products and symbols. In this point of view, any alteration to be socially significant, has to be accepted by majority of people and has to be assimilated or integrated into society. According to the Education Commission (India) of 1964-66, a major objective of education is to help bring about social change. It maintains that if this change on a grand scale is to be achieved without violent revolution there is one and only one instrument that can be used and that is 'Education'. Literacy and education play an important role in development of individual and society. Education has become a basic need today. Knowledge liberates us from ignorance. Education enables people to think critically, rationally, and scientifically. Illiteracy is source of individual helplessness in several contexts. Selfish and clever people take advantage of others illiteracy. Illiterates become easy prey for moneylenders and other people.

Education also plays an important role in social and economic development of a country. It is basic requirement for every individual, because education leads to his/her balanced and all-round development. However, it not only equips an individual but also instills in him values of humanism, democracy, socialism and national integration. But in India, progress in literacy rate is not very much encouraging, mainly due to an unabated population growth and massive dropouts in first four years of elementary schooling? And many literacy programs, but unfortunately these programs did not have the expected impact because of lack of motivation and high rate of dropouts from literacy classes. Latest literacy program, known as Total Literacy Campaign (TLC), was launched with an entirely new approach in, 1989 to achieve objectives of National Literacy Mission (NLM)[6].

According to 2001 Census, Tribal groups constitute 9.58% of total population in country[7]. They are the earliest inhabitants of India, they have a distinct culture due to various historical and other reasons. Since forests have been major abode of tribal people they have developed emotive attachment towards forests. It is because of relative physical isolation from the mainstream for generations that they have nurtured their own way of life depending on their ecology. Tribal communities are differentiated from non-tribals as their social affairs are to a large extent guided by mutual obligations and moral bindings. Their institutions and traditions are based on cooperation and are community oriented. Physical isolation of tribals from non-tribal societies to some extent has also resulted in high incidence of illiteracy, ignorance and poverty among them. Over a period of time, some changes come into being in life styles of tribals. There are 38 tribal communities existing in Andhra Pradesh[8]. There is need to pay specific attention to their needs and lifestyles so that these tribal communities may be brought into the development process of the nation. Five-Year plans have given some importance to this. Development plans for tribals is to serve as an instrument to improve not only quality of their life but also to bring them into national mainstream. To bring this positive and progressive change, the Government of India has taken various steps and among those initiatives adult education is one. It is argued that women are best agents for social change and development.

ADULT EDUCATION FOR TRIBAL WOMEN'S EMPOWERMENT

Women constitute an important part of human resources of a country. For a developing country like India the contribution of women is as indispensable as that of men. It is widely recognized that the success of national development very much depends upon the active and useful participation of women in all developmental programs. Nearly, half of India's population comprises women (933 females per 1000 males)[9]. Because of inadequate expansion of education among women particularly in the tribal communities, they feel themselves unable to shoulder their responsibilities in different walks of life. In general the position of women in our country is not a happy one as most of them are illiterate, and are ignorant of political, legal, social, and economic issues. We in India have accelerated the pace of education's expansion after independence, but due to rapid increase in population and for several other reasons – social, economic and political, we have not been able to extend the fruits of education to the entire population of the country. Hence the huge number of illiterates, among whom the number of women is much higher than men. For full development of human resources, for improvement of our homes and for moulding character of children during most impressionable years of infancy, education of women is of greater importance than that of men. Keeping in view these points, Government of India has decided to impart education to women on priority basis, so as to equip them in performing their duties and for shouldering heavy responsibilities at home as well as outside. Eradication of illiteracy has been one of the major concerns of the Government of India since Independence. Need for a literate population and universal education for all children in age group of 6-14 years was recognized as a crucial input for nation building and was given consideration in constitution as well as in successive five year plans. A number of significant programs like, Social Education, *Gramashikshan Mohim*, Farmer's Functional Literacy Project, Non-Formal Education, Functional Literacy for Adult Women, and Rural Functional Literacy Project have been taken up to eradicate illiteracy among adults.

The women are an integrating force in society and are pivot around whom family life revolves. A literate woman can make family and society more cultured. In fact social development in any country depends on awakening and co-operation of women who form half and sometimes more than half of population of the country. When women are backward society is backward, when they are static society is also static[10].

The Census Report of India (2001) has designated that 1991-2001 as "Decade of Literacy" mainly due to significant increase in literacy rates as compared to pervious decades. Literacy rate rose from 52.61 to 64.84 per cent during the period, making for the first time since independence. A remarkable decline in number of illiterates by 31.9 million and an increase in number of literate by 207.44 million, which reflected an overall increase of 12.63%, the fastest decadal growth ever, this was the highest rate since independence. There was a significant increase in 14.87 per cent in female literacy as against that of 11.72 per cent among males. It has helped in reducing to some extent gender disparity.

Literacy is one of the most important basis for development. Literacy enhances the participation in developmental programs, leads to successful implementation. Inspired by success story of '*Ernakulam*', hundreds of districts in country adopted the model of Total Literacy Campaigns (TLC) and conducted Post Literacy Program (PLP). Total Literacy Campaign was implemented in Andhra Pradesh by name *Akshra Kiranam*. In Andhra Pradesh, from among 140 lakhs of illiterates identified in age group of 15-35 years by March 1998, 70 lakhs have been made literates through Total Literacy Campaigns and Post Literacy Campaigns. Mahabubnagar district is one of backward districts of Andhra Pradesh. Tribal literacy rate is lowest in Andhra Pradesh particularly in Mahabubnagar district, as compared to all other districts in Andhra Pradesh. *Akshra kiranam* was launched in Mahabubnagar District, on 16th June 1996, as *"Akshara kiranam"* intending to make 6,56,105 literates in age group of 15-35 years. Before introducing *Akshara kiranam* program in Mahabubnagar district, total literacy was 29.58 per cent. After execution of *Akshara kiranam program* literacy rate was found 34.35 per cent, i.e., on the whole there is an increase of a mere 4.77 per cent which can be attributed that *Aksharakiranam* program which has an impact on life style of women[11].

SAMPLE AND METHOD

Mahabubnagar district in *Telangana* region, is the most backward district in all aspects particularly in respect of literacy. Male and female literacy percentage is 29.58 and 18.03 per cent respectively. In this district, many people are agricultural laborers and *coolies*. Due to illiteracy majority of women continue to be ignorant and are exploited in society. The Government of Andhra Pradesh and district authorities have taken much interest and put efforts to increase literacy rate. Hence, there was a lot of improvement in literacy scenario of Mahabubnagar district. *Akshra kiranam* (Total Literacy Campaign) was held very effectively in this district and there is a lot of improvement[12]. The study was limited to adult education centres in Mahabubnagar district of Andhra Pradesh in India, to tribal women who were attending during period 1998 to 2001, but results or findings are not to be generalized to other communities. For a study of this problem as mentioned earlier "The impact of Adult Educational Programs on lifestyle of tribal women in Andhra Pradesh, India: An analytical study and critical evaluation" suitable method is descriptive qualitative study. In this type of study focus is on prevailing conditions. It deals with analysis, interpretation of data which have been gathered (collected) for a specific purpose for undertaking and solution of significant problem more empirically[13]. To carry out the study, for collection of data, for testing hypothesis, and for arriving at certain conclusions three tools were used, i.e. questionnaires, observations and interviews, where triangulation is strength for qualitative study. Sample for this study consisted of female learners who enrolled in adult education centres in age group between 15 – 35 years from tribal community in Mahabubnagar district of Andhra Pradesh. Sample is selected from population based on rate of ST community population. There are 64 revenue mandals in Mahabubnagar district. Among these 64 mandals due to vastness of study, only four revenue mandals were taken as sample mandals Viz., 1.Atchampeta, 2. Uppununthala, 3. Vangooru and 4.Telkapally, based on highest tribal population. These four mandals are highly concentrated with tribal population. In these four mandals adult education centres were selected randomly where programs implemented. Total 300 adult learners, 100 adult educators and 100 village elders / community leaders were selected for investigation.

According to data, majority (77%) of learners said that there is a positive impact on them due to their participation in adult education program. Eighty six per cent of learners responded saying that they are able to read. It has helped them to read names on busses, places. And other forms. They have learned basic additions and subtractions. 80% of learners said that they are approaching Government officials if they have any problem. Large group (90%) of them said that they have realized importance of education and among married learners 83% of them said that they are sending their children to school at right age. Ninety nine per cent of learners said that they are well aware of current events taking place around them. It is very interesting to note that they are not practicing superstitious beliefs after attending adult education program. They have learned some of facts, which are useful to them. Eighty nine per cent of learners responded saying that they are having good practices in their religious ceremonies. When it comes to dress pattern, only fifty five per cent of them said that there was a change taken place in their dress pattern after attending adult education program. Ninety eight per cent of learners said that they are taking care of their health. 92 % of them said that they are taking nutritious and balanced food. Among married learners, 60% of them said that they are aware of family planning methods and they are practicing. Eighty four per cent of learners said that they have learned to keep surroundings clean. Seventy two per cent of learners said that they came to know hazards of alcoholism and they are in favour of prohibition. Seventy nine per cent of learners, who are eligible for voting, said that they are utilizing their right to vote in elections. Eighty four per cent of learners said that they are taking part in society development activities like

Janmabhoomi. Eighty per cent of learners said that they have become members in *Mahila mandali* (*Mahalakshmi}* groups. Sixty three per cent of learners said that they have learned money saving procedures and they said that they are practicing[14].

Data collected pertaining to 100 adult educators, who were involved actively in teaching process through questionnaires, deals with their perceptions and observations about adult learners who were attending adult education centres and impact of adult education program on life style of tribal women. In a nutshell, how tribal people are changed due to their participation in adult education program, in general about social, self development, cultural aspects, health aspects, economic aspects and participation in developmental activities, etc. was also highlighted. Before going further it is appropriate to draw attention towards millennium development goals. These goals were framed according to the Nations Millennium Declaration of UN in 2000, set to be achieved by the year 2015. They arise from a realization that there will be no development without security, and no security with out development, and neither possible without respect for human rights. Basically there will be not social security as along as there is no social inclusion with given situation a country like ours where social exclusion prevailed, that suppressed the people of lower strata for many years.

SOCIAL AWARENESS ASPECT

Keeping the above background in view, all respondents were categorized into three age groups as 15 -19 Years, 20 – 29 Years, and 30 – 35 Years, and social awareness aspect is divided in to three sub groups as high impact, moderate impact, and low impact based on quartile values. Among learners who are in between 15 – 19 years of age, very few (9.4%) of them reported that they have acquired high impact, more than half (57.6%) of them said that they have acquired moderate impact in their social awareness aspect, where as one third (32.9%) of them said that, they had low impact in their social awareness levels because of adult education program. In second group 20 – 29 years of age, nearly one fourth (24.6%) of them said that they have acquired high impact, but in this group interestingly more than half (59.4%) of them said that they have acquired moderate impact, only very few of them said that they have acquired low impact on their social awareness levels. In third group, nearly half of them (49.4%) said that they have acquired high impact and almost same number of learners (48.1%) reported that they have acquired moderate impact where as very few learners (2.6%) said that they have acquired very less impact. It is clear indication that age of learners is playing a major role in social awareness levels of learners.

Data also shows that, there is a variation in social awareness levels of learners who attended program based on marital status. It indicates that marital status of learner plays a major role in learning process and ultimately learning out comes. It shows that, among unmarried learners very few (5.4%) of them says that they have high impact and more than half (53%) of them said that there is moderate impact where as 41.7% of them said that there is low impact on their social awareness levels. When it comes to second group, who are married learners one third of them (32.6%) of them said there is high impact, more than half (59.8%) of them said that there is moderate impact and very few (7.6%) of them said that there is low impact, learners who attend program regularly 24% of them said that there is high impact, more than half (59.5%) of them said that there is moderate impact and very few (16.5%) of them said that there is low impact. When it comes to regular learners only 4% of them said that there is high impact and half of them (49%)said that there is moderate impact where as 47% of them said that there is low impact[15].

CULTURAL ASPECT

In any community or tribe, cultural aspects play a major role in their lives. But education is one component, which can bring desired changes in cultural aspects of any community[7]. Data, clearly indicates that among 15-19 years age group of learners 49.4% of them said they have acquired high impact, nearly 43.5% of them said they have acquired moderate impact 7.1% of said that adult education program created low impact, on their cultural aspects. Among learners who belong to 20-29 years, 18.8% of them said there is high impact, and 65.9% of them said there is moderate impact where as 15.2% of them said that there is low impact. Among 30-35 years age group learners 9.1% of them said that there is high impact and, 72.7% of them said there moderate impact and 18.2% of them said there is low impact on their cultural aspects.

The learner's performance and changes in cultural values were discussed in relation to marital status of learner. Culture is one of major components of society and life style. Education brings desired qualities in culture. Through education only we can bring change or transformation in culture. In this process of transformation of culture, marital status of individual plays a major role. Very few (10.7%) of them said that there is high impact, where as majority (70.2%) of them said that there is moderate impact and 19% of unmarried learners said that there is low impact. In second group who are married learners, 43.2% of them said that there is high impact, and half (50%) of them said that there is moderate impact where as very few (6.8%) of them said that there is low impact. above statements prove that, there is a significant role played by marital status of learner. However, along with other factors, marital status of learner is also important. Based on about findings it is concluded that there is influence of marital cultural values they have acquired at centres.

The learners nature of attendance, whether regular are irregular and how it effected learning process, was studied. Data shows that those learners who attend classes regularly have acquired high impact and who are attending program irregularly have acquired low impact. Data shows that among irregular learners, 30% of them have acquired high impact and 60% of them have acquired moderate impact where as 10% of them have acquired low impact. Among regular learners 15% of them said that there is high impact and, 64% of them said there is moderate impact and 21% of them said that there is low impact[16].

HEALTH AND FAMILY PLANNING ASPECT

The data shows that tribal women, who were attending programs, were much benefited and shows that different age group of learners and their learning out comes are vary. It shows that it is adult education, not age of learner, which brought this impact.

Among learners who are in between 15-19 years (9.4%) of them said there is high impact, majority (81.1%) of them said that there is moderate impact where as very few (9.4%) of them said there is low impact. Among learners who belongs to 20-29 years, very few (13.8%) of them said that there is high impact and more than half (53.6%) of them said that there is moderate impact where as one third (32.6%) of them said that there is low impact. Among learners who are in between 30-35 years of age, only 5.2% of them said that they have acquired high impact and 42.9% of them said there is moderate impact and more than half (51.9%) of them said that there is low impact.

Under health aspect, health practices of individual learner and health practices at community level and family planning measures were studied and was found from analysis that marital status of learner plays a role in health practices of learner. Program aimed at well being of individuals as well as society. In this process, along with literacy program health awareness was also taught. At adult education centre, learning out comes levels were different among married and unmarried learners. That data analysis presents following facts, among unmarried learners, only 11.3% of them said that they have acquired high impact 42.9% of them said that they have acquired moderate impact and 45.8% of learners said that they have acquired low impact. Among married learners, 9.1% of them said they have high impact, where as majority of them (78.8%) of them said that there is moderate impact and 12.5% of them said that they have acquired low impact. These statements show that there is relation ship between marital status of learner and health practices they have acquired or its impact on their lifestyle. It also shows that there is a significant difference in learning out comes of learners in relation to their marital status.

According to data, those who are attending irregularly 12% of them said that there is high impact and 62% of them have acquired moderate impact where as 26% of them have acquired low impact. Among regular learners, only 7% of them said that they have acquired high impact and more than half (52%) of them said that they have acquired moderate impact, 41% of them said they have acquired low impact[17].

ECONOMIC DEVELOPMENT

The data shows that, among learners between 15-19 years of age majority (75.3%) of them said that there is high impact, 18.8% of them said there is moderate impact, but very few (5.9%) of them said there is low impact. Among 20-29 years age group of learners, 31.9% of them said there is high impact, and 34.8% of them said there is moderate impact and one third (33.3%) of them said there is low impact. Among 30-35 years age group of learners very few of them (14.3%) said that there is high impact and 41.6% of them said there is moderate impact and 44.2% of them said there is low impact.

Age of learner played a vital role in learning process of adults. Economic status is one of aspects, which plays an important role in individual's life or in society development. When an individual is financially sound then only, we say that particular individuals economic status is good. Along with literacy program, adult education program aimed at economic development of individual particularly for women through inculcating concepts like Mahalakshmi group, self help groups, DWACRA, etc., projects. It is found from data analysis that impact of adult education program on economic aspects of tribal women was very high. Though it differed from individual to individual, in relation to age or marital status, it is showing that there is an impact. data presented following facts. Among unmarried learners, 16.7% of them said that there is high impact and 39.3% of them said that there is moderate impact where as nearly half (44%) of them said that there is low impact. Among unmarried learners, majority (68.9%) of them said that there is high impact 22.7% of them said there is moderate impact where as very few (8.3%) of them said that there is low impact.

Among irregular learners 19.5% of them said that there is low impact and nearly one third of them said that there is moderate impact and almost half (49.5%) of them said that there is high impact. Among regular attendance, 46% of them said that there is low impact, more than one third said that there is moderate impact and 20% of them said that there is high impact. Above findings show that there is a relationship between regularity in attendance and improvement in economic status of learner. It also shows that there is significant difference in impact levels of economic growth of learner[18].

PARTICIPATION IN DEVELOPMENTAL ACTIVITIES

In this aspect, data indicates that, there is a variation between learning out come and age of learner. Different age groups have said that there is an impact, but impact levels were varying. Among learners who are in between 15-19 years age more than half (62.4%) of them said that is high impact one third (34.1%)of them said that there is moderate impact and, 3.5% of them said there is low impact. In second group of learners, 28.3% of them said that is high impact and 36.2% of them said there is moderate impact where as 35.5% of them said that there is low impact. In third group, who are in between 30-35 year of age only few (3.9%) of them said that there high impact and 42.9% of them said that there is moderate impact where as more than half (53.2%) of them said there is low impact.

It was general assumption that married women will not participate. But present scenario is changed everywhere, including, tribal *thandas* in Mahabubnagar District. Women are taking active part in elections, policy making and in business and agricultural sectors. Those misconceptions were varnished and new approaches and attitudes were created among tribal women, through adult education program. In pursuance of finding out impact of program on life style, study was focused in learner. Among unmarried learners very few (9.5%) of them said that there is high impact and 40.5% of them said that there is moderate impact and half (50%) of them said that there is low impact. Among married learners, majority of them (59.8%) said that there is high impact one third (33.4%) of them said that there is moderate impact and very few (6.8%) of them said there is low impact.

The data indicated that there is a relationship between nature of attendance and impact on participation. Those learners who are attending regularly made a positive impact that irregular learners. Among regular attending learners, 40% of them said there is high impact and more than one third (36%) of them said that there is moderate impact and 24% of them said there is low impact. Among irregularly attending learners only very few of (0.5%) of them said that there is high impact. 40% of them said that there is moderate impact and 45% of them said that there is low impact[19].

CONCLUSION

Along with primary, secondary and higher education, for enhancing lifestyle of tribal women and social inclusion in national main stream, adult education also plays a pivotal role. In a way adult education is contributing to social inclusion by developing knowledge of reading, writing and arithmetic and national values, there by helping to develop capacity to get rid of the clutches of social evils that used to keep them under bondage generation after generation. In conclusion, the study reemphasizes that literacy is the fountain of human, social, and cultural capitals. It is the wealth of nation in respect of economic, political and social transformation. Adult education program has resulted in a positive change in attitude, a new confidence among the learners to upgrade their skills and adopt it for individual development, and eventually for social action. The enthusiasm and confidence generated among learners who have successfully completed the literacy programs establishes the fact that there is am immense impact of adult education on the lifestyle of tribal women. As adult education aims at social reconstruction, it can be concluded that adult education is a key element for Tribal Women's empowerment in the light of social inclusion.

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EFFECTIVENESS OF NREGA'S IMPLEMENTATION IN INDIA

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ABSTRACT

National Rural Employment Guarantee Act (NREGA) was introduced in 2005 with the objective of providing one hundred workdays per year of employment in every financial year to one household1 willing to do unskilled manual work at the wage rate fixed by the Act. This paper attempts to critically evaluate the working and implementation of NREGA. The present study scrutinizes various performance indicators like Average Persondays per Household, Total Available Fund, Total Expenditure, Share of Women, SC and ST participation etc. Although NREGA has successfully provided last resort employment to rural population who is incapable of finding any other means of livelihood, it has serious limitations. Due to lack of skill development and durable infrastructure, workers remain dependent on the scheme for income. There is a wide gap between the available funds and actual expenditure of funds in majority of States. There is a lack of good governance which is reflected through the fact that Gram Sabhas and Gram Panchayats are incapable of funds disbursement in productive channels. Lastly, the weak areas of NREGA are discussed and required solutions are suggested to correct them so that NREGA could infuse better prospects of economic development in rural India.

JEL CLASSIFICATION
G1

KEYWORDS
National Rural Employment Guarantee Act, NREGA.

INTRODUCTION

Rural poverty and unemployment has grown at unprecedented rate in India in the past few decades. There has been a consistent growth in illiteracy, malnourished children, anaemic pregnant women, farmer suicides and starvation deaths resulting from inappropriate employment opportunities and thereafter emerging poverty. To resolve such inter related issues and provide subsistence employment security in rural areas, Government of India (GoI) enacted the National Rural Employment Guarantee Act (NREGA) on 25th August, 2005. The Act came into force in 200 districts in February, 2006 and within a year it came to 130 districts. The popularity of the scheme universalized in 2008 bringing the entire country under its horizon with the exception of districts that have 100 percent urban population. Soon the scheme was renamed as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on 2nd October, 2009. This is the biggest poverty alleviation programme in India which started with an initial outlay of Rs. 11,300 crore in year 2006-07 and now its Rs. 40,000 crore in year 2012-13.

[1] A household is defined as members of a family related to each other by blood, marriage or adoption, and normally residing together and sharing meals.

MANDATE AND OBJECTIVES

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:

- Ensuring 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,
- Aiding in the 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.

SCOPE OF NREGA

- **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**: Each Job Card is issued within 15 days of registration and hold a unique identification number. Job Cards are also supposed to be updated with days of work and payment made to the beneficiary as and when the work is undertaken.
- **Application of Work**: A written application seeking work is to be made to the GP or Block Office, stating the time and duration for which work is sought. The GP will issue a dated receipt of the written application for employment, against which the guarantee of 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**: Work is provided within 5 kilometres (kms) radius of the village. In case, work is provided beyond 5 kms, 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 MGNREGA 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**: The GoI bears the 100 per cent wage cost of unskilled manual labour and 75 per cent of the material cost, including the wages of skilled and semi-skilled workers.
- **Worksite Management**: To ensure that the workers are directly benefitted under the Scheme, the Act prohibits the use of contractors or machinery in execution of the works. 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**: Social audit to scrutinize all the records and works under the Scheme are to be conducted regularly by the GS. 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.

NREGA is a demand-driven programme where provision of work is triggered by the demand for work by wage-seekers. It overcomes problems of targeting through its self-targeting mechanism of beneficiary selection. It incentivizes States to provide employment as 100 per cent of the unskilled labour cost and 75 per cent of the material cost of the programme is borne by the GoI. The order of devolution of financial resources to GPs (with GPs implementing 50 per cent of the works in terms of cost) is unprecedented. The bottom-up, people-centred, demand-driven architecture also means that a great share of the responsibility for the success of the MGNREGA lies with the wage-seekers, Gram Sabhas and Gram Panchayats. The self-targeting approach of NREGA works on the opportunity cost framework. The individuals who do not show up to work either do not need money or can find better paying jobs. Therefore, the State need not search who is poor and eligible.

REVIEW OF LITERATURE

Jean Dreze (2010) advocates the transition to a right based framework has led to a major decline in labor exploitation in rural public works and there has been an increase in the wages paid since the initial phase of NREGA.

In an interview to The Economist, the Minister of Rural Development of India, Mr. Jairam Ramesh (2011) has said that because MGNREGA's pay is better than any other rural jobs, it has given workers a bargaining power to demand higher wages from private employers. He pointed out that NREGA is plagued by a number of implementation problems. There is a lack of capacity and uneven happenings of Gram Sabha.

Datta Polly (2007), in the Report of Comptroller and Auditor General (CAG) described the lack of appropriate administrative and technical manpower as a big obstacle in the success of NREGA because it undermines the preparation of plans, security, approval and monitoring of the work being funded.

A study by Sjoblom, Disa and John Farrington (2008) reveals that the program is facing corruption problems with respect to implementation and work allocation. Local officials in Gujarat, Madhya Pradesh and Jharkhand were found demanding bribe for job cards, as high as a daily wage. There have been discrimination with regard to caste, age and gender, evidently single women households being denied registration.

Wright, Tom and Harsh Gupta (2011) study reveals that concentration of power lies in the hands of few people who tend to control the employment lists and a set of individuals is paid irrespective of their work contribution.

The All India Report on Evaluation of NREGA (2008), a survey of 20 districts claimed that 80 percent of Households expressed that they did not get the work within the stipulated 15 days time. In addition, they were not paid the employment allowance as per the Act. The survey observed that the number of Households spending less on food has come down sharply and there is a rise in number of families who are spending more on food and non food items.

Anshmann and Paulomee (2007) found that emphasis of NREGA is on the creation of assets which form a part of basic infrastructure for the society. Forty two percent of work cases included creation of new ponds and cleaning of the existing ones, twenty six percent of cases were work related to road construction and maintenance, sixteen percent of the cases formed check-dam related work like canal maintenance and mud work.

Lastly, NREGA seems to affect migration with mixed results. Since the program employment is provided within 5 kms of distance, there seems to a fall in migration due to local insurance (Basu & Arnab, 2011) but migration is important to join productive sectors of the economy. Mobility is crucial for the channelization of resources, development and economic growth (Kochhar, Anjini, 2006)

DATA ANALYSIS

Census data reveals that rural population decreased from 72 percent to 69 percent in India. Since it is well known that rural areas have higher fertility rate than urban areas, 3.2 and 2.2 children per women, respectively, the decrease in the rural population is likely due to rural-urban migration (Table 1). The urban population has risen from 28 percent to 31 percent.

TABLE 1: RURAL-URBAN POPULATION DISTRIBUTION IN INDIA

Distribution	2001 Census	2011 Census
Rural	72	69
Urban	28	31

Source: Ministry of Home Affairs, Government of India. Census data retrieved from www.censusindia.gov.in

The total number of Job cards issued increased roughly twice in magnitude in the first successive year of the introduction of NREGA. (Table 2) Although from 3.78 crore in FY 2006-07 to 12.79 crore in FY 2012-13, the rise in the issuance of Job cards has been four times, but it has not shown much increase since the past three consecutive years. The Employment Provided to Households has shown a consistent rise from 2.10 crore in 2006-07 to 4.98 crore in 2012-13 except for few years in between the time period shown. NREGA is expected to have a significant impact on migration due to 100 days of employment guarantee (which is the estimated number of days farmers remain idle in agriculture) and therefore have lesser incentive to migrate to urban areas. However, the extent of rural-urban migration resulting from the introduction of NREGA is a matter of a detailed econometric analysis.

TABLE 2: JOB CARDS AND EMPLOYMENT GENERATED IN NREGA

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (Provisional)	2013-14 (Till Dec, 13)
Total Job Card issued (In Crore)	3.78	6.48	10.01	11.25	11.98	12.50	12.79	12.72
Employment Provided to Households (In Crore)	2.10	3.39	4.51	5.26	5.49	5.06	4.98	3.81

Source: www.nrega.nic.in

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. From 40 percent in FY 2006-07, the Women participation has risen to more than half of all the participants, being 54 percent in 2013-14(Till Dec.,13) 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 46 in 2012-13(Table 3) which is not even half of the guaranteed 100 days. Such a low figure may be a result of a number of reasons like lack of knowledge and worker rights in some villages. Sometimes, well aware individuals do not get job because of lack of good relations with administrators.

TABLE 3: NREGA PARTICIPANTS AND NUMBER OF PERSONDAYS PER HOUSEHOLD

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (Provisional)	2013-14 (Till Dec, 13)
SCs	25	27	29	30	31	22	22	23
STs	36	29	25	21	21	19	18	16
Women	40	43	48	48	48	48	51	54
Persondays per Household (Days)	**43**	**42**	**48**	**54**	**47**	**43**	**46**	**35**

Source: www.nrega.nic.in

Financial performance of NREGA is shown in Table 4. The budget outlay of the scheme has increased three times since 2006-07. The percentage of expenditure has been showing mixes trends and is at 88 percent out of the total budget. The expenditure on wages has increased from 66 percent to 76 percent. This indicates that wage share expenditure has been able to generate more employment compared to previous years. The gap between the works taken up and the works completed has risen sharply over the years. This is due to lack of good governance and administration on the part of employers in NREGA.

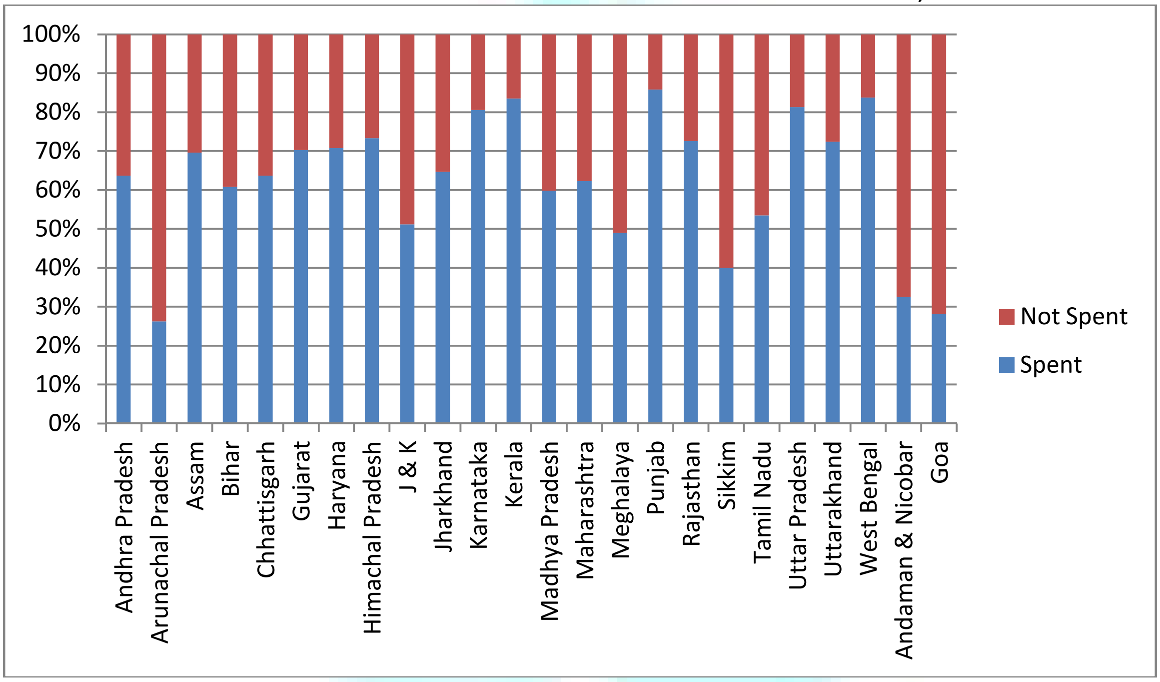
TABLE 4: FINANCIAL INDICATORS OF NREGA

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13(Provisional)	2013-14 (Till Dec, 13)
Budget Outlay (In Rs. Crore)	11300	12000	30000	39100	40100	40000	33000	33000
Expenditure (%)	73	82	73	76	73	76	88	67
Expenditure on Wages (%)	66	68	67	70	68	70	72	76
Total works taken up (in lakhs)	8.35	17.88	27.75	46.17	50.99	80.77	106.51	111.64
Works completed (in lakhs)	3.87	8.22	12.14	22.59	25.90	27.56	25.60	11.17

Source: www.nrega.nic.in

Each State proposes a Labour Budget to Central government which calculates expected demand for unskilled manual work. The central government releases NREGA funds on the basis of this proposal and an analysis of utilization of funds previously released. There is a large variation in the percentage of share spent by States. Many States spent less than 70 percent of the disbursed funds in the current year. Figure 1 shows that States vary widely in their expenditure/total funds ratio, and the average ratio is 67 per cent. Goa and Arunachal Pradesh spent less than half of the funds available. Kerala and Punjab spent more than 80 per cent of funds wherein a quarter of the financial year still left. This graph poses serious questions on the working and efficiency of the scheme for society's best interest. The possible explanations seem to be poor allocation of resources allowing for leakages or idleness of funds.

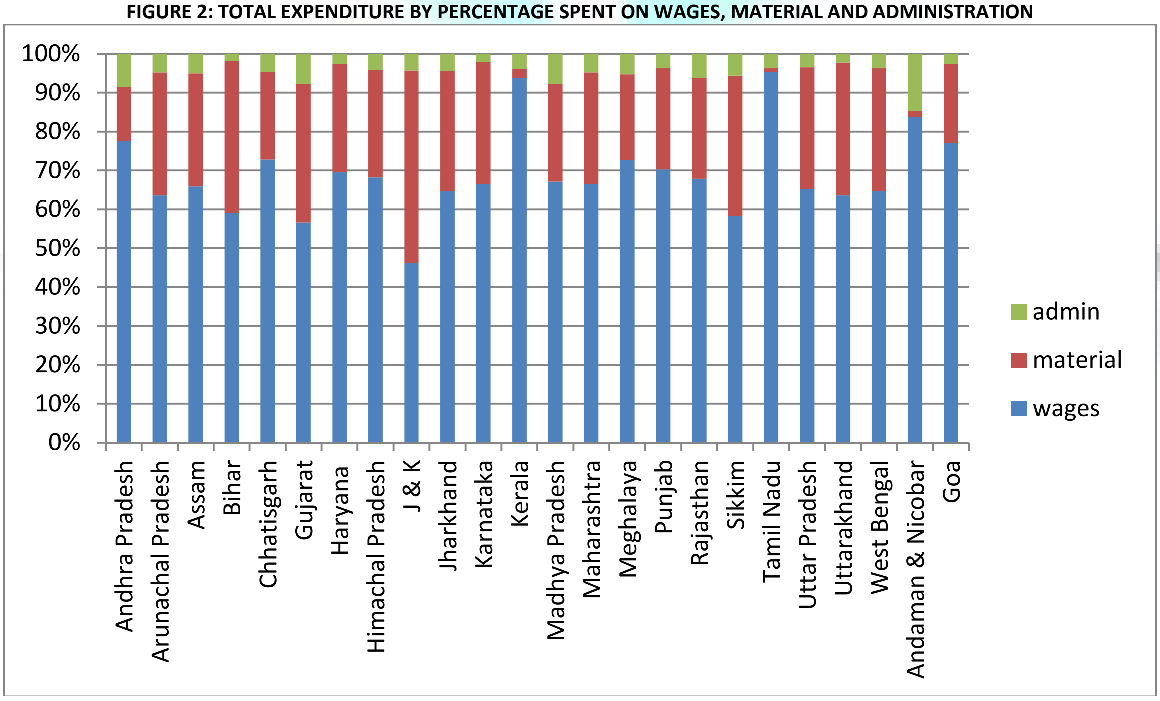
FIGURE 1: PERCENTAGE OF NREGA FUNDS THAT WERE SPENT IN FY 2013-14 DEC, 13



Source: www.nrega.nic.in

However, there seems to be no correlation between corruption level and expenditure. Infact the least and most corrupt states (Andhra Pradesh & Bihar, respectively) have almost the same expenditure ratio. States expenditure also varies sharply according to the share dedicated to the wages, material and administration costs. (Figure 2)

FIGURE 2: TOTAL EXPENDITURE BY PERCENTAGE SPENT ON WAGES, MATERIAL AND ADMINISTRATION

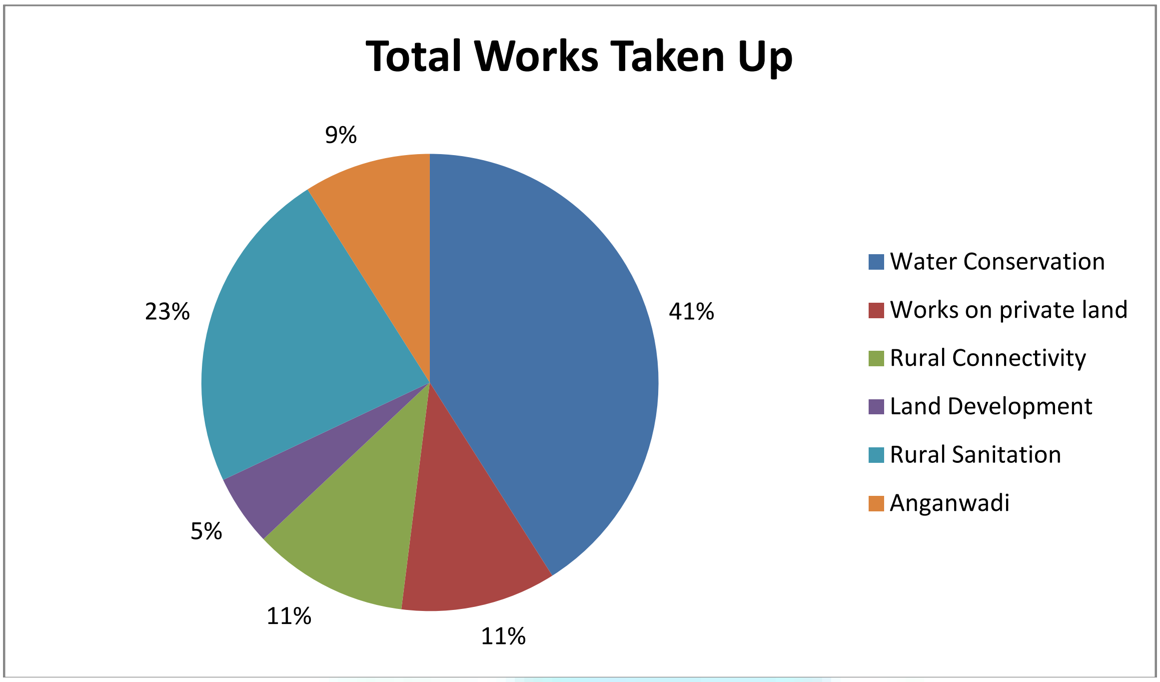


Source: www.nrega.nic.in

Some states like Uttarakhand and Bihar have very low administrative expenses of around 1 per cent. The average for all states is also low, less than 5 per cent. In Jammu & Kashmir, workers' wages are less than 50 per cent of the program's total expenditure while the average for all states is 75 per cent. Clearly NREGA doesn't work efficiently in J&K, Sikkim, Bihar and Arunachal Pradesh. Many of the states do not adhere to the 60:40 wages to material costs ratio prescribed in the scheme's operational guidelines. Tamil Nadu and Andaman & Nicobar show less than 1 per cent expenses on material which is unlikely to actually happen. Either there is a problem of mis-reporting or fund leakage for such vague numbers.

Figure 3 shows the proportion of works taken up in NREGA. Out of 111.64 lakhs in FY 2013-14, till Dec, 13 only 11.17 lakhs worth of work has been completed this year till Dec, 13 which will increase by the year end. Water Conservation accounts for the highest share of 41 per cent while Land development accounts for just 5 per cent.

FIGURE 3: TOTAL WORKS TAKEN UP IN NREGA IN FY 2013-14



Source: www.nrega.nic.in

DISCUSSION & CONCLUSION

The introduction of NREGA has been a public debate since it is introduced. NREGA has come after almost 56 years of experience of other rural employment programmes, which include both Centrally Sponsored Schemes and those launched by State Govt. These comprise the National Rural Employment Programme (NREP) 1980- 89; Rural Landless Employment Guarantee Programme (RLEGP) 1983-89; Jawahar Rojgar Yojana (JRY) 1989-1990; Employment Assurance Scheme (EAS)1993-99; Jawahar Gram Samridhi Yojana (JGSY) 1999-2002; Sampoorna Grameen Rojgar Yojana (SGRY) from 2001;National Food For Work Programme (NFFWP) from 2004 were national rural employment schemes. Among these, the SGRY and NFFWP have been merged with NREGA in 2005. Of all these schemes, NREGA has been the most efficient in the work implementation. The analysis of NREGA's implementation shows that program has been a successful measure to fight unemployment on some grounds. Firstly, the scheme's built-in mechanism of "self-targeting" attracts poor and needy people and is less attractive to non-poor people who are capable of finding better employment opportunities. Secondly, the poor individuals are encouraged to demand higher wages from private employers. Thirdly, there has been a significant rise in the employment creation among Scheduled castes, Scheduled Tribes and Women which accounts for the weaker section of the society.

USE OF E-GOVERNANCE IN NREGA

- **MIS**

The ministry has developed a web enabled MIS, www.mgnrega.nic.in dedicated to this ambitious program. The system makes the enormous data obtainable to public in a whole transparent manner. The MIS incorporated independent pages devoted to every panchayat (almost 2.5 Lakh), the data of 619 districts belonging to 34 states and Union Territories. The various stakeholders like common public, Zilla Parishadas, Gram Panchayat, staff, workers, district program coordinators, program officers, and ministry use this MIS system.

The ministry along with National Informatics Centre (NIC) has developed a very comprehensive software package as "NREGA soft". The "NREGA soft" is a local language work flow based transaction level system designed for all MGNREGA related activities. The software is hosted on the portal of Mahatma Gandhi NREGA. The software provides a transparent system across all the areas connected to exchange of data for a variety of users.

- **DEVELOPMENTAL PROJECTS**

The innovative technology is being used and tested for implementing the scheme in more efficient manner and to decrease the gaps observed during last few years. The handheld devices like Laptops, mobile phones, are being used for data capturing, downloading and transferring. The NREGA soft after processing the data sends the pertinent information to banks and post offices for fast payments to NREGA workers. Another very significant development is taking place is "Aadhaar" based authentication of a worker which will offer dependable biometric system in future.

Though NREGA produces benefits for rural India through provision of last resort employment, programme has many areas that need improvement in order to increase its efficiency and efficacy. NREGA's weakest areas and effective suggestions are discussed as follows:

1) LACK OF SKILL DEVELOPMENT AND DURABLE INFRASTRUCTURE

The focus of an employment scheme should be achievement of twin objectives of skill development and building up of long term durable infrastructure. NREGA's structure and working limits it to simply generating last resort employment. As workers are uneducated and are not provided any kind of training or skills for the job market, the work efficiency is poor which is reflected in low quality infrastructure. As a result, workers are dependent on the scheme for jobs, and the maintenance of infrastructure is dependent on NREGA funds in rural areas. To correct such a scenario, NREGA should focus on building up a durable infrastructure by recruiting skilled personnel to handle machinery and oversee the works, and by training workers in new skills and roles that they can utilize in job market.

2) CORRUPTION AND UNTIMELY PAYMENTS

The loopholes in the implementation of NREGA clearly limit its scope, interest and impact. Due to corruption, payments are often delayed, sometimes by as long as a few months. This hampers the urgent need of income to a poor household. There is reporting of misuse or wastage of funds in several states to which Central government demands accountability for the scheme's funds. There should be assignment of a team in the Ministry of Rural Development assigned to tracking funds and ensuring that they are being put to good use. Management Information System (MIS) keeps track of all the transactions involving NREGA funds. This has been quite successful in Andhra Pradesh and has the potential to bring same benefits to other states.

3) INEFFECTIVE GOVERNANCE

There is a need of appointing full time professionals at the village councils and governments who are trained to manage work with speed, quality and accuracy, and are accountable to the councils. Use of information technology to improve work and increase transparency in the sanction of works, release of funds, and wage payments (in a process called social audit) and also take appropriate action where there is an evidence of fraud would be a major steps towards efficiency of the scheme. Technical and scientific support can help these organizations monitor NREGA more effectively. Capacity building would be highly beneficial and not too costly. Shah estimated that such an effort would cost only two percent of total NREGA costs, monitoring and evaluation would cost one percent and pure administrative expenses as low as one percent. It is in the scope of effective governance to generate awareness, transparency in registration and increase capacity of local institutions to increase successful implementation of the scheme.

Therefore, the performance analysis reaches us to the conclusion that despite few achievements, NREGA seems to be plagued by several issues and needs corrective measures broadly in the areas of governance and implementation in order to provide sustainable development to rural India and achieve the goal of financial inclusion.

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BUILDING BRAND LOYALTY THROUGH SOCIAL MEDIA

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ABSTRACT

The Internet has significantly changed the way our society connects with one another, does business, and socializes. The manufacturers should consider integrating social media into their business activities. This will allow them to attract new customers and reinforce brand loyalty among existing customers. Social media can serve as an excellent platform on which a company can explain certain decisions it has made, request customer feedback, and respond to customer complaints and queries. Companies are executing social media-centric marketing campaigns to enhance their customer experiences and in turn, build brand loyalty. In the current scenario, both manufacturers and consumers are increasingly looking to social media to garner information about each other. Any company that takes advantage of this wave to strengthen its brand loyalty will benefit greatly.

KEYWORDS
brand loyalty, social media.

INTRODUCTION - SOCIAL MEDIA

The Internet has significantly changed the way our society connects with one another, does business, and socializes. Today's youth have never known a world without the Internet, which is a piece of information adults must put into context when they think about and compare, generationally, social net-working to face-to-face communications. According to the Pew Internet & American Life Project, more than 93% of both teens (12-17) and young adults (18-29) in the United States use the Internet regularly, and more than 70% use social networking sites. Furthermore, among online teens, 62% use the Inter-net to get news about current events and politics, 48% use it to make purchases (books, clothing, and music), and 31% use it to get health, dieting, or physical fitness information. Online social networking presents both opportunities and risks. What follows is a cursory breakdown of both, followed by a series of lesson plans specifically targeting online safety.

ADVANTAGES OF SOCIAL MEDIA

- **Social skills.** Social networking allows people to keep up with current friends and make new ones. When used in the right way, social media can increase self-esteem and help someone feel less isolated.
- **Independence and self-expression.** Creating your own "home page" allows people to express themselves and discuss their interests. They can join groups and support fan pages, and find out about other people's interests.
- **Digital competence.** Technology is evolving faster than ever before. As teens and young adults learn to adapt to new technologies (or new applications of existing technologies), they will be better equipped to adapt to future technology.
- **Educational development.** Young adults in secondary and post-secondary education will often use social networking to discuss schoolwork and share discussions about assignments.
- **Research.** Young adults can gather information about topics that are hard to discuss with others, such as drug use and sexual health.
- **Additional advantages for youth with disabilities:** Social networking can open up a new world of communication, integration, and community participation. Young adults can express themselves, including their thoughts and feelings, more easily and without fear of the rejection or stigma they may experience in real life. Research also suggests that these young adults may be more willing to ask for help online than in face-to-face situations. Furthermore, young adults who experience difficulty with social skills can socialize anonymously, and can experiment with different personas and practice initiating and maintaining online friendships. They can also respond to others by taking advantage of having time to review and edit communications before sending it on. Ultimately, this skill may carry over into "real life" and give a sense of new courage to make and maintain friendships in everyday life.

RISKS OF SOCIAL NETWORKING

- **Sharing one's personal information with the wrong crowd.** Young adults need to be aware that information given out online could also put them at risk of victimization. People looking to do harm could use posted information to identify them or gain their trust. They can also be deceptive by pretending to know a young person. Encourage young people to privatize their online social networking accounts (such as Facebook and Twitter).
- **Bullying.** Harassment may occur online only (cyberbullying), or it may spill over to offline bullying committed by a person who has located his victim online. Cyberbullying can cause significant emotional harm resulting in depression, anger, school avoidance, violence, and suicide.
- **The permanency of online profiles.** Once information has been shared on the Internet, it's out there — forever! Retrieving information that others have read and captured is nearly impossible. Inappropriate pictures, captions, and comments could come back to haunt youth as they start applying to colleges or looking for jobs.
- **Disclosure.** People tend to be far bolder and less discretionary with information shared online versus in person. This means there is a greater risk of giving out information including the presence of a disability that, given a second thought, we might not have wanted to disclose.
- **Additional potential risks for youth with disabilities:** Social networking may further isolate those who may already feel isolated or not included, and can ultimately lead to depression and loneliness. Also, young adults with disabilities must make important life decisions regarding disclosure of their disability (if, how, when, and to whom). Unintended disclosure is possible by posting pictures or becoming fans of disability support groups, for example. While this might not be an issue, it makes the "disclosure" discussion even more important.

The process of empowering youth to make safe and responsible decisions online can be compared to the process by which they may have learned to safely cross the street. First they hold hands with an adult, and then they gain a little more independence and might be watched from afar. Ultimately, they become capable of making safe and responsible decisions on their own. Educating youth about social networking communities must be grounded in the providing of knowledge, skills, and values so that eventually they can be expected to independently exercise good judgment.

BRANDS – MEANING AND DEfiNITION

A brand is a distinguishing name and/or symbol (such as logo, trademark, or package design) intended to identify the goods or services of either one seller or a group of sellers, and to differentiate those goods or services from those of competitors. A brand thus signals to the customer the source of the product, and protects both the customer and the producer from competitors who would attempt to provide products that appear to be identical (Aaker, 1991). Brands provide the basis upon which consumers can identify and bond with a product or service or a group of products or services (Weilbacher, 1995). From the customer's point of view, a brand can be defined as the total accumulation of all his/her experiences, and is built at all points of contact with the customer

(Kapferer, 2004). A successful brand is an identifiable product, service, person or place, augmented in such a way that the buyer or user perceives relevant, unique added values which match their needs most closely (Chernatony and McDonald, 1998). According to Keller (2003a), consumer brand-knowledge can be defined in terms of the personal meaning about a brand stored in consumer memory, that is, all descriptive and evaluative brand-related information. Different sources and levels of knowledge such as awareness, attributes, benefits, images, thoughts, feelings, attitudes, and experiences get linked to a brand and its understanding by the consumer. The brand, in a sense, acts as a credible guarantee for that product or service, allowing the consumer clearly to identify and specify products which genuinely offer added value (Murphy, 1998). Powerful brands provide long-term security and growth, higher sustainable profits, and increased asset value because they achieve competitive differentiation, premium prices, higher sales volumes, economies of scale and reduced costs, and greater security of demand (Temporal, 2000). The Brand "promise" is the essence of the benefits (both functional and emotional) that customers can expect to receive from experiencing a brand's products/services, which reflects the heart, soul, and spirit of the brand (Knapp, 2000). Successful brands are those brands which adapt well to the environment and thus survive and flourish in the long term inspite of competition they face.

USING SOCIAL MEDIA TO BUILD BRAND LOYALTY

As the digital revolution changes the way consumers interact, consumer behavior across the world is rapidly evolving. The traditional media marketing tools of television and newspapers are facing increased competition from the more attractive alternatives provided by social media. These media — such as Facebook, Twitter, YouTube and LinkedIn — are essentially online platforms for social interaction.

The tightened spending on the part of consumers has led marketers to look for more cost-effective channels to reach their target audience. Customers' loyalty to a brand is based on their experiences, perceptions and feelings about the product or service. Social media is more interactive and provides excellent opportunities for food, drink and consumer goods (FDCG) companies to build long-term relationships with their customers. Consequently, companies are realizing the importance of using social media to connect with their customers.

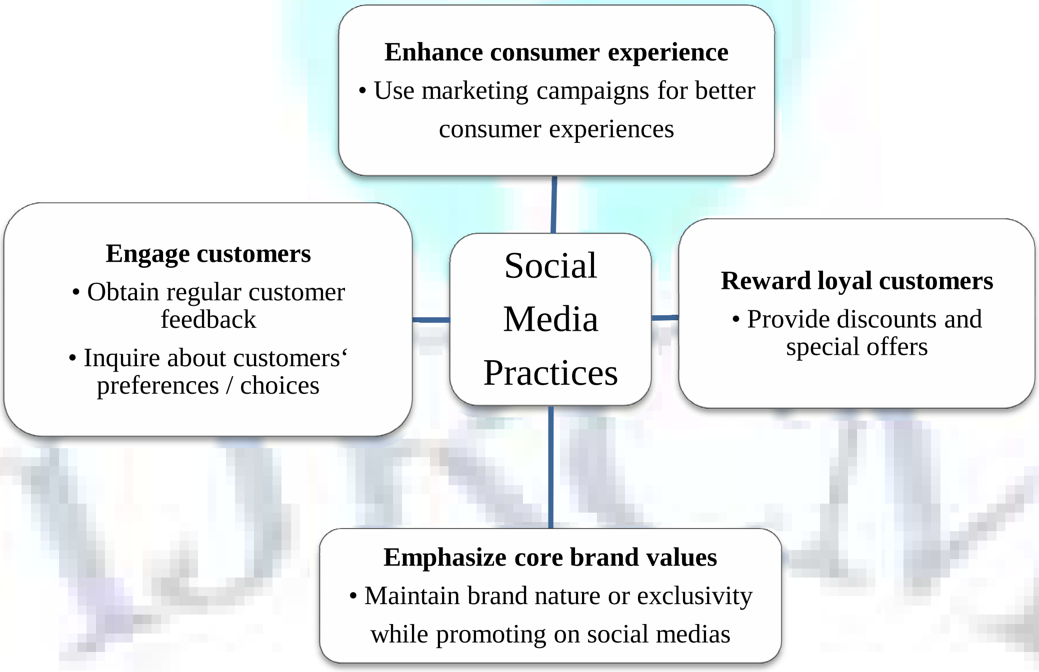
- Facebook is a social networking website where a user (including a company or manufacturer) can create a profile with photos, add other users as friends (including their audience or fans), list interests and exchange messages. Any user can join common interest user groups, meaning that the company can target various groups more effectively.
    - 'Like' button – Facebook's Like button lets users (including a company or manufacturer) share with friends (including their audience or fans) their approval of sites, fan pages or notifications. When the fan clicks the Like button on a company's page, a notification with a link to the company's page appears in the fans news feed. This way the company can generate a buzz among its audience.
- Twitter is a social networking and micro-blogging website that enables users (including companies or manufacturers) to send and read text-based posts of up to 140 characters. These posts, called tweets, are displayed on the user's profile page. On the Twitter platform, other users (its audience or fans) can subscribe to users' tweets. This is known as following, and subscribers are known as followers.

ENHANCING BRAND LOYALTY THROUGH SOCIAL MEDIA

Consumers today want to be more informed about products before they make the purchase. Consequently, manufacturers need to frequently engage with customers to keep them updated about their products. Moreover, marketers believe that customers will remain loyal to a brand if they can relate to and feel connected with a product. It is easier to establish such connections online than offline.

By letting customers know that their brand experiences and opinions on products matter, companies will be able to retain more customers. Further, after the sale of their products, companies need to incorporate customers into their communication channels and give them the opportunity to promote their products. This results in increasing use of social media by FDCG manufacturers. For instance, once a Facebook user 'likes' a brand, it shows that one more customer prefers that brand. Subsequently, he or she becomes part of the larger community of the brand. Figure 1 shows some industry best practices for building brand loyalty using social media.

FIGURE 1: SOCIAL MEDIA PRACTICES BY COMPANIES



ENGAGING CUSTOMERS AND ENCOURAGING FEEDBACK

Social media can serve as an excellent platform on which a company can explain certain decisions it has made, request customer feedback, and respond to customer complaints and queries. In fact, engaging customers with the company's brand while promoting products can be the most effective way to build brand loyalty.

- In June 2010, US-based women's clothing company Ann Taylor altered its marketing and advertising practices on the basis of customer feedback it had received via Facebook. Facebook fans (fans represent the number of Facebook users that follow a company) of Ann Taylor expressed their displeasure about the advertising used by its LOFT brand. The ads featured ultra-thin models wearing Ann Taylor clothing — that according to fans — would not look good on most women. In response, Ann Taylor posted photos of its own employees wearing the clothing. Subsequently, many of the company's fans posted comments on its Facebook page applauding the company's initiatives, which further boosted its brand image.

- PepsiCo uses Twitter extensively to engage its customers and respond to their queries. It believes that Twitter is the only medium where customers and the company can carry on a continuous conversation about the brand. In fact, the popularity of Pepsi's Twitter account, with over 58,800 followers in March 2011, allowed it to scale back the operations at its US call centers. The company sees Twitter as a better channel for customers who wish to comment or make a complaint. "

ENHANCING CUSTOMER EXPERIENCE

The food, drink and consumer goods manufacturers are executing social media-centric marketing campaigns to enhance their customer experiences and in turn, build brand loyalty. These campaigns also help companies attract new customers.

- In January 2011, Anheuser-Busch's Bud Light beer brand went online to engage consumers in the run-up to this year's Super Bowl, American football's showcase event of the year. It invited its Facebook fans to guess the storylines of each of its three Super Bowl advertisements via an application called 'Unlock the Spot.' If viewers could successfully determine the storylines, Bud Light would release an internet-only ad exclusively for them. Through such marketing initiatives, Anheuser-Busch hopes to attract new customers to its products. The company believes that these initiatives will not only keep customers engaged, but will also lead to discussions among customers — which in turn could help build brand loyalty.
- Coca-Cola, one of the most engaging brands on social media, had over 219,543 followers on Twitter and more than 23 million fans on Facebook in March 2011. On Twitter, the company posts its 'tweets' in different languages to engage consumers across the world. Further, it continually tries to make its Facebook home page more interesting and interactive. It posts fan photos, videos and news of its various social initiatives to engage consumers and enhance their experiences when they visit Coca-Cola's home page.

EMPHASIZING CORE BRAND VALUES

Most of the food, drink and consumer goods companies realize the importance of emphasizing their exclusive image and core brand values while promoting their products on social media platforms.

- Tiffany & Co., one of the premier jewellers in the world, had over 801,950 fans on Facebook as of February 2011. The company is an excellent example of a brand that regularly updates its home page, while maintaining the brand's luxury nature, values and principles. Tiffany regularly uploads photos of celebrities wearing its jewellery. Such activities help project the exclusivity of the brand, and encourage conversation among its audience, particularly among women.
- Unilever, one of the leading global consumer products companies, initiated its Sustainable Living Plan in November 2010, under which all its brands are likely to have a defined 'purpose,' which will be conveyed over social media platforms. The announcement of this initiative — which associates Unilever's brands with current social values — has received more than two million comments on Twitter alone, showing that the plan is proving successful. In this way, Unilever is expected to not only highlight its core values, but also gain the loyalty of its customers.

REWARDING LOYAL CUSTOMERS

The food, drink and consumer goods manufacturers post special offers or discounts on their social networking pages. Such deals could make customers return to the brand and reinforce their loyalty.

- Procter and Gamble (P&G) rewards its customers who 'like' or 'follow' its brands, such as Crest toothpaste, on Facebook and Twitter. P&G offers printable coupons or e-coupons and other free internet coupons to these 'loyal' customers. These coupons can be used by shoppers to avail discounts on Crest products.
- Healthy Choice, a brand owned by US-based ConAgra Foods, has offered a discount of 75 cents through coupons, on the subsequent product purchase, for customers who 'liked' the brand on Facebook. Within 25 hours of its launch in October 2010, its Facebook fan base tripled — and, according to company officials, it continued to grow, reaching a total of 53,000 fans within 10 days of launch of the discount initiative.

CONCLUSION

The food, drink and consumer goods manufacturers should consider integrating social media into their business activities. This will allow them to attract new customers and reinforce brand loyalty among existing customers. In the future, the Facebook 'like' button could become the one-click way to join a loyalty card system. These social media channels will work as loyalty platforms, as these channels have the advantage of keeping customers engaged in a social media marketplace. PepsiCo, Dunkin Donuts and many others are launching social media campaigns to engage millions of consumers in the process to enhance brand loyalty. In the current scenario, both manufacturers and consumers are increasingly looking to social media to garner information about each other. Any company that takes advantage of this wave to strengthen its brand loyalty will benefit greatly.

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IFRS: AN IMPLEMENTATION

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ABSTRACT
International Financial Reporting Standards (IFRS) are designed as a common global language for business affairs so that company accounts are understandable and comparable across international boundaries. They are a consequence of growing international shareholding and trade and are particularly important for companies that have dealings in several countries. They are progressively replacing the many different national accounting standards. The rules to be followed by accountants to maintain books of accounts which is comparable, understandable, reliable and relevant as per the users internal or external. IFRS began as an attempt to harmonies accounting across the European Union but the value of harmonization quickly made the concept attractive around the world. They are sometimes still called by the original name of International Accounting Standards (IAS). IAS were issued between 1973 and 2001 by the Board of the International Accounting Standards Committee (IASC). On 1 April 2001, the new International Accounting Standards Board took over from the IASC the responsibility for setting International Accounting Standards. During its first meeting the new Board adopted existing IAS and Standing Interpretations Committee standards (SICs). The IASB has continued to develop standards calling the new standards International Financial Reporting Standards (IFRS). Requirements of IFRS consists a Statement of Financial Position, a Statement of Comprehensive Income separate statements comprising an Income Statement and separately a Statement of Comprehensive Income, which reconciles Profit or Loss on the Income statement to total comprehensive income, a Statement of Changes in Equity (SOCE), a Cash Flow Statement or Statement of Cash Flows & notes, including a summary of the significant accounting policies. US GAAP-IFRS Differences Identifier Tool|| provides a more in-depth review of differences between US GAAP and IFRS. The Identifier Tool was developed as a resource for companies that need to analyze the numerous accounting decisions and changes inherent in a conversion to IFRS. Conversion is of course more than just an accounting exercise, and identifying accounting differences is only the first step in the process. Successfully converting to IFRS also entails ongoing project management, systems and process change analysis, tax considerations and a review of all company agreements that are based on financial data and measures. Assurance, tax and advisory professionals are available to share their experiences and to assist companies in analyzing all aspects of the conversion process, from the earliest diagnostic stages through ultimate adoption of the international standards.

KEYWORDS
IFRS, accounting.

INTRODUCTION
The goal with IFRS is to make international comparisons as easy as possible. This is difficult because, to a large extent, each country has its own set of rules. For example, U.S. GAAP are different from Canadian GAAP. Synchronizing accounting standards across the globe is an ongoing process in the international accounting community. The financial statements of some firms are designed to hide rather than reveal information. Investors should steer clear of companies that lack transparency in their business operations, financial statements or strategies. Companies with inscrutable financials and complex business structures are riskier and less valuable investments.

TRANSPARENCY IS ASSURANCE
The word "transparent" can be used to describe high-quality financial statements. The term has quickly become a part of business vocabulary. Dictionaries offer many definitions for the word, but those synonyms relevant to financial reporting are: "easily understood," "very clear," "frank" and "candid."

Consider two companies with the same market capitalization, overall market-risk exposure and financial leverage. Assume that both also have the same earnings, earnings growth rate and similar returns on capital. The difference is that Company X is a single-business company with easy-to-understand financial statements. Company Y, by contrast, has numerous businesses and subsidiaries with complex financials.

Which one will have more value? Odds are good the market will value Company X more highly. Because of its complex and opaque financial statements, Company Y's value will be discounted.

The reason is simple: less information means less certainty for investors. When financial statements are not transparent, investors can never be sure about a company's real fundamentals and true risk. For instance, a firm's growth prospects are related to how it invests. It's difficult, if not impossible, to evaluate a company's investment performance if its investments are funneled through holding companies, hiding from view. Lack of transparency may also obscure the company's debt level. If a company hides its debt, investors can't estimate their exposure to bankruptcy risk.

High-profile cases of financial shenanigans, such as those at Enron and Tyco, showed everyone that managers employ fuzzy financials and complex business structures to hide unpleasant news. Lack of transparency can mean nasty surprises to come.

The reasons for inaccurate financial reporting are varied. A small but dangerous minority of companies actively intends to defraud investors. Other companies may release information that is misleading but technically conforms to legal standards.

TRANSPARENCY PAYS
Mounting evidence suggests that the market gives a higher value to firms that are upfront with investors and analysts. Transparency pays, according to Robert Eccles, author of "The Value Reporting Revolution" (2001). Eccles shows that companies with fuller disclosure win more trust from investors. Relevant and reliable information means less risk to investors and thus a lower cost of capital, which naturally translates into higher valuations. The key finding is that companies that share the key metrics and performance indicators that investors consider important are more valuable than those companies that keep information to themselves.

Of course, there are two ways to interpret this evidence. One is that the market rewards more transparent companies with higher valuations because the risk of unpleasant surprises is believed to be lower. The other interpretation is that companies with good results usually release their earnings earlier. Companies that are doing well have nothing to hide and are eager to publicize their good performance as widely as possible. It is in their interest to be transparent and forthcoming with information, so that the market can upgrade their fair value.

Further evidence suggests that the tendency among investors to mark down complexity explains the conglomerate discount. Relative to single-market or pure play firms, conglomerates could be discounted. The positive reaction associated with spin-offs and divestment can be viewed as evidence that the market rewards transparency. Naturally, there could be other reasons for the conglomerate discount. It could be the lack of focus of these companies and the inefficiencies that follow. Or it could be that the absence of market prices for the separate businesses makes it harder for investors to assess value.

IFRS – WHAT IT IS?

International Financial Reporting Standards (IFRS) is a set of accounting standards developed by an independent, not-for-profit organization called the International Accounting Standards Board (IASB). The goal of IFRS is to provide a global framework for how public companies prepare and disclose their financial statements. IFRS provides general guidance for the preparation of financial statements, rather than setting rules for industry-specific reporting.

Having an international standard is especially important for large companies that have subsidiaries in different countries. Adopting a single set of world-wide standards will simplify accounting procedures by allowing a company to use one reporting language throughout. A single standard will also provide investors and auditors with a cohesive view of finances. Currently, over 100 countries permit or require IFRS for public companies, with more countries expected to transition to IFRS by 2015. Proponents of IFRS as an international standard maintain that the cost of implementing IFRS could be offset by the potential for compliance to improve credit ratings. IFRS is sometimes confused with IAS (International Accounting Standards), which are older standards that IFRS has replaced

GAAP

Generally Accepted Accounting Principles (GAAP) refers to a widely accepted set of rules, standards, conventions, and procedures for reporting financial info. In USA this set of rules has been established by the Financial Accounting Standards Board (FASB). GAAP is an amalgamation of authoritative standards and the usually accepted methods of recording and reporting info on accounting.

As explained by Investopedia, GAAP are enforced on the companies so as to provide the investors with least possible level of reliability in the financial statements used while analyzing companies for investment purposes. The things covered by GAAP include revenue recognition, measuring outstanding share, and classification of items on balance sheet.

IAS

Standards for the preparation and presentation of financial statements created by the International Accounting Standards Committee (IASC). They were first written in 1973, and stopped when the International Accounting Standards Board (IASB) took over their creation in 2001.

IAS were issued between 1973 and 2001 by the Board of the International Accounting Standards Committee (IASC). On April 1, 2001, the new IASB took over from the IASC the responsibility for setting International Accounting Standards. During its first meeting the new Board adopted existing IAS and Standing Interpretations Committee standards (SICs). The IASB has continued to develop standards calling the new standards International Financial Reporting Standards (IFRS)..

IASC

The International Accounting Standards Committee (IASC) is an independent private-sector organization that in its own words is a “body working to achieve uniformity in the accounting principles that are used by businesses and other organizations for financial reporting around the world.” As stated in its constitution the IASC’s goals are to “formulate and publish in the public interest accounting standards to be observed in the presentation of financial statements and to promote their worldwide acceptance,” and to “work for the improvement and harmonization of regulations, accounting standards and procedures relating to the presentation of financial statements.”

IFRS CONVERSION IS MORE THAN AN ACCOUNTING CHANGE

Many areas of a company outside of the finance function may be impacted, including:

- Information technology
- Group structures
- Direct and indirect taxes
- Strategic plans (IPOs, investor relations, executive compensation)

ROADMAP FOR IFRS CONVERSION

The roadmap requires a phased approach for IFRS adoption. The three phases are outlined as follows:

Phase	Date	Coverage
Phase 1	Opening balance sheet as of 1 April 2011*	1. Companies that are part of NSE 50 (Nifty 50) 2. Companies that are part of BSE Sensex (BSE 50) 3. Companies whose shares or other securities are listed on a stock exchange outside India 4. Companies, listed or not, having net worth exceeding INR1,000 crore
Phase 2	Opening balance sheet as of 1 April 2013*	Companies not listed in phase 1 and having net worth exceeding INR500 crore
Phase 3	Opening balance sheet as of 1 April 2014*	Listed companies not covered in the earlier phases
*If the financial year of a company commences at a date other than 1 April, then it shall prepare its opening balance sheet at the commencement of the immediately following fiscal year.		

IFRS ROADMAP OVERVIEW

The MCA roadmap has provided specific dates for adoption of IFRS in India on the basis of a company’s net worth as indicated by the exchange on which they are traded. The IFRS conversion roadmap for Banks and Insurance companies will follow separately.

- Phase 1 companies are required to start reporting IFRS results from the first quarter of year beginning 1 April, 2011. Also, depending on how a company elects to present comparative information in the first year, the actual date of transition could be as early as 1 April 2010.
- The core group and its sub-group 1, constituted by the MCA for IFRS convergence, shall determine IFRS conversion roadmap for banking and insurance companies separately by 28 February 2010.
- Non-listed companies with net worth of less than INR 500 crore and other small and medium-sized companies (SMCs) have been given an option to continue to either follow non converged standards (hereinafter referred to as “Indian GAAP”) or to adopt IFRS.
- The draft of the Companies (Amendments) Bill, proposing for changes to the Companies Act, 1956, will be prepared by February, 2010.
- The Institute of Chartered Accountants of India (ICAI) has submitted to the MCA revised Schedule VI to the Companies Act, 1956. The NACAS shall review the draft and submit a revised Schedule VI to the MCA by 31 January 2010. Amendments to Schedule XIV will also be carried out in a time bound manner.
- Convergence of all the accounting standards with IFRS will be completed by the ICAI by 31 March 2010 and the NACAS will submit its final recommendations to MCA by 30 April 2010.
- The full abbreviation of the term “IFRS” is international financial reporting standard (IFRS). IFRS has been developed by International accounting standard board (IASB). As per IASB “IFRS refers to a set of international accounting standard stating how particular type of transactions and other events should be

reported in financial statement" or, in other words IFRS refers to guidelines and rules that companies and organizations are required to follow in preparing and presenting their financial statements.

Thus, IFRS are the rules, guidelines, standards set by IASB that companies and organizations across the world will follow uniformly and transparently in their preparation and presentations of financial statements.

NEED FOR IFRS IN INDIA

Following are the arguments in favour of IFRS implementation in India

- Globalization of Economies: Since today most of economies have been globalized and India is also not the exception. This has created the need for a uniform practice to bring more transparency and for satisfying the need for wider and demanding users.
- For Raising Capital from Overseas: Indian companies are raising capital from overseas which requires all information in International standard understandable to them.
- For Better Comparability of Financial Statements: For better comparability of financial statements it is necessary that accounting practices in different countries of the world are uniform.
- For Helping the MNCs to Prepare Consolidated Financial Statements : The MNCs which are operating in different countries of the world are finding it difficult to prepare consolidated financial statements due to different accounting rules and practices in different countries of the world.
- To Comply with Increasing Corporate Awareness: today corporate awareness and corporate governance requirements have increased many folds which require an advanced and uniform accounting practice.
- For Reducing Costs and Time: The Indian companies which are operating in two or more countries of the world are preparing financial statements separately for each country which is wasting time and money. Thus, the implementation of uniform accounting practice will reduce time and cost considerably.
- Better Quality of Information: the implementation of uniform accounting practice will provide much better quality of information.

SIGNIFICANT DIFFERENCES BETWEEN INTERNATIONAL ACCOUNTING STANDARD (IAS), INDIAN GAAP AND US GAAP

- **IAS US GAAP INDIAN GAAP :**Financial statements Balance sheet, statement of profit and loss, statement of cash flow and statement of changes in shareholders' equity Balance sheet, statement of profit and loss, statement of cash flow and statement of changes in shareholders equity and a statement of comprehensive income Balance sheet, profit and loss accounts with relevant accounting policies and notes (for listed company exceeding turnover 5 crores also cash flow statement)
- **Classification of current assets:** Distinction between current and non-current assets is optional; Distinction between current and non-current assets is not required.
- Offset of assets and liabilities offset of assets and liabilities is not permissible offset of assets and liabilities is permissible in some cases offset of assets and liabilities is not permissible
- Income statement does not provide format for income statement statement of profit and loss may either be presented in single- step format or multi -step format does not provide format for income statement.
- **Cash flow statement:** Both direct and indirect methods are permissible Both direct and indirect methods are permissible however for listed companies, indirect method has been prescribed
- Fixed assets revaluation upward revaluation is permissible Upward revaluation is not permissible
- **Revenue recognition:** No industry specific guidance Provides industry specific guidance No industry specific guidance
- Interim financial reporting not mandatory to prepare interim financial reporting Except few cases, Not mandatory to prepare interim financial reporting Quarterly interim financial rporting is necessary for listed companies

INITIATION OF IFRS IMPLEMENTATION IN INDIA

IFRS has not been made applicable to all companies till now; rather it is spreading its wings in phased manner. In India the Institute of charted accountant (ICAI) is taking key initiatives in IFRS implementation.

The implementation plan for implementing IFRS in India may be briefed as follows:

Year: 2011 Year: 2012 Year: 2013 Year: 2014

NSE-NIFTY 50 Companies All insurance companies Companies listed or not having a net worth between 500-1000 crores Listed Companies having a net worth of less than 500 crores BSE-SENSEX 30 Companies All scheduled commercial Banks Urban cooperative Banks having net worth 200 to 300 crores Companies whose shares are listed outside India Urban cooperative Banks having net worth in excess of 300 crores NBFCs: all Listed Companies listed or not having turnover more than 1000 crores NBFCs-NIFTY 50 or SENSEX 30 NBFCs: Unlisted but having net worth between 500 to 1000 crores NBFCs listed or not having net worth exceeding 1000 crores

KEY BENEFITS OF IFRS IMPLEMENTATION IN INDIA

- IFRS provides better financial information for the shareholders and regulatory system.
- IFRS enhance global ability and improve transparency of results.
- With the use of IFRS users can increase ability to secure cross boarder listing.
- With the help of IFRS one can improve management of global operations and better access the capital market.
- IFRS eliminates of multiple reporting, likewise Tata, Birla and Ambani firstly register in India and then outside India before implementing IFRS system.
- IFRS facilitate global investment opportunities inbound and outbound and also reduced cost of capital.
- Reduce barriers to enter global market and lowered the risk associated with dual filings of accounts.
- IFRS provides new and enhanced services especially in the field of business process outsourcing (BPO) and professional services firms.
- With the help of IFRS one can conduct once-only review of financial reporting and information system for control.
- Uniform accounting standard enabled investors to understand investment opportunity as against two different set of national accounting standard.
- With the help of IFRS corporate and investors would know it's true worth because fair valuation is mandated for many balance sheet items.

CHALLENGES FACED BY IFOSYS IN ITS IFRS IMPLEMENTATION

- Implementation IFRS not only impact account department but it impact all business process.
- The issues like, increase new risk, include change to the system, implementation of new system, modification to business process, enhance reporting requirement.
- IFRS also impact the role and responsibility of employee in organization.
- IFRS is a principle based while us GAAP is rule based system.
- It is a time consuming process and required additional resources to meet
- The shortage of IFRS trained employees and under estimation of time required.
- Lack of co-ordination between group entities, poorly defined roles and organization structures and the limited knowledge transfer.

- Failure to effectively communication between stakeholders including boards, audit committees,
- Investors and analysts.
- The IFRS also impacts the change of the retention of key employees.
- Inability to interpret the principle based standards and adopting the appropriate accounting policies.

RECOMMENDATIONS AND MEASURES FOR IFRS IMPLEMENTATION IN INDIA

- Proper education and training of employees about IFRS
- The government of our country needs to format a separate committee for IFRS process and feedback
- IFRS eliminates of multiple reporting, likewise Tata, Birla and Ambani firstly register in India and then outside India before implementing IFRS system.
- IFRS facilitate global investment opportunities inbound and outbound and also reduced cost of Capital.
- Reduce barriers to enter global market and lowered the risk associated with dual filings of accounts.
- IFRS provides new and enhanced services especially in the field of business process outsourcing (BPO) and professional services firms.
- With the help of IFRS one can conduct once-only review of financial reporting and information system for control.
- Uniform accounting standard enabled investors to understand investment opportunity as against two different set of national accounting standard.
- With the help of IFRS corporate and investors would know it's true worth because fair valuation is mandated for many balance sheet items.
- IFRS should be implementing in phased manner.
- Government needs to take serious action regarding mandatory adaptation of IFRS.
- IFRS should be added in college system as a college syllabus so that the management student could be a good IFRS expert in future.
- IFRS system should be user friendly.
- Extensive survey and research need to carry out before implementation of IFRS system.
- Identifying the areas of GAAP differences and making a decision on selection of the exemptions to be applied.
- Analyzing complex topics like Financial Instruments and drawing up the necessary disclosures.
- Identifying changes required in the existing financial reporting system to confirm with IFRS requirements.
- Identifying of effects on the existing contracts and agreements before implementing
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- Identifying of effects on the existing contracts and agreements before implementing IFRS

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CONTRIBUTION OF IMPROVED AGRICULTURAL INPUTS USE ON VEGETABLE PRODUCTION: IMPACT ANALYSIS ON VEGETABLE PRODUCERS IN ALMATA, TIGRAY, ETHIOPIA

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ABSTRACT

To examine the impact of the project intervention in the study Wereda[8] and the trend of vegetable production starting 2005 to 2010 in the study area, randomly selected respondents interviewed to gather the data. Heckman treatment effect model and descriptive statistics were estimated (used) respectively. The result of Heckman treatment effect model estimation indicated that the dummy variable known as improved agricultural inputs use, cooperative membership, market information to the vegetable producers, market price expectation, marital status and household head gender were found significant variables for the profitability of smallholder farmers in the study area. The principal hypothesis that was designed as using an improved agricultural inputs have positive effect on the profitability of the input users and in return this profitability can affect the utility of the smallholder positively was confirmed by the Heckman treatment effect estimation.

KEYWORDS

improved agricultural inputs use, Heckman, profit, smallholder, vegetable

1. INTRODUCTION AND JUSTIFICATION

Ethiopia is a country with favourable climatic condition for growing different cereals and vegetables. But irrespective of these comfortable conditions, the country suffers through different challenges typically famine as a result of recurrent drought and food insecurity due to lack of enough domestic food consumption supply (Akalu, 2007). Vegetable production can be seen as one best solution to provide food supply to the growing food, especially vegetable consumption, demand in the country (Akalu, 2007). Because the country has promising resources like land with its comfortable climatic condition, to some extent, fertile soil contents and huge unskilled but able and till trying to produce vegetable output with backward hand tool, the country can have these comparative advantages when compared to neighbouring and the rest of the world especially the middle east and Europe through producing that item at enough amount of domestic supply and of course with the orientation of export when there exist excess product than the domestic demand (Akalu, 2007)

Vegetable is a plant or part of a plant that is eaten as food; potatoes, and onions are among others. Vegetables can broadly be categorized as *Root vegetables* for example carrots, *Green vegetables* like cabbage, and *vegetables oils*. Alternatively, vegetables can also grouped as leaf, root, tuber, bulb and fruit vegetables (Fekadu, Dandena, 2006).

Vegetable crops make significant contributions to the Ethiopian households and national economy. Potato and Sweet Potato are valuable food security crops for densely populated highland regions and drought prone areas respectively. Vegetable like hot pepper and onion are also used for flavouring local dishes and as well important as sources of vitamins and minerals which indicates that a considerable proportion of Ethiopians could derive their livelihood from growing vegetable (Fekadu and Dandena, 2006)

It is evident that these type of production needs large scale capital and expertise mobilization which is of course the major bottleneck for developing countries like Ethiopia. Although Vegetable production is practiced both in commercial enterprises and smallholder farmers, the later is taking the lion's share on production and its supply to the local consumers and traders.

Smallholder vegetable producers in the study area are farmers who produce and supply their vegetable produce with the traditional farming technology and traditional marketing system with incomplete market (market price) information and low price bargaining power. As a result, contrary to the expected benefits from vegetable output, smallholders are less beneficiaries of this type of production due to lack of modern farming technologies like adopting new farming system, productive organic and chemical fertilizers, extension consulting agents, knowledge of land use management, providing market information, providing transport facilities, store, infrastructure especially road. To this regard, government intervention aiming at solving such bottlenecks of Ethiopian smallholder vegetable producers is mandatory. The public intervention aiming at contributing in poverty reduction of the rural poor through market oriented agricultural development (IPMS Team, 2004).

As explained above, vegetable production plays the major role in food security of rural Ethiopian peasants and indeed supporting to the foreign currency earnings. As faced by capital and technology constraints and of course market access which can affect the smallholders' current and future outputs, smallholder vegetable producers farm output is insignificant compared to other producers in the nation which is contrary to the prevailing domestic as well as export demand and the need of food security.

To make smallholder vegetable producers self sufficient and beneficiaries from this area, it is commonly agreed that huge amount of capital with enough technical expertise regarding to market access like market prices information and adopting new technologies are the crucial intervention areas. But it is not surprising to raise some questions about the feasibility and impacts of these types of interventions because projects are accompanied with different problems such as challenges by farmers to adopt a new agricultural technology quickly. The final goal of the interventions is scale up farmers' productivity and output so that maximize farmers profitability from producing vegetables and other agricultural produces. Hence, making interventions in a particular economic area can result either positive or negative effect to the intended beneficiaries that really needs impact assessment while, as to the knowledge of the researcher, there is no such particular an assessment. As a result, this study intends to assess the impact of improved agricultural input use introduced by the government and other local cooperatives and unions on the farmers' production.

2. OBJECTIVE OF THE STUDY

The main objective of this study is to analyze the overall effects of the government and non government stakeholders' interventions on smallholder vegetable producers in Alamata Wereda.

Specifically, the study aimed to examine whether the improved agricultural input use have socio-economic impact on smallholder vegetable producers in that particular study area.

3. REVIEW OF LITERATURE

Public support for technology adoption in the rural sector is usually defined as an agricultural extension service. For this study extension services is define as a system and a set of functions that may induce voluntary change in the rural sector. The system includes private, public and semi-public agents and the functions

[8] Wereda is a local name given to an administration unit known as district

could be transfer of knowledge, information, technologies or managerial capacity. Overall, the aim of these types of services is to provide technical education to farmers or foster the flow of information between farmers and technology providers.

The evaluation of the impact of this type of services in the last years can be divided in four groups (Gonzalez et al, 2009).

The first includes studies that analyze the effect of extension services by estimating production functions which include extension as an input. This approach, however, assumes that farms operate at an inefficient level– which is likely due to the market inefficiencies that justify public intervention – and that there is a random assignment between controls and treated groups. The latter is rarely the case given that treated producers have, on average, different characteristics from controls. Thus, the results of this type of estimations could be biased by the observable and unobservable characteristics that might affect participation and the relevant outcome variable.

The second approach tries to overcome the problems of the production function technique by controlling for the observable variables available in the data. As Heckman (1979) explains, this correction reduces the estimation bias. One alternative would be regressing the outcome variable in an improved agricultural inputs use dummy and control for the observables (assuming they are the only ones that may affect the outcome). Other alternatives include the construction of a counterfactual of the experiment by surveying non-participant farmers and compare them with the treated through matching techniques.

For example, Gebregziabher, G. (2008) evaluated the impact of access to irrigation on household income. Gebregziabher, G. (2008) presents the non-parametric matching estimates of the average treatment effect of access to irrigation on the treated (ATT) and found a significant estimation result, that is, access to irrigation have a positive effect on the overall average household income generated.

The third body of literature utilizes a panel data approach to remove time invariant unobservable (e.g., farmers' skills or efficiency). A complete impact evaluation is offered by Gautam (2000) (as cited by Gonzalez et al, 2009) for the National Expansion Project I and II programs that were funded by the World Bank in the agricultural sector of Kenya. The extension services offered included trainings for farmers and visits. This complete impact evaluation develops a fixed effects estimation finding no evidence of a significant impact of the current extension system on farmer efficiency or crop productivity. One of the most interesting conclusions according to Gonzalez et al, (2009) is that there was a need for more efficient targeting given that many treated farmers did not need the technologies or could have implemented them without funding.

Specifically, the authors utilize a fixed effects panel model and a stochastic production frontier approach. Results from both models show that having contact with the advisory services through either a visit or a training course is significant in explaining the efficiency levels of farms.

Finally, the fourth group of studies deals with the time-variant unobservable using instrumental variables. For instance, Akobundu et al. (2004) utilize measures of access to extension services as instrument for program participation given that it is not related with the income of farmers (i.e., outcome variable). They found that the program had a positive impact on farmers' income only for the case of multiple visits from technical advisors.

Overall, two conclusions can be obtained from the revision of the literature. On the one hand, the choice for the adequate estimation technique that should be used in each case depends on the available data. Absent a well-thought experimental design, the ideal scenario would imply using panel data or a good instrument to control for biases generated by observable and unobservable. Yet, this type of data is rarely available for the agricultural sector. For cross sectional data the most recommended methodology is propensity score matching, however, this technique does not control for biases generated on the unobservable. On the other hand, results of the different evaluations suggest that the direction and magnitude of the impact of extension services depends on the type of intervention, on the characteristics of the market and on the producers.

4. METHODOLOGY

4.1. DATA SOURCE AND METHODS OF DATA COLLECTION

The data which was tested against the basic hypothesis was collected mainly through questionnaire in three Tabias in the Wereda both from the improved agricultural input users and one users by employing some interviewers. Besides, important information was gathered from MoARD's extension agents and some prior documents or collected data from the same office. The questionnaire was designed to be more closed type questions so that it enables to have specific answers to the specific research objective.

The sampling procedure is principally made based on the researcher's disposal on time and financial budget. The Wereda has fifteen Tabias. Of these, five Tabias are located in the highlands of the surroundings known as 'Dega' climate setup where the experience of vegetable production is uncommon. Ten Tabias are the low land 'Kola' climate environment part of the Wereda where vegetable production is commonly practiced.

As a result, of these ten Tabias, where this type of production is adapted by farmers in that Wereda, three Tabias namely, 'Gerjele', 'Tumuga', and 'Kulu Geze Lemlem' were selected using probability sampling technique. From 80796 or (17,564 household) (WBOA, 2009) total population of the rural inhabitants, 5800 households were using the improved agricultural inputs in their vegetable production and the remaining households of these rural Tabias were not using such inputs. Here, 150 population size was equally divided to the participant and non participant. (See Table 1)

As shown in Table 1, 25 sample respondents from both improved input users and non users were taken which was done using random sampling. Weights for both input users and non users were calculated as shown in the last row in the table 1 so that STATA can correct the proportion of the sample population which can make the sample a representative one.

4.2. METHOD OF DATA ANALYSIS

In many of the less developed agrarian economies the agricultural productivity is extremely low. Clearly, increasing agricultural productivity is critical to economic growth and development.

One important way to increase agricultural productivity is through the introduction of improved agricultural technologies and management systems. National research programs are activating in most countries, in Ethiopia named as Ethiopian institute of agricultural research, working with a network of international centers operating under the auspices of different international and local research institutions. These research institutions have worked to develop new agricultural technologies and management practices. A challenge for agricultural researchers, however, is to understand how and when new technologies are used by farmers in developing countries.

Over the years, researchers have worked to answer challenging questions about agricultural technology adoption. Initially, policy makers and researchers sought simple descriptive statistics about the use and diffusion of new seed varieties and associated technologies such as fertilizer and irrigation (Yohannes 1993, Doss, 2003). Concerns arose later about the impact of technology adoption mainly focusing on commodity production, on poverty and malnutrition, on farm size and input use in agriculture, on genetic diversity, and on a variety of social issues.

For further decision whether to introduce and diffuse new technology or not, impact assessment is important/mandatory then. Transforming the production culture in the study area is to mean increasing smallholders' income from their produce. The smallholder maximizes utility given the income at which income is the profit of the smallholder's production activities (own production) and off-farm employment (Ravalion, 2001)

Here, the study adopt smallholder profit maximization with the assumption that utility is an increasing function of profit with fixed capital and labour resources. For this concept, the researcher express the following functional relationships between utility and profit as below:

$$\pi_i(P_j, V_j, C_{iy,} C_{jx}, C_{it}) = \underset{xi \quad yi}{Max}\left(P_iV_i - W_iX_i - C_{iy}Y_i - C_{ix}X_i - C_{it} : T_j(X_i, Y_i, Z_i), P_j > 0, V_j > 0\right)$$

……………………………………………… (1)

Where P_i vector of output prices of smallholder i, V_i vector of variable input prices of smallholder, and C_{iy}, C_{ix}, C_{it} are vectors of transaction costs for output, variable inputs and fixed transaction costs respectively.

Again, Y_i, X_i and Z_i are vectors of output, variable inputs, labour and capital for smallholder j. T(.) is the state of technology smallholder j.

From equation (1) the study can show the following terms as:-

$$P_i = P_i(K, H, L)......................(2)$$

$$V_j = V_i(K, H, L)......................(3)$$

$$C_{jy} = C_{iy}(K, H, L)...................(4)$$

$$C_{jx} = C_{jx}(K, H, L)...................(5)$$

$$C_{jt} = C_{jx}(K.H, L)...................(6)$$

Where K_j, H_j, L_j Represents vectors of smallholder characteristics, vectors of project intervention and aggregate benefit accrued to smallholder j due to access to markets, credit, and transport services respectively. From those identifications, equation (1) can be written as:

$\pi_i(K, H, L)........................(7)$, which represents the reduced form of the profit equation. For the sake of capturing the impacts on smallholder profit through increasing income as a result of the intervention in the Wereda, the study has used Heckman treatment effect estimation method.

The main justification to apply the treatment effect model which is similar to Heckman two step model, as Heckman two step model overcomes the problems of linear regression (OLS) model of self selection bias, was to avoid the input use decision bias that could be affected through self selection bias where the estimation of linear regression model cannot correct this self selection bias and there by the estimated parameters become inconsistent and wrongly interpreted.

Further, the study chooses this model than the propensity score matching where again the sample size matters. Propensity score matching have the ability to correct the self selection bias by searching and matching the best matches of the respondents with having common support observable characteristics which may need, if not lucky enough, large amount of sample size.

The Heckman treatment effect model is applied by using two groups as smallholders using inputs(treatment) and smallholders not using improved inputs while both sharing similar observable characteristics. The mean effect (profit) of treatment is calculated (Ravalion, 2001) as the average difference in profitability between the treated and control group.

Let $D_j \in (0,1)$ indicates whether the smallholder j was using improved input from the intervention or not; that is, 1 if participating, 0 otherwise.

The profit can also be defined as $\pi_{(D_j)}$ for smallholder at which j=1, 2….N where N is indicating the total population (Sample size), in this case, 150 number of respondents

The effect (profit) of smallholder j participation then is going to be calculated as:

$$E_{i} = \pi_{i(1)} - \pi_{i(0)}...............................(8)$$

However equation (8) cannot observe the smallholder's j profitability had she/he not using the improved input (Ravallion, 2001) and selection bias can result inconsistent parameter coefficient estimation.

Selection problems are pervasive in applied micro econometric research. For instance, a profit of improved input use, in this case, is observed only for those individuals who use the input while the profit of the non-users is not. Here the selection problem can be viewed as a problem of missing observations. Using Heckman treatment effect model can minimize such incidences because Heckman's approach to the selection problem is closely linked to economic theory. His key insight is that observations are often missing because of conscious (self-selection) choices made by economic agents (the decision to use improved agricultural inputs in this case).

In the regression context, self-selection bias occurs when one or more explanatory variables are correlated with the residual term of outcome equation or selection bias arises because the "treatment" was correlated with the error term in the outcome equation because the residual captures the effects of all omitted and imperfectly measured variables. Thus any explanatory variables that are correlated with the unmeasured or incorrectly measured factors will end up proxying for them where if any explanatory variable ends up proxying for those factors, its estimated coefficient cannot be directly interpreted as the effect of that explanatory variable for each, since it also captures part of the effect of the omitted or incorrectly measured variables.

The well-known Heckman correction (also called the two-stage method) has become part of the standard toolbox in applied micro-econometric work. The method may be described by means of the following two equations.

Profit equation:

$$\pi_{1i} = X_{1i}\beta_1 + \varepsilon_{1i} \text{ -- (9)}$$

Improved agricultural input use equation:

$$e^* = X_{2i}\beta_2 + \varepsilon_{2i} \text{ -- (10)}$$

Where Equation (9) determines the individual $i's$ profit (output equation), whereas (10) is a "participation selection equation" describing the individual's propensity to improved input use. Hence, π_i is the observed profit for improved agricultural input user individual i if she/he used inputs and e^* is a latent variable that captures the propensity to input use, X_{1i} and X_{2i} are vectors of observed explanatory variables, such as age and education, household size, distance from the market, etc; ε_{1i} and ε_{2i}, are mean-zero stochastic errors representing the influence of unobserved variables affecting π_i and e^*_i. The parameter (vectors) of interest are β_1 and β_2. Although the latent variable e^*_i is unobserved, it can be defined as dummy variable $e_i = 1$ if $e_i^* > 0$ and $e_i = 0$ otherwise; it thus can be observed the positive net profit only if $e_i = 1$, that is, if the individual used improved agricultural inputs. Here it is likely that the unobserved terms ε_{1i} and ε_{2i} are negatively correlated; that is, individuals with higher propensity to input use, given the characteristics X_{1i}

and X_{2i}, are presumably also more likely not to input. If this is true, the sample of individuals observed as participants will not accurately represent the underlying population, even in a large sample. Failure to correct or recognize this selectivity problem generally produces inconsistent estimates of the parameters in the net profit equation.

Here assuming the basic assumptions, specifically saying that, $\varepsilon_{1i} \sim \mathrm{N}(0,1)$ and $\varepsilon_{2i} \sim \mathrm{N}(0, \delta^2)$, that is, the error terms, ε_{1i} and ε_{2i}, are assumed to be bivariate, normally distributed with correlation coefficient (ρ), the conditional mean of ε_{1i} can be written as:

$$E(\varepsilon_{1i} / e_1^* > 0) = E(\varepsilon_{1i} / \varepsilon_{2i} > -X_{2i}\beta_2) \text{......... ....} (11)$$

Where equation (11) is indicating the mean error term given the farmer is using the improved agricultural inputs. And hence it can be put as:

$$E(\pi_i \mid \mathrm{X}_{1i}; \mathrm{e}_i = 1) = \mathrm{X}_{1i}\beta_1 + \mathrm{E}(\varepsilon_{1i} \mid \varepsilon_{2i} > -\mathrm{X}_{2i}\beta_2) \text{.......................................} (12)$$

Where Equation 12 shows the average treatment effect (average profit of using improved agricultural inputs) which is the result of the differences in profits when the farmer is using the input and when she/he is not. Thus, the regression equation on the selected sample depends on both X_{1i} and X_{2i}. Omitting the conditional mean of ε_{1i} biases the estimates of β_1 (unless ε_{1i} and ε_{2i} are uncorrelated, in which case the conditional mean of ε_{1i} is zero). Selection bias can thus be regarded as a standard problem of omitted-variable bias. The problem is to find an empirical representation of the conditional mean of ε_{1i} and include this variable in the profit equation.

Assuming that ε_{1i} and ε_{2i} are drawn from a bivariate normal distribution, the regression equation can be derived:

$$E(\pi_i \mid \mathrm{X}_{1i}, \mathrm{e}_i = 1) = \mathrm{X}_{1i}\beta_1 + \rho\delta_1\lambda_i \text{..} (13)$$

In equation (13) ρ is the correlation coefficient between ε_{1i} and ε_{2i}, δ_1 is the standard deviation of ε_{1i}, and, λ_i – the inverse of Mill's ratio(hazard lambda), sometimes called a "control function" or estimated expected error - literally a function that controls for selection bias , can be also given as by

$$\lambda_i = \frac{\phi(X_{2i}\beta_2 \mid \delta_2)}{\Phi(X_{2i}\beta_2 \mid \delta_2)} \text{......... ....} (14)$$

Where λ_i is derived from the partial derivation of the inverse mills ratio with respect to, δ_2, the standard deviation of ε_{2i}, where ϕ and Φ are the density and distribution functions of the standard normal distribution respectively.

As shown in the Scientific Contributions of James Heckman and Daniel McFadden (Bank of Sweden, 2000), Heckman treatment effect procedure is conceptually as follows:

The first step involves estimating the parameters in equation (10) or the input use equation by the probit method, using the entire sample. These estimates can then be used to compute λ_i, for each individual farmer in the sample. Once λ_i is computed, the study can estimate equation(13) over the sample of input users by ordinary least squares (OLS) regression, treating $\rho\delta_1$ as the regression coefficient for λ_i. Here STATA provide the potion that calculates the treatment effect procedure at a time using the 'two-step treat' syntax. The sign of the selection bias depends on the correlation between the errors in the profit (outcome equation) and input use equations 'ρ' and the correlation between λ_i and the variables in the profit equation X_{1i}. Since λ_i is a decreasing function of the probability of sample selection, it follows that the β-coefficient on variables in X_{1i} that are likely to raise both profits and input use, such as education, will be biased downwards if the Heckman selection correction technique is not applied(provided ρ > 0).

5. RESULTS AND DISCUSSION

5.1 VEGETABLE PRODUCTION TREND IN THE WEREDA

Many types of vegetables could easily be grown in the study area because there is conducive climate and easy access to water. Among these vegetable the culture of growing pepper has a longer history in the area. As a result, farmers have developed own systems (IPMS, 2005)

Table 2 is the data from the documentations from the Wereda Bureau of agriculture and rural Development.

The limited expansion of vegetables in the pilot learning Wereda, according to the IPMS diagnosis 2005, has a lot to do with problems related to the development of water harvesting technologies (ponds and wells) and small scale irrigation schemes (river diversion, streams from the swampy area).

Currently the marketing of vegetables is done on individual basis. Since farmers harvest vegetables at about the same time, prices fall significantly at harvest (IPMS, 2005).

Table indicated that starting from the 2005, total production decrease continuously this might be due to the perishable nature of the product and the discouraging price at the harvest season. Cash liquidity problems, including repaying their loan they have taken from different source of loan, forced farmers to sale their output at the same time.

Pepper product indicated some fluctuations in output. It declines at the beginning and continues declining till to the production period of 2007, then rise up to some extent in the year 2008, and finally the last survey in the 2010 indicated a decline in the output.

Unlike the two vegetable outputs, onion indicated encouraging output. Though there was some output decline in the years 2006 to 2007, starting from the harvest season of 2007 registered a promising result. There is rapid output growth in the years between 2007 and 2008. When we see the production of 2008 to 2009, there was also output decline may be due to the then unbalance rainfall in the area. In the 2009/10 harvest season, the line-chart shows again a rapid output rise may be due to the product price rise and to some extent a balanced rain fall in the area.

Finally, number of producers using the improved agricultural input increases from 2005 to 2007; but, we see that the improved agricultural inputs use trend declined in the years 2008 and 2009 production seasons where the trend increased in the year 2010.

Because these vegetable products consume large amount of water where the farmers' water source for irrigation is partly the rain fall and river diversion, the balanced rain fall may be become the significant factor for the participation of farmers in this package.

5.2 IMPACT ON IMPROVED AGRICULTURAL INPUT USERS

To examine whether smallholder farmers are benefiting from using improved agricultural inputs where the improved agricultural inputs comprises of new agricultural farming technology sets, smallholder's utility maximization function is used to examine the impact of the input use. In my case, the new agricultural farming technology sets which are provide by the government intervention were use of improved seeds, farm technology like planting (spacing), supporting the vegetable (for Tomato), provision of pesticide, training on post harvest output management and provision of output market information from the project extension agents. For this study, improved agricultural input users are defined as those farmers who adopt at least one of the technology sets which are indicated above. Using these new agricultural technologies, the smallholders in the study area are expected to maximize their utility as where utility is assumed an increasing function of agricultural output profits. The agricultural output profits can be realized through producing varieties of farm outputs. To come up with the study's main concern here, sources of agricultural output profits are profits from vegetable (where vegetable in this case is Onion, Tomato, and Pepper) produce using at least one of the technology sets (improved agricultural input users profit from vegetable) and profits from vegetable produce without using improved agricultural inputs. The net profit is a continuous value which is the explaining factor to the utility of the smallholder. Heckman treatment effect is estimated to see the effect of improved agricultural input use. In the second stage of the two step treatment effect estimation, the control function, hazard lambda is included. That means the outcome equation estimation estimates the ordinary least square estimation(the second step estimation) where STATA software package results consistent and asymptotically normal estimators for the parameters in the outcome equation and consistent variance estimator or corrected standard errors automatically (Heckman 1979).

As shown in Table 3, the hazard lambda which is similar to inverse Mills ratio estimated as selection bias equation is significant at 10 percent level of significance showing the existence of selection bias. The selection equation taking the input use dummy variable estimated the probit regression for participation. Here, pre treatment variables are taken for the input use decision.

IMPROVED INPUT USE: as indicted in Table 3, smallholder farmer adopting at least one of the new agricultural technologies is better profitable than the ones who do not. The estimated coefficient of the input use dummy variable revealed that the null hypothesis which states using improved agricultural inputs does have zero effect on the profitability of a smallholder is rejected at 10 percent level of significance. Smallholder farmers taking at least one of the technology sets are able to enjoy the government and nongovernmental institutions intervention. Particularly speaking, the use of modern seeds, farm technology like planting (spacing), supporting the vegetable (for Tomato), protection from damage the vegetable using chemicals, post harvest output management, training were enabling farmers using the improved input better profitable than households who do not use these types of interventions.

Though the main interest of this study is to see the impact of those technology variables, in the treatment effect estimation, the result shows that cooperative membership is significant at 10 percent level of significance. This could probably be farmers who have the exposure to be member of any association may be familiar to the new innovations made at their surroundings. Besides, their association may help them on how to produce and sale their produce

Market information provided by the extension agents is another factor for profitability of the smallholder farmer. The result shows the alternative hypothesis is accepted at 10 percent level of significance where the estimated coefficient in Table 3 was indicating the variable for market information was positively and significantly affecting the profitability of a smallholder in the study area.

In reality, farmers expect their future earnings where these future earnings are dependent on different circumstances. Market price expectation of their output is among the various conditions that may have an influence on the farmer's productivity and thereby profitability. The finding of this study indicated that market price expectation has significant effect on net profit gain of the participants (at P-value <0.1; which indicates that the farmers who expect higher future price of their output were motivated to produce more marketable vegetable better than the ones who do not. This price expectation may help the smallholder farmers to be more productive and produce quality output in return help them to enjoy the market as well as the just price in their locality.

Current Marital status and household head gender were other factors that can affect the profitability of a smallholder vegetable producer. Here, the null hypothesis for these variables was rejected at 1percent and 5 percent level of significances respectively. The acceptance of the alternative hypothesis for the farmer being couple is more profitable than the single ones may be due to the resource sharing of the household. Husband can be devoted and exert all the time he has for caring and treating the vegetable production than the single ones because the remaining household tasks in the former case can be covered by his wife (since a woman is responsible in activating tasks at home). Male headed household is profitable than the women headed household may due to the farm distance in that study area which can require energy. Besides, male may have more exposure to market and all farm activities than women.

6. CONCLUSIONS

From the estimation to examine the impacts of using improved agricultural inputs on vegetable producers in study area, I concluded the following issues.

The Heckman treatment effect estimation result indicated that the improved agricultural inputs use dummy variable taken as dependent in the selection estimation and simultaneously as explanatory variable in the outcome equation is significant at 10% level of significance both in the selection equation and outcome equations. This result revealed that the new agricultural technology set have an impact on the profitability of the smallholder vegetable producer. Such agricultural intervention helps the smallholder's profitability. Because there is fertile land, huge underground water potential and culturally vegetable production is accustomed as the local consumption for food. Unlike these realities in the area, before the intervention, farmers producing vegetable in the study area were not as such profitable from vegetable production and thereby were not motivated to produce vegetable surplus than their direct consumption. Thanks to the intervention by stakeholders, the technical and other all rounded supports provided to the farmers brigs the farmers familiar with markets and benefits of vegetable production and of course the use of the improved agricultural inputs made the farmers more profitable than the ones who do not use.

Apart from its main interest here, the study found that, though not significant, age affects to the profitability of the smallholder negatively. For this regard, it can be concluded that younger farmers were more profitable than the older ones because besides the conservative behaviour of the older farmers, the younger ones were more active in the market interactions and farming activities than the older ones and as a result they were more profitable. Market information provided to the farmers, cooperative or any association membership, farmers' output market price expectation variables were both significant at 10 percent level of significance indicating positive effect on profitability of the smallholder vegetable produce. The dummy variable asked if the family head is coupled or not was significant at 1 percent level of significance showing that married farmers were more productive than the single ones, may be due to household resource sharing and allocation efficiency. Gender had also another contribution to profitability. Male sex variable is significant at 5 percent level of significance which can in broad be concluded as men were more energetic and productive than female. The frequency male visit to the farm and treat the vegetable may also be another factor of their profitability than women.

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TABLES

TABLE 1: THREE 'TABIAS" INPUT USERS AND NON USERS POPULATION AND SAMPLE TAKEN

Name of Tabia	Non users household size	Sample taken	users Household size	Sample taken
Gerjele	1059	25	522	**25**
KuluGeze Lemlem	562	25	277	**25**
Tumuga	1411	25	695	**25**
Sub Total	3032	75	1494	**75**
Total sample population		**150**		
Weight	Weight of input users= 1494/75		**19.92**	
	Weight of non users =3032/75		**40.43**	

Source: Own calculation from sample survey data (2010)

TABLE 2: ANNUAL INCOME FROM VEGETABLES PRODUCTION AND USERS TREND IN THE WEREDA

	2005	2006	2007	2008	2009	2010
Onion	17217.7	14446.98	10458	70780	65217.96	**119871**
Tomato	10856	6466.76	12070	13304	8030.5	**2504.2**
Pepper	6094	1084.32	1529.2	1073.6	2233.57	**924.2**
Users	**426**	**1205**	**4912**	**3892**	**3343**	**5800**

Source: Documentation: Alamata Wereda Bureau of Agriculture and Rural Development, 2010

TABLE 3: TREATMENT-EFFECTS MODEL -- TWO-STEP ESTIMATES

Variables	Coef.	Std. Err.
Outcome equation: Continuous dependent variable (Net profit)		
Respondent's age	-20.39113 (0.923)	211.5391
Respondent's Education level	607.6945 (0.454)	811.0818
Farming Experience of the farmer	256.6872 (0.753)	814.2511
Household Land holdings size	1800.927 (0.273)	1642.924
Market information by extension agents	5739.669 (0.091)	3399.467
Cooperative membership of farmer	7135.042 (0.082)	4096.946
Experience of employing man labour	3797.118 (0.523)	5944.355
Farmer's output market price expectation	6341.895 (0.060)	3367.31
Household Oxen ownership for farm	417.9894 (0.790)	1570.86
Current Marital status (couple=yes, single=no)	44209.61 (0.000)	9913.212
Household head gender	22563.88 (0.010)	8795.217
Improved agricultural input use	18860.16 (0.050)	9634.253
Constant	-41259.58 (0.008)	15547.9
Dummy dependent variable for Improved input use selection bias equation		
Respondent's age	0.0078915 (0.637)	0.0167159
Respondents Education level	0.0153433 (0.814)	0.0653304
Current Marital status (couple=yes, single=no)	-0.8678923 (0.208)	0.688941
Household Oxen ownership for farm	0.1133201 (0.354)	0.1223032
Comparison of technology sets	0.4076394 (0.151)	0.2838772
Equal access of the project to all farmers	0.3212764 (0.264)	0.2874741
Household Land holdings size	0.3638681 (0.000)	0.1013288
Different sources water for irrigation	1.286454 (0.000)	0.3627506
Constant term	-3.905218 (0.000)	1.089756
hazard lambda	-10276.58 (0.083)	5921.017
rho	0.55279	
sigma	18590.532	
lambda	10276.584	5921.017

Source: Own survey result (2010),

Number of obs = 150, Wald chi2(17) = 129.24,
Prob >chi2 = 0.0000, P>|z values are in brackets

IMPORTANCE OF INNOVATION FOR SME GROWTH: EVIDENCE FROM ALBANIA

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ABSTRACT

History has amply demonstrated that innovation in the public and private sectors is the most important key to long-term prosperity and economic competitiveness. A recent OECD study using innovation surveys for 21 countries showed that firms receiving public support for innovation, invest 40% to 70% more than those that do not. Also, higher levels of firms' investment in innovation lead to higher innovation sales and productivity. Especially in countries in transition, they face a number of obstacles: administrative barriers, limited access to nonce, lack of technology, entrepreneurial skills. Yet, these days Albania represents a deficit in innovation, with a poor performance, which becomes a handicap for the competitiveness of its enterprises. It ranks 123 out of 142 in Global Competitiveness Report 2011-2012. This puts in risk the competitiveness (ranked 78th out of 142 countries) and sustainability of economic growth and employment. However, Albania is ranked 62nd in terms of technological capacity. The purpose of this paper is to serve as a basis for discussion about the reasons why Albanians SME need to invest in innovation and on the key priorities for action to support innovation in Albania and to identify initiatives where these organizations can help catalyze change to go forward.

KEYWORDS
innovation, Albanian SMEs, development of SMEs, growth.

1. INTRODUCTION

History has amply demonstrated that innovation in the public and private sectors is the most important key to long-term prosperity and economic competitiveness. A recent OECD study using innovation surveys for 21 countries showed that firms receiving public support for innovation, invest 40% to 70% more than those that do not. Innovation is important on different levels and is also important for different reasons. For nations, (and regions) innovation is an important driver of economic growth and improvement. For firms, there are a number of' reasons, including survival, growth and shareholder return. A major topic in the innovation literature is the importance of SMEs for innovation. Studies have shown that SMEs contributed to the main innovations of the twentieth century (Oakey, et al., 1988; Rothwell, 1994). SMEs have some advantages because of their size. Many are flexible and have strong relationships with customers, enabling rapid response to technical and market shifts. Small and medium-sized enterprises (SMEs) dominate Albania's economy, representing 99.6% of all registered businesses. The share of the SME sector in GDP is about 73%and the sector covers approximately 71% of all employees. SMEs in Albania concentrate on the local market and lack export competitiveness.

This article starts by explaining the importance of innovation and the definition of it. Then, the article discusses about the innovation development within SMEs, the problem and needs. In the following part, we will discuss more briefly about some areas that have a specific relevance to the small and medium enterprises (SMEs) in Albania, which are known as the best way to lead an economy by using innovation as their primary tool to challenge the changing environment. The last section the article presents the performance of innovation in Albania.

2. IMPORTANCE OF INNOVATION

Innovation is important on different levels and is also important for different reasons. For nations, (and regions) innovation is an important driver of economic growth and improvement. For firms, there are a number of' reasons, including survival, growth and shareholder return.

According to Baumol (2002) virtually all of the economic growth that has occurred since the eighteenth century is ultimately attributable to innovation. Long-run economic growth depends on the creation and fostering of an environment that encourages innovation. Also according to Economist Intelligence Unit 2007 ''Innovation is considered an important driver of long- term productivity and Economic growth. It is argued that countries that generate innovation, create new technologies and encourage adoption of these new technologies grow faster than those that do not''.

Why do we say that innovation is important? There are a number of surveys that have recently been published which confirm this. For example, respondents to The Boston Consulting Group for their report "Innovation 2010. A Return to Prominence – and the Emergence of a New World Order" ranked innovation as a strategic priority with 26% citing it as a top priority and a further 45% ranking it as a top three priority. Research undertaken by McKinsey during 2010 supports this with their survey reporting that '"84 percent of executives say innovation is extremely or very important to their companies growth strategy."

3. DEFINITION OF INNOVATION

Innovation is considered as an essential component of the enterprise (Covin and Miles) and a key element of business success (Nonaka and Takeuchi, 1995). In simple terms, innovation involves the exploitation of new ideas. Innovation is often confused with invention. Freeman (1982), however, makes clear the distinction, when he notes: "an invention is an idea, a sketch or model for a new or improved device, product, process or system", whereas "an innovation in the economic sense is accomplished only with the first commercial transaction involving the new product, process, system or device". The OECD (1981) expand this assertion, by proposing that "innovation consists of all those scientific, technical, commercial and financial steps necessary for the successful development and marketing of new or improved manufactured products, the commercial use of new or improved processes or equipment or the introduction of a new approach to a social service. Research and Development is only one of these steps" (Nelly, 2009). According to Schumpeter (1934), pioneer in innovation research, has identified various forms of innovation, including products, processes, market and organizational innovation. He includes five manifestations of innovation in its definition:

1. Creation of new products or qualitative improvements in existing products

2. Use of a new industrial processes
3. New market openings
4. Developing of new raw-material sources or other new inputs
5. New forms of industrial organisations

The influence of the Schumpeterian vision of innovation persists to this day and can be seen in the European Commission's Green Paper (1995) on innovation that defines it as *"…renewal and enlargement of a range of products and services and the associated markets, the establishment of new methods of production, supply and distribution, the introduction of changes in management, work organisation and the working conditions and skills of the workforce"* and in Edquist's (2001) summary description of innovations as new creations of economic significance normally carried out by firms (or sometimes by individuals).

In the following part, we will discuss more briefly about problems and needs for development of innovation in SMEs.

4. INNOVATION DEVELOPMENT WITHIN SMEs

A major topic in the innovation literature is the importance of SMEs for innovation. Studies have shown that SMEs contributed to the main innovations of the twentieth century (Oakey, et al., 1988; Rothwell, 1994). SMEs have some advantages because of their size. Many are flexible and have strong relationships with customers, enabling rapid response to technical and market shifts. Small firms usually have good internal communications and many have a dynamic and entrepreneurial management style (Rothwell, 1994). As well, some studies suggest that the average capability of technical people is higher in small firms and that innovations in these firms can be less expensive (Cooper, 1964). SMEs usually explore new technical spaces. In summary, innovation in small firms can be (more) efficient and effective (Vossen, 1998). On the other hand, many SMEs are not innovative at all. Researchers have stressed the differences between a limited number of very innovative small firms and a large number of non-innovative firms (Acs and Yeung, 1999; Hadjimanolis and Dickson, 2000) Many obstacles to innovation in SMEs are also stressed in the literature. The lack of financial resources, inadequacy of management and marketing, lack of skilled workers, weakness in external information and linkages, and difficulty in coping with government regulations are factors that limit their competitiveness (Buijs, 1987; Freel, 2000; Rothwell, 1994). SMEs may be unable to exploit new products because of the limited organizational and marketing capabilities. Other studies discuss cultural barriers to innovation, such as reluctance to change, tendency to ignore procedure, focus on short-term requirements, lack of strategic vision and the diffusion of a blame culture (Filson and Lewis, 2000; Freel, 2000). SMEs' main problems are due particularly to the scarce attention devoted to organizational and managerial problems especially in the field of innovation (Cobbenhagen, 1999).

In the following part, we will discuss more briefly about some areas that have a specific relevance to the small and medium enterprises (SMEs), which are known as the best way to lead an economy by using innovation as their primary tool to challenge the changing environment.

5. CHARACTERISTICS OF SMES IN ALBANIA

Small and medium enterprises are the engine of the economy. They are an essential source for the creation of new jobs; entrepreneur and innovation spirit, and have a crucial importance for increasing competitiveness. Small and medium-sized enterprises (SMEs) dominate Albania's economy, representing 99.6% of all registered businesses. The share of the SME sector in GDP is about 73%and the sector covers approximately 71% of all employees. SMEs in Albania concentrate on the local market and lack export competitiveness. Less than 1.3% of the small and less than 5.3% of the medium companies in Albania have undertaken joint ventures with foreign partners over the last three years. SME development in Albania is below regional average. The main challenge remains the relatively poor investment climate. Poor law enforcement, very weak corporate governance (both at the macro and at the enterprise levels), lack of management skills and poor infrastructure constitute the major impediments to SME development. SMEs in Albania are classified according to the number of their employees and turnover and/or balance sheet in compliance with the law nr. 1042 (22/12/2008) on small and medium-sized enterprises:

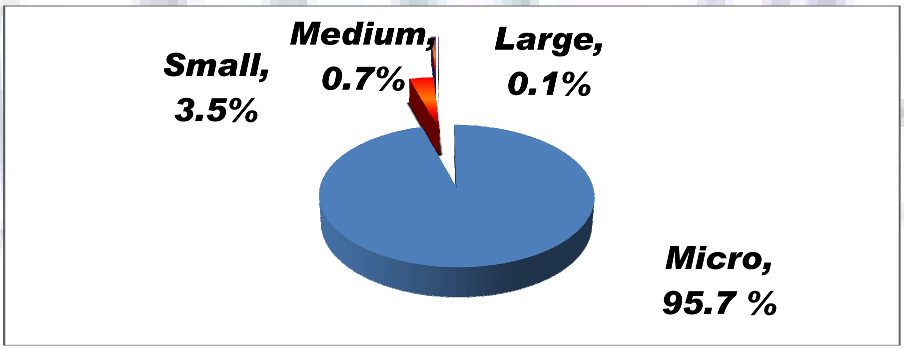
FIGURE 1: SMES DEFINITION IN ALBANIA

Micro and Small Enterprises	Medium Enterprises
By number of employees Micro enterprises: 1-9 employees. Small enterprises: 10-49 employees**.**	**- By number of employees** Medium enterprises : 50-249 employees;
- By annual turnover Micro enterprises: Annual turnover can't exceed the sum 10 mil leke. Small enterprises: Annual turnover can't exceed the sum 50 mil. lekë	**- By annual turnover** Annual turnover can't exceed the sum 250 million leke.
- By form of ownership 100% of capital must be owned by individuals	**- By form of ownership** Less then 25 % of capital can be owned by enterprises which are not classified as SME.

The EU definition of small and medium-sized enterprises consists of firms that employ fewer than 250 people, and have an annual turnover not exceeding EUR 50million and/or a balance sheet total not exceeding EUR 43 million. The Albanian definition is not perfectly consistent with the EU one.

According to data from INSTAT (2010:1), the share of SMEs is 99,9% of the total number of companies in 2009. SME contribution to exports in the year 2009 was approximately 69%. (33% from medium enterprises, 22% from small enterprises, and only 14% from micro enterprises). Referring to their structure, active enterprises for 2010 are as follows: micro enterprises with 1 to 9 employees make up 95.7% of the total active enterprises, small enterprises with 10 to 49 employees cover 3.5%, and medium enterprises with 50 to 249 employees 0.7% and only 0.1% of the total number are large enterprises with more than 250 employees.

FIGURE 2: THE DISTRIBUTION OF ACTIVE ENTERPRISES BY SIZE IN ALBANIA



Source: INSTAT 2011

Total number of active enterprises: 100,687

- Micro (1-9) – 95.7 %
- Small (10-49) – 3 ,5%
- Medium (50-249) – 0.7 %
- Large (+250) – 0.1 %

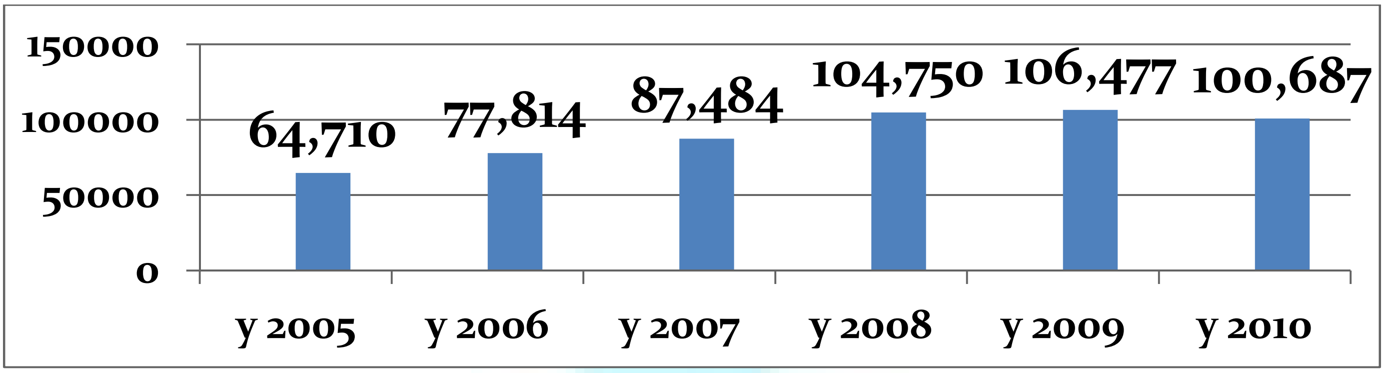
62% are self-employed

New enterprises 2011 12,706

- 5% less active companies compare 2009
- 3,1% increased the number of employee compare 2009

Referring to the INSTAT data (INSTAT, 2011:3), the number of active enterprises 13 till the end of 2010 reached 100,687; which indicated a very slight increase by 1% compared to 2008. The new enterprises created during 2010 are 16,443 (NRC, 2011). The number of employees in non agriculture private sector during 2009 decreased by 0.9% compared to the previous year, while the number of employees during 2010 increased by 3.1%. Birth rate of new enterprises for 2010 is 16% higher compared to 2009. In the following table are shown active enterprises by their year of creation. From 2005 to 2009, enterprises in Albania increased by approximately 55%.

TABLE 1: ACTIVE ENTERPRISES DURING THE YEARS

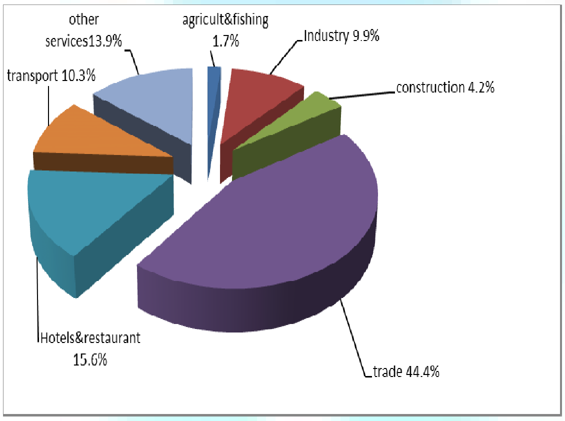


Source: INSTAT 2011

Micro companies dominate the Albanian sector SMEs in numbers, turnover and total value added. However, Small and Medium Enterprises are becoming more productive and economic efficiency increases with the size of the undertaking.

From a sectored perspective, SMEs are concentrated in the retail sector. Trade and services sectors are dominated by micro and small enterprises, while industry and construction sectors are dominated by medium-sized businesses.

FIGURE 3: THE SPREAD OF ACTIVE ENTERPRISES BY ECONOMIC SECTORS IN ALBANIA



Source: INSTAT 2011

The spread of SMEs according to economic sector:

- Trade – 44.4%
- Industry – 9.9%
- Hotels, coffees, restaurants – 15.6%
- Transport and communication – 10.3%
- Other services – 13.9%
- Construction – 4.2%
- Agriculture and fishing – 1.7%

6. DEVELOPMENT OF TECHNOLOGY AND INNOVATION FOR SMES FOUND OF INNOVATION

Albania has registered a rapid growth in the number of enterprises, a fact which indicates a high degree of entrepreneurial desire instead. Yet, weaknesses persist as regards the provision of support to Small and Medium Enterprises (SME), innovation policy and environmental standards. There was no progress with approval of legislation related to regulatory impact assessment. There was some progress on implementation of the Business Innovation and Technology Strategy. An Innovation Fund of approximately € 285,000 has been established for 2011-2014. The Albanian Investment Development Agency has been fully staffed and its board adopted the regulation for the implementation of the Innovation Fund. CDM No. 104, dated 9.2.2011 was passed Strategic Programme for Innovation and Technology Development for SMEs, and the Action Plan for the period 2011 to 2016, which aims to:

- Assistance to companies in the process of innovation, improving technological capacities;
- Implementation of a proactive policy of innovation;
- The creation of an innovation system to increase interoperability in enterprise support institutions;
- Filling a gap and creating a better connection between SME development policy with that of science and technology.

Strategic program being implemented by the government is focused on four key areas: 1) Innovation Fund; 2) Services for business innovation; 3) business incubators program; 4) program for the development of clusters;

The innovation fund is created by CMD No. 667, date. 28.09.2011 for the 4 years. The grant by 12 mil. Lek/year. Innovation Fund to provide assistance in the form of direct subsidies, micro, small and medium-sized, up to **400,000 lek**. Depending on the assessment for the project submitted by the applicant. The scheme covers from **30% to 50%** of eligible costs of the project. Argue that assistance through the Innovation Fund will help increase economic activity beneficial to the development of Technology and Innovation for SMEs.

There was little progress in the field of enterprise and industrial policy instruments. Measures to facilitate access to finance for SMEs continued under the Credit Guarantee Fund for SMEs and the European Fund for South-East Europe. Implementation of the credit support scheme financed by the Italian government continued, with preparations being finalized for a second phase of the scheme covering the period 2012-2014. According to Europe Commission for Albania 2012 report progress some measures were taken to facilitate access to financing for SMEs and to improve the regulatory framework for doing business. Overall, preparations are moderately advanced.

7. INNOVATION PERFORMANCE IN ALBANIA

Yet, these days Albania represents a deficit in innovation, with a poor performance, which becomes a handicap for the competitiveness of its enterprises. It ranks 123 out of 144 in Global Competitiveness Report 2012-2013. This puts in risk the competitiveness (ranked 78th out of 144 countries) and sustainability of economic growth and employment. However, Albania is ranked 62nd in terms of technological capacity.

In the Global Competitiveness Report 2012-2013, Albania is listed as a country in Stage 2 of development in the terms competitiveness. This indicates that the country is an efficiency-driven economy characterized by “efficiency enhancers” such as higher education and training; goods market efficiency, labor market efficiency, financial market development, technological development and market size. However, it still lacks the innovation and sophistication factors that characterize the Stage 3 innovation-driven economies.

Albania has not yet reached the innovation-driven stage in which companies must compete by producing new and unique products using sophisticated production processes and innovation. According to the World Bank Report on Building Competitiveness in Albania (2009), private companies ’“technological capacity” to upgrade by absorbing existing advanced technologies is weak.

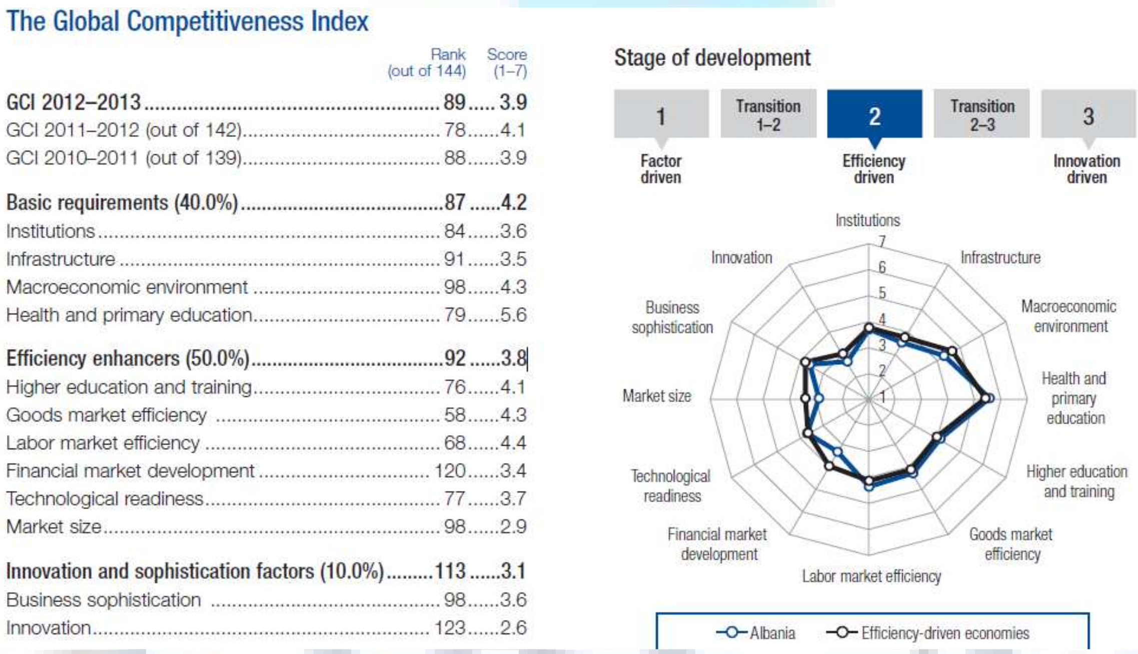
Technological readiness, Albania ranked 62. Is an indicator with which an economy adopts existing technologies to enhance the productivity of its industry? In today's globalized world, technology is becoming an important element for firms that they are competitive and have prosperity. Access (including the presence of a suitable regulatory framework) and the use of ICT is included in this column as an essential component of the overall level of technology readiness.

Innovation and business sophistication in which the high standard of living and the development of competing economies through new and unique products using the most sophisticated production processes and innovation. At this stage, Albania is ranked 102.

Innovation, Albania ranked 123. Under the indicators that influence these indicators are:

a. The capacity for innovation, ranked 119
b. Quality of scientific research institutions, ranked 134
c. Expenditure on R & D companies, ranked 51
d. Cooperation university-industry R & D, ranked 139
e. Government procurement in advanced technology products, ranked 58
f. Availability of scientists and engineers, ranked 126

These results indicate that the Albanian economy, despite the progress made in recent years, its competition is (still) based on cheap labor power, low productivity reflected in low wages, while public institutions are required to be consolidated further.



Source: Global Competitiveness Report 2012-2013

According to Global Competitiveness Report 2012-2013, note that Albania innovation is ranked last in comparison with other Western Balkan countries.

TABLE 2: INNOVATION IN WESTERN BALKAN COUNTRIES

	Innovation and sophistication factors		Innovation	
Country/Economy	*Rank*	*Score*	*Rank*	*Score*
Albania	**102**	**3.18**	**123**	**2.58**
Bosnia and Herzegovina	108	3.13	104	2.84
Croatia	82	3.37	76	3.09
Montenegro	59	3.62	50	3.39
Serbia	118	2.99	97	2.90
Macedonia, FYR	104	3.14	105	2.81

Source: Global Competitiveness Report 2011-2012

According to Jonida Narazani (2011, p.28): "*There are two main factors that present challenges for funding of innovation policy. Firstly, there is the limited share of GDP dedicated to R&D and innovation in the country. Secondly, is the still-constrained innovation creation and absorption capacity resulting in part from the fact that the country has tended to purchase innovations on the market rather than developing them domestically.*"
Given government budgets constraints, it is evident that additional funding will have to come from international donors and the private sector, including foreign investors which might set up research facilities in Albania to develop tailor made products or technologies for the Albanian market. *In fact, The National Strategy for Science, Technology and Innovation (NSSTI) specifically seeks to increase innovation in 100 medium and large private companies either through investment in own R&D or in partnership with academic research institutions or foreign partners.*

8. CONCLUSIONS
Innovation is important on different levels and is also important for different reasons. For nations, (and regions) innovation is an important driver of economic growth and improvement. For firms, there are a number of' reasons, including survival, growth and shareholder return.
Albania has registered a faster growth in the number of enterprises, a fact which indicates a high degree of entrepreneurial desire in the country. however, continues to lag behind other countries in terms of innovation. This puts in risk the competitiveness and sustainability of economic growth and employment. To remain competitive and sustainable in the market SMEs needs to invest in innovation.
SMEs can implement innovation using their resources through networks including support institutions, such as research institutions or other external stimuli, or through interaction with providers and clients.

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ROLE OF MAHARATNA COMPANIES IN INDIAN ECONOMY

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ABSTRACT
The Central public sector enterprises (CPSEs) have played a key and vital role in developing the nation on the global map. In 1996-1997, it was decided by Government of India that public sector companies having comparative advantages should be supported in terms of grant of autonomy in their drive to become global giants by giving the navaratna status. Seeing the performance of Navaratna companies, government decided to introduce Maharatna scheme to empower mega CPSEs to expand their operations as global giants on 4th Feb '2010. As of 31st July' 2013, 07 CPSEs have been given Maharatna status. This paper will focus on the journey of Maharatna CPSEs towards nation building due to economic reforms and fluctuating market conditions in the way to become global giants.

KEYWORDS
maharatna companies, Indian economy.

INTRODUCTION
The importance of Central public sector enterprises (CPSEs) in Indian economy can never be over emphasized. A number of CPSEs also serve critical functions of furthering the socio economic objectives of the nation and ensuring stability in prices of key products. Since inception, the Central Public Sector Enterprises (CPSEs) have been the mainstay of the Indian economy. CPSEs were set up with the mandate to serve the broad macro-economic objectives of higher economic growth, to achieve self-sufficiency in production of goods/ services to facilitate long term equilibrium in balance of payments and to ensure stability in prices and create benchmarks for prices of essential items.

With the onset of economic reforms in 1991, the Government of India initiated a systemic shift to a more open economy with greater reliance upon market forces and a larger role of the private sector including foreign direct investment. Subsequently, CPSEs were exposed to competition from domestic private sector companies as well as large multi-national corporations. Given the competitive environment, the CPSEs undertook significant initiatives for up scaling technologies and capacities in order to operate at par with the private counterparts in the liberalized and globalized economy. With continued focused efforts towards achieving excellence, several of the CPSEs have become self reliant and are playing a vital role in building the Indian economy. Giving Navratna and Maharatna status to CPSEs was just a step to make companies self reliant.

Coal India Limited, ONGC, IOCL, SAIL, BHEL, GAIL and NTPC Limited are among the seven Maharatnas of the country's Central Public Sector Enterprises. The government of India has accorded the status of 'Maharatna' to Steel Authority of India (SAIL), Indian Oil Corporation (IOCL), Oil & Natural Gas Corporation (ONGC) and NTPC Limited through a office memorandum No. 22(1)/2009-GM-GL-101 dated 19TH May, 2010. Subsequently, government of India has accorded the status of 'Maharatna' to Bharat Heavy Electricals Limited, GAIL (India) Limited and Coal India Limited through a office memorandum No. 22(1)/2009-GM dated 1ST February, 2013 and 22(1)/2009-GM dated 11TH April, 2011 respectively. The objective is to give more autonomy to the company so that they can take on global competition.

In the year 2010, the government announced a new policy under which select top performing central public sector units would be delegated substantially more financial and managerial powers than what they already have. The policy approved by the Cabinet seeks to provide further incentives to public sector enterprises that are in the category of Navratnas and already enjoy a substantial measure of operational and investment freedom.

LITERATURE REVIEW
As per Deloitte study, Roopen Roy (2010) states that Singapore Airlines is a PSU. It is profitable, efficient and well performing. The largest shareholder in Volkswagen is the state of Lower Saxony in Germany. The case of Pohang Iron and Steel Company (Posco) is even more startling. The World Bank rejected the loan application of the Korean government for setting up a steel plant in Pohang — then a fishing village. No wonder, Korea neither had deposits of iron ore nor coking coal. The Korean government took the help of a consortium of Japanese bankers and set up Posco as a State Owned Enterprise (SOE). It is now the third largest producer of steel and doubtlessly one of the most efficient. It was only in 2000 that the company was fully privatized. There is little difference between Singapore Airlines and Air-
India in their ownership structures. The difference lies in the governance, style of management, empowerment, attitude to customer service and results produced by its leadership teams.

Niranjan Kumar (2011) explained fulfillment of Maharatna eligibility criteria set by SAIL given by the Department of Public Enterprises (DPE), Government of India for achievement of Maharatna status.

Ankita (2013) has calculated the revenue factor for SAIL which shows that despite of the decline in the number of employees i.e. from 137496 employees (2002-03) to 110794 employees (2010-11), the revenue per employee shows an increasing trend throughout the study period except in 2005-06.This rising revenue factor is due to the fact that SAIL considers its human resources as its most valuable asset and has been continuously investing in this asset through systematic and well-planned programmes to make it current with latest technologies and processes. Niranjan (2012) has made the Comparison of Strategic decision taken by SAIL . & Tata Steel and co-related the strategy with the performance of the company.

As per the research of Debasish (2013), the average risk associated with the business operations of NTPC Ltd. was lower in the post-liberalization period as compared to that in the pre-liberalization period. a growth in the business risk associated with NTPC Ltd. During the pre-liberalization period whereas that in the post-
Liberalization period it reflects a negative growth and the slopes of the trend lines were found to be statistically significant at 0.01 level. It also confirms that although there was a clear upward trend in the business risk associated with NTPC Ltd. during the pre-liberalization period, a strong evidence of negative trend in it during the post liberalization period was noticed.

Ukey (2012) has explained that there has been a paradigm shift in the perceptions, mind set and way of working, of not only the top management but in general all the employees of the CPSEs. It appears the whole culture has changed for the better. This transformation is owing to the changes in the philosophy, policy and the changed market scenario in National as well as Global economy. Post 1991 the CPSEs got exposed to the competition and free and borderless market forces. The CPSEs had to face multiple challenges internally from domestic market and externally from the MNC and global players. As a result for survival either they had to shape up or ship out. With very limited options, withdrawal of budgetary support and shrinking demand they had to adopt professional approach, increase productivity, adhere to the best management and financial practices. This shift is very clearly visible in the annual reports of CPSEs which are akin to the performance reports of employees.

OBJECTIVES OF THE STUDY

1) To find out the market capitalization of Maharatna CPSEs
2) To examine the time taken by Navaratna CPSEs to get Maharatna status
3) Strategy Analysis of the companies which has taken highest and lowest time in getting the Maharatna status.
4) To find out the profit after tax of Maharatna CPSEs in 2012-13
5) To compare the annual turnover of Maharatna CPSEs in 2012-13
6) To find out the domestic share of Maharatna companies in nation growth

RESEARCH METHODOLOGY

DATA COLLECTION

The entire data used for the present study have been obtained from the secondary sources.

Sources of data collection are

1) Annual Reports of all seven Maharatnas companies obtained from their respective websites
2) Reports of department of public enterprise, government of India accessed from the website www.dpe.nic.in

TYPES OF DATA COLLECTED

1) Annual Turnover and profit after tax of all maharatna companies in year 2012-2013
2) Year of establishment, Dates of getting Maharatna and Navaratna status of all maharatna companies.
3) Domestic share of Maharatna companies

ANALYSIS & DISCUSSION

The information obtained as a result of the study has been compiled in a database formed in table 1.

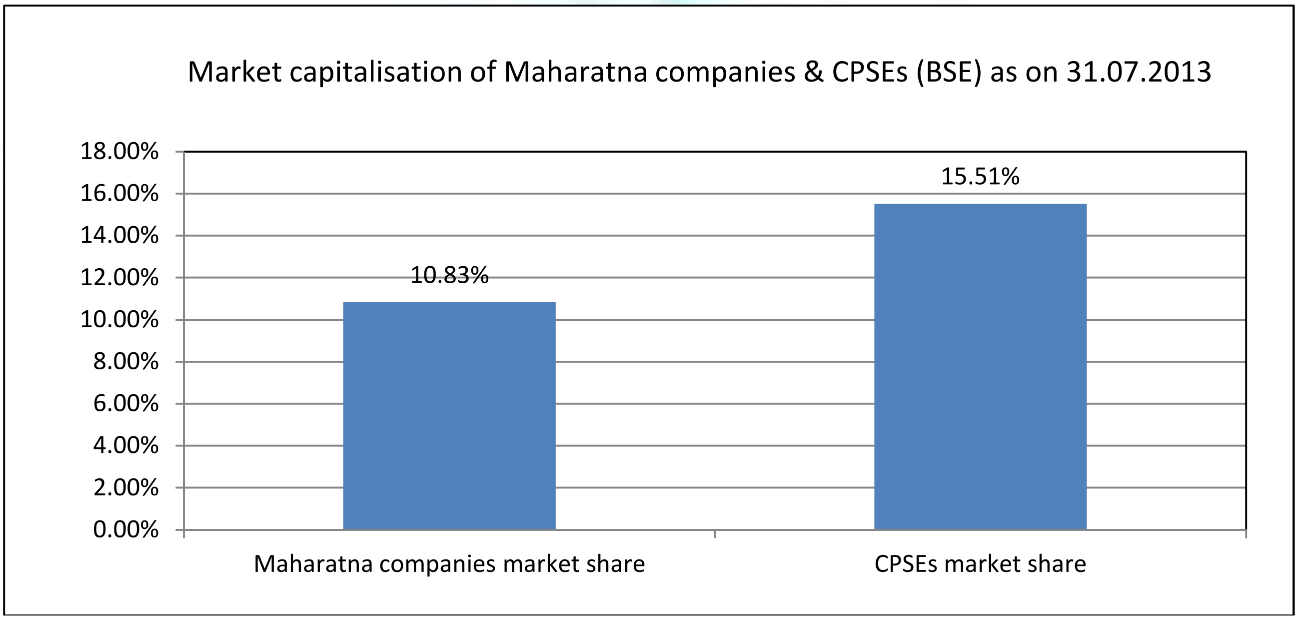
TABLE 1: DESCRIPTIVE STATISTICS OF MAHARATNA COMPANIES

Name of the CPSEs	Year of Establishment	Date of Maharatna status	Date of Navaratna status	Time taken to get Maharatna status from Navaratna	Turnover (2012-13) in crores	Profit After Tax(2012-13) in crores	% Profit (2012-13)
Bharat Heavy Electricals Limited	JAN, 1964	01.02.2013	22.07.1997	15 years 7 months	50156	6615	13.19
Coal India Limited	01.11.1975	11.04.2011	24.10.2008	2 years 6 months	88281	17356	19.66
GAIL (India) Limited	16.08.1984	01.02.2013	11.11.1997	15 years 3 months	47333	4022	8.50
Indian Oil Corporation Limited	01.09.1964	19.05.2010	22.07.1997	12 years 10 months	447096	5005.17	1.12
NTPC Limited	07.11.1975	19.05.2010	22.07.1997	12 years 10 months	67930.81	12619	18.58
Oil & Natural Gas Corporation Limited	14.08.1956	19.05.2010	22.07.1997	12 years 10 months	82552	20926	25.35
Steel Authority of India Limited	24.01.1973	19.05.2010	22.07.1997	12 years 10 months	49350	2170.35	4.40

Source: Annual reports (2012-2013) of the company accessed from company website

1) **MARKET CAPITALIZATION OF MAHARATNA CPSEs**

FIG.: 1

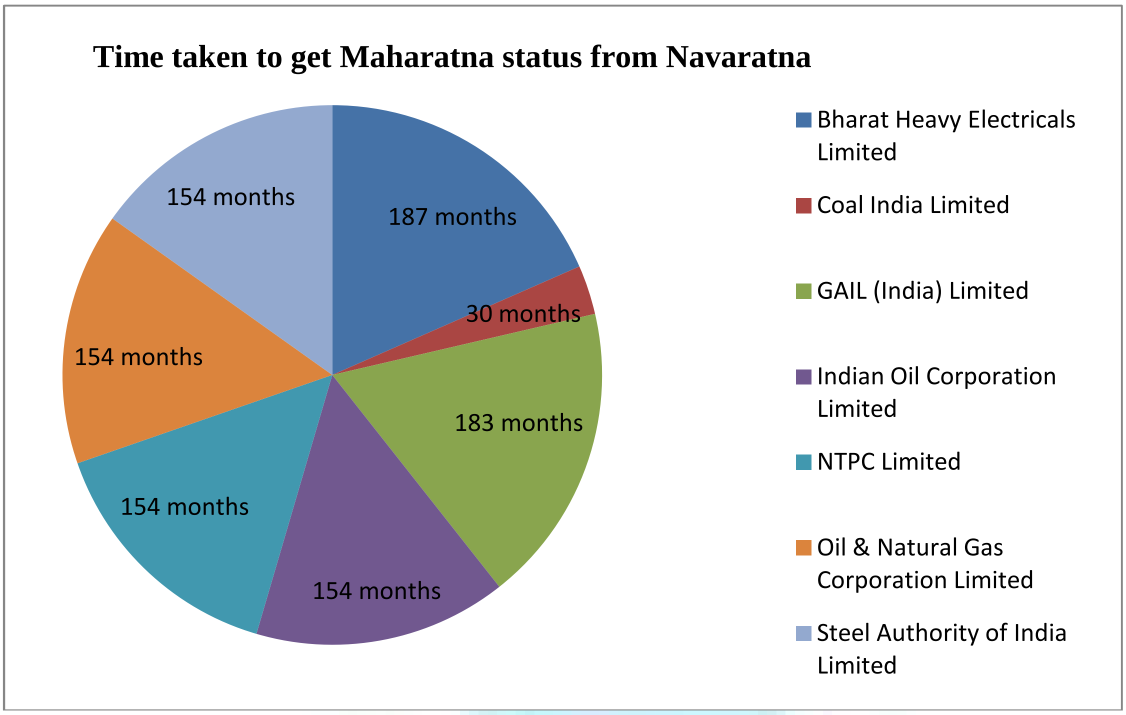


Source: http://divest.gov.in/Market_Capitalisation.asp?ord=comp_name accessed on 27.08.2013

Central public sector enterprises (CPSEs) play a vital role in the development of the country in global arena having a 15.51 % of market capitalization as on 31.07.2013 wherein Maharatna companies contributes 10.83 % market share as shown in fig.1. It reveals the strategic importance of Maharatna companies in nation growth and becoming the global players.

2) TIME TAKEN BY NAVARATNA CPSEs TO GET MAHARATNA STATUS

FIG.: 2



Source: http://dpe.nic.in/important_links/dpe_guidelines/maharatna_navratna accessed on 26.08.2013

FIG. 3: TIME SERIES PLOT FOR GRANT OF MAHARATNA STATUS

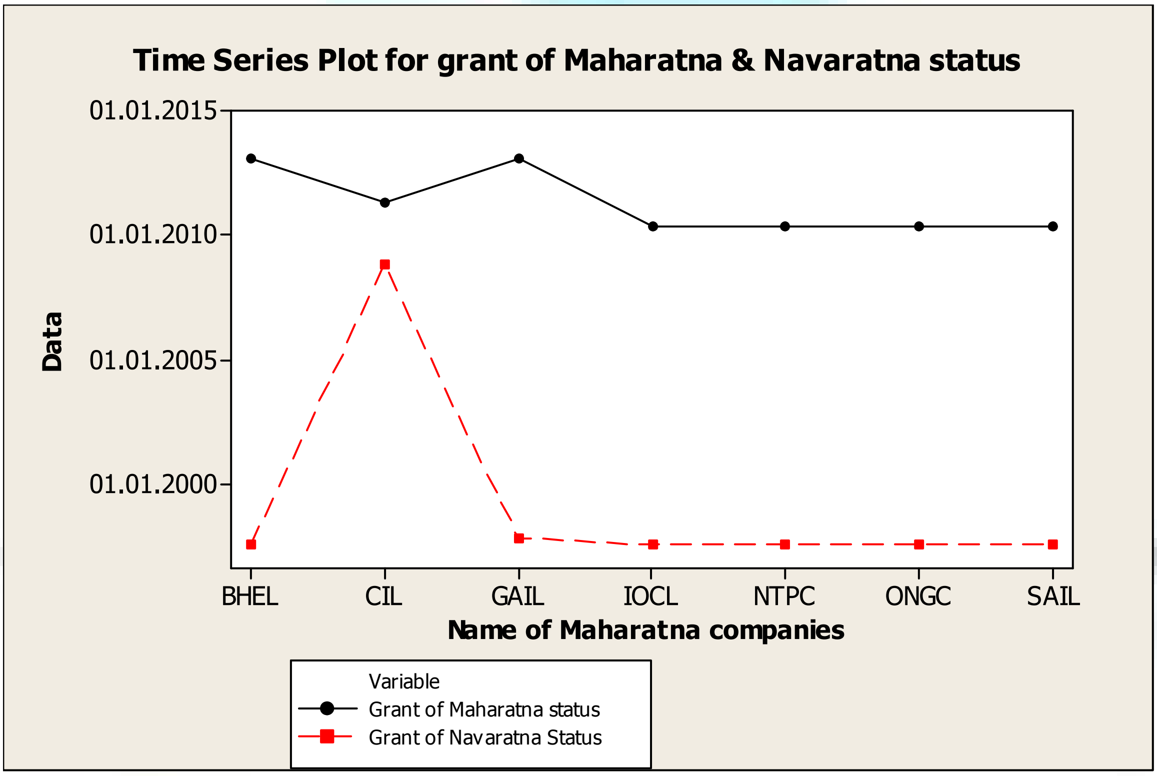


Fig.2 & 3 shows the time taken by the navaratna companies to get maharatna status. It is observed that Coal India Limited has taken least time i.e 30 months only to get the Maharatna status. Highest time is taken by BHEL.

3) STRATEGIC ANALYSIS OF THE COMPANIES WHICH HAS TAKEN HIGHEST & LOWEST TIME IN GETTING THE MAHARATNA STATUS

As a single largest coal producer in the world, Coal India Limited enjoys monopoly in domestic market.

TABLE 2: SWOT ANALYSIS OF COAL INDIA LIMITED

Strength	Weakness
1) Single largest coal producer in the world well positioned to capitalize on the high demand for coal in India for various projects. 2) Well established track record of growth and cost efficient operations as well as financial performance. 3) Strong capabilities for exploration, mine planning, research and development.	1) Poor infrastructure facilities. 2) Mining technology is outdated. 3) Coal mining in India is associated with poor employee productivity. 4) High cost of production in underground coal mines rendering them largely loss making. 5) High rate of illegal mining.
Opportunities	**Threats**
1) Strong economic growth in India and resultant demand for energy opens huge growth opportunities for CIL. 2) Coal is cheapest source of energy and thus demand will continue to remain strong, comparative to alternate energy sources available in India. 3) Increased business opportunity through the use of imported coal by blending the same with domestic coal to remove mismatch in quantity and quality.	1) Most of the coal reserves are under forest and tribal inhabited areas, increasingly making it difficult to excavate. 2) Large coal bearing areas in India is in disturbed areas, thus prone to operational disruptions. 3) Change in policies/ regulations governing the sector e.g. private participation may negatively impact CIL's performance.

Table no. 2 shows the SWOT analysis of Coal India Limited which indicates that in spite of having severe weakness, company utilized the financial and decision autonomy given by Government of India as a Navaratna company in such a way that it took smallest time to get Maharatna status by implementing following business strategy:-

a) Increasing production and capitalize on the significant demand-supply gap.
b) Improve realizations through E-Auction sales.
c) Enhancing pricing mechanisms
d) Enhance profitability and maintain competitiveness by improving operating and cost efficiencies
e) Acquiring strategic international resources or mining rights and identifying joint development opportunities in foreign countries.
f) Focusing on developing environmentally and socially sustainable operations.

TABLE 3: SWOT ANALYSIS OF BHEL

Strength	Weakness
1) Good engineering base and ability to demonstrate 2) Stable industrial relationship 3) Access to contemporary technologies with the support from renowned collaborators. 4) Ability to set up power plants on turnkey basis, Strong knowledge base for manufacture of entire equipment is available with the company. 5) Services and spares are not easily available for non- BHEL products and if they are, price charged are very high.	1) Product delivery and desired sequence of supplies 2) Large delivery cycles in comparison with international suppliers of similar equipment. 3) Inability to provide supplier's credit, soft loans and financing of power projects. 4) Liquidity position of BHEL is not satisfactory because of poor financial position of state electricity boards, which are the major customers of BHEL.
Opportunities	**Threats**
1) Demand for power and plant equipment is expected to grow. 2) Private sector power plants to offer expanded market as utilities suffers resource crunch. 3) Life expansion program for old power stations. 4) Export opportunities. 5) Financial and operational autonomy	1) Increased competition from national and MNCs. 2) Multilateral agencies reluctant to lend to power sector because of poor financial management of State Electricity Board 3) Private players in power sectors 4) Level playing ground not available, foreign companies spending much more on business promotion tactics.

As per Sudheer Pal (2013), BHEL imported components account for up to 30 per cent of the total production cost. The rupee's devaluation is adding to weak order inflows. The depreciation has eroded gains that could be accrued from the rise in import duty on power equipment to 21 per cent announced last year. BHEL's new strategies also stem from the increasing competition in the domestic market. Analysts say recently, the company lost a few local orders that created new lower pricing benchmarks. It also refrained from bidding for an order by Reliance Industries for nine circulating fluidized bed combustion (CFBC) boiler sets.

Table no. 2 shows the SWOT analysis of BHEL which indicates that due to its financial weaknesses, it took longest time to get the Maharatna status. The business strategies adopted by BHEL to overcome the weaknesses and threats are:-

a) Reducing dependency on imports through enhanced localization and optimizing designs
b) Focusing on domestic manufacturing of components that have hitherto been imported
c) The rupee's devaluation is adding to weak order inflows and strengthening competition in the local market, its traditional stronghold.
d) Widening of its vendor base and reduce cost of procuring key materials.

TABLE 4: COMPARISON OF STRATEGIC DECISION TAKEN BY COAL INDIA LTD. & BHEL

Basic Competitive Strategic Options (A company's first strategic option)		
Coal India Ltd.		BHEL
Best Cost Provider, Monopoly		Focused Differentiation
Complementary Strategic Options (A company's second set of strategic choices)		
Coal India Ltd.		BHEL
Joint Ventures	Use of Internet as a Distribution channel	Joint Ventures
Licensing, Acquisition, Expansion, Modernization	Outsourcing of Value chain activities	Acquisition, Expansion, Modernization, Diversification
Functional Area Strategies to support the above strategic choices (A company's third set of strategic choices)		
Coal India Ltd.		BHEL
Production, Marketing		R&D, Production, Human Resource, Marketing
Timing a Company Strategic Moves in the Marketplaces (A company's fourth set of strategic choices)		
Coal India Ltd		BHEL
Late Mover		Fast Follower

4) **PROFIT AFTER TAX OF MAHARATNA CPSEs in 2012-13**

FIG. 4: DATA SOURCE: 2012-13 ANNUAL REPORTS OF BHEL, CIL, GAIL, IOCL, NTPC, ONGC & SAIL

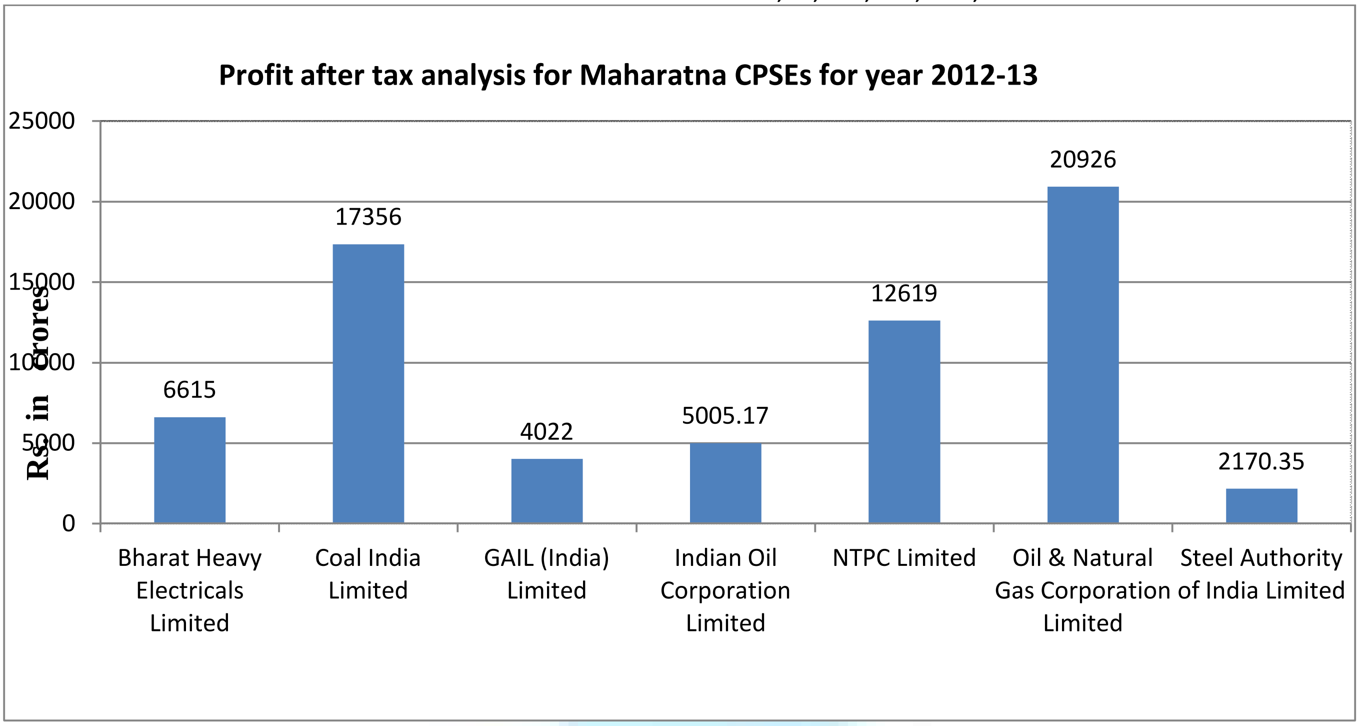


Fig.3 shows the profit after tax analyis of maharatna companies. It indicates that ONGC earns highest profit and SAIL earns smallest profit among maharatna companies.

5) **ANNUAL TURNOVER COMPARISION OF MAHARATNA CPSES IN 2012-13**

FIG. 5: DATA SOURCE: 2012-13 ANNUAL REPORTS OF BHEL, CIL, GAIL, IOCL, NTPC, ONGC & SAIL

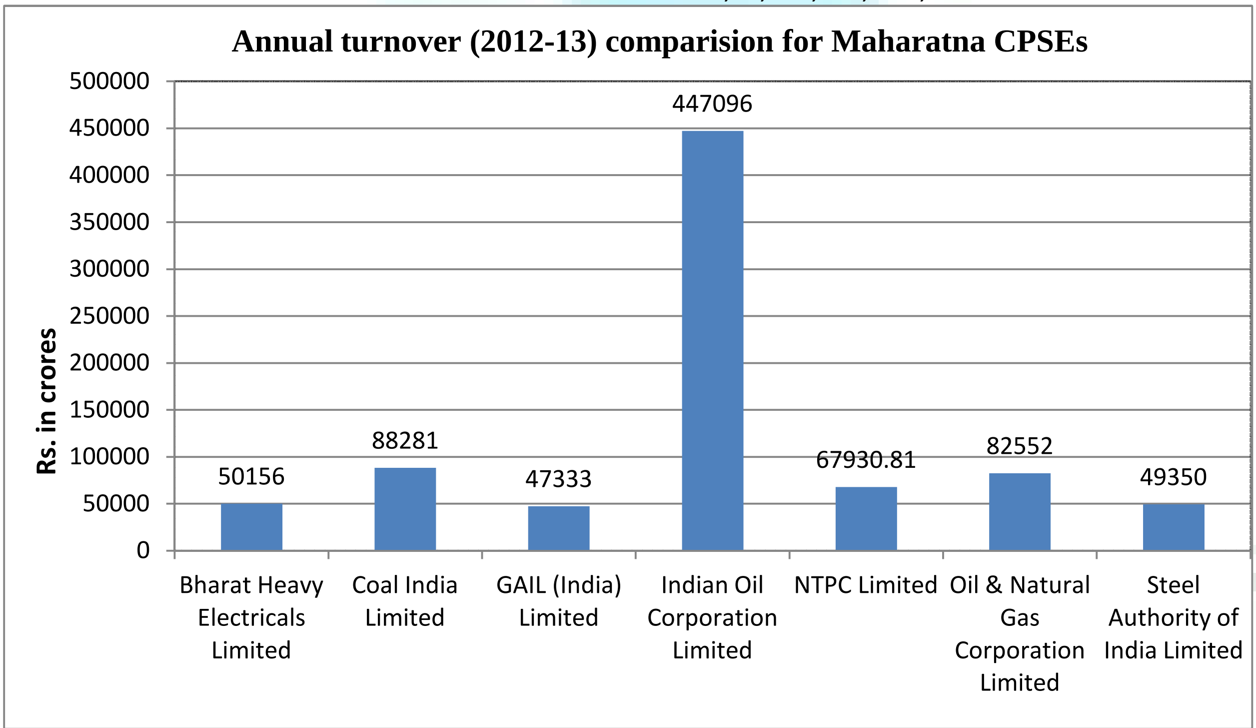


Fig.4 shows that Indian Oil Corporation Limited has posted highest turnover among maharatna CPSEs and GAIL posted lowest turnover.

6) DOMESTIC SHARE OF MAHARATNA COMPANIES IN NATION GROWTH

TABLE 5: DOMESTIC SHARE OF MAHARATNA CPSES

S.No.	Name of the Company	Sector	Domestic share
1	Coal India Limited	Hard Coal & Coking Coal	80%
2	ONGC	Crude Oil	74%
3	GAIL	Natural Gas Transmission	82 %
4	Indian Oil Corporation Ltd.	Supply of Petrol & Diesel	46%
5	SAIL	Production of crude and finished steel	33%
6	NTPC	Thermal Power generation	41.3%

Source of data for S.No. 1 to 5: Table no. 1.10, page no.17, Public Enterprises Survey 2011-12: Vol-I accessed from http://dpe.nic.in/sites/upload_files/dpe/files/survey1112/survey01/Overview.pdf on 19.01.2014

Source of data for S.No. 6: sl.no.4.1.3, Page no.22 accessed from http://www.circ.in/pdf/Public_Sector_Enterprises.pdf on 19.01.2014

Table no.5 shows the strategic importance of Maharatna companies as a domestic share for the growth of nation in the basic area like electricity oil, steel etc. In the coal segment, coal india is having highest domestic share i.e. 80% and SAIL is with least domestic share i.e.33% in steel sector.

CONCLUSION

A company qualifying for the maharstna status should have an average annual turnover of Rs 20,000 crore during the last three years against Rs 25,000 crore prescribed earlier. The average annual net worth of the company should be Rs 10,000 crore.

The Maharatna status empowers mega CPSEs to expand their operations and emerge as global giants. The coveted status empowers the boards of firms to take investment decisions up to Rs 5,000 crore as against the present Rs 1,000 crore limit without seeking government approval. The Maharatna firms would now be free to decide on investments up to 15% of their net worth in a project, limited to an absolute ceiling of Rs 5,000 crore. As a result of it, maharatna companies have 10.83% of market capitalization having a domestic share of more than 30% in the basic area like electricity oil, steel etc.

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DEVELOPING COMPETENCY BY STRATEGISING AN AGILE SUPPLY CHAIN

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ABSTRACT

The main objective of this paper is to explore the concept of agile supply chain and to determine the link between agile supply chain and competitive advantage. The 21st century has led to increase in global competition and customer demands, with higher levels of turbulence and volatility in the mar- ket place. Businesses, economics and political environments are increasingly subjected to unex- pected shocks and discontinuities. As a result of these uncertainties, organisations today are faced with a number of challenges in the supply chain which include among others the ability to meet up with changes in demand variability, service improvements, lowering inbound costs, improving on- time delivery and shorter customer lead times. In order to survive, companies need to respond to ever-increasing levels of volatility in demand and focus their efforts upon achieving greater agility. Agility has the ability to rapidly respond to changes in market and customer demands as the bearer of competitive advantage. Therefore, companies need to re-design their supply chain to tackle issues of agility in order to stay ahead in a highly competitive global market.

KEYWORDS

Agility, Competitive Advantage, Strategy, Supply Chain Management.

INTRODUCTION

The turbulent market conditions in the 21st century have heightened the need for more competitive strategies to be developed for growth (Sanchez and Perez, 2007:681). Business, economics and the political environments are increasingly subjected to unexpected shocks and discontinuities. Many strategic issues that confront business today stem from: the new rules of competition, globalisation down pressure on price and the customer taking control. Also, as a result of the recent economic meltdown, companies around the world are confronted by a perfect storm: frozen credit market and long global recession. Events are moving so rapidly that it is almost impossible to access the impli- cation of the meltdown for the days ahead, let alone the years to come (Njoroge, 2009:2).

The world is in the era of supply chain competition, where organisation no longer acts in isolation as an independent entity, but as a supply chain to create value delivery systems that are more respon- sive to fast-changing markets, more consistent and reliable (Christopher, 2005:29: Pandey and Gaug, 2009:99). The core capabilities of a company lie in its ability to design and manage its supply chain in order to gain maximum advantage in the market where competitive forces are changing. New managerial practices and unique business models emerge and fade constantly as managers strive to help their companies succeed in this less-kind, less gentle and less predictable world (Fawcett, Ell- ram and Ogden, 2007). The best word to describe the global market today is volatility. Organisations have to develop strategies in order to respond to ever-increasing levels of volatility in demand (Vinodh, Sundaraj and Devadasan, 2009:570). The big question is: How are supply chain executives coping with the changing business environment and what strategy can be implemented to achieve competitive advantage in their supply chain? Agility has the ability to rapidly respond to changes in market and customer demands as the bearer of competitive advantage. Despite the obvious benefits of agility, organisations are faced with challenges in implementing the measures necessary to in- crease their agility (Ismail and Sharifi, 2006:431). The paper explores the concept of agile supply chain and competitive advantage and presents a framework on the linkage between agile supply chain and competitive advantage. The remaining sections of the paper presents supply chain man- agement, supply chain strategies, competitive advantage in the supply chain, framework for aligning supply chain and competitive strategies and conclusion.

SUPPLY CHAIN MANAGEMENT

Supply chain management can be defined as “the design and management of seamless, value-added process across organisational boundaries to meet the real needs of the end customer” (Fawcett et al., (2007:8). As noted by Gansler, Luby and Kornberg (2004: 8), SCM is the management and control of all materials, funds and related information in the logistics process from the acquisition of raw materials to the delivery of finished products to the end user. More so, Hugo et.al (2004:5) defines “SCM as the management philosophy aimed at integrating a network of upstream linkages (sources of supply), internal linkages inside the organization and downstream linkages (distribution and ulti- mate customer) in performing specific processes and activities that will ultimately create and opti- mize value for the customer in the form of products and services which are specifically aimed at satisfying customer demands”. Generally, SCM involves relationships and managing the inflow and outflow of goods, services and information (network) between and within producers, manufacturers and the consumers (Samaranayake, 2005:48).Although the definitions of SCM differ across authors, it exists in all organisational types and can be classified into three categories: a management philosophy, implementation of a management phi- losophy and as a set of management processes (Klemencic, 2006:13; Lambert, 2006:13). Successful SCM requires a change from managing individual functions to integrating activities into SCM processes. The SCM processes identified by members of The Global Supply Chain Forum are (Lambert, 2006:13): customer relation management; customer service management; demand management; order fulfilment; manufacturing flow management; supplier relationship management; product development and customici- alisation; and returns management.

A supply chain includes all activities, functions and facilities (directly or indirectly) in the flow and trans- formation of goods and services from the material stage to the end user (Sherer, 2005:79). It is conceptual- ised as a network of companies from suppliers to end-users, with the intention of integrating supply and demand through coordinated company efforts. A supply chain links organisations in the upstream as well as the downstream flows of materials and information (Monczka Trent and Handfield, 2005:9). It comprises of a physical element and an information element. It is viewed as the formation of a value chain network consisting of individual functional entities committed to the controlled sharing of business data and processes. It consists of an upstream supplier network and downstream channel (Klemencic, 2006:7).Today; many organisations have become part of at least one supply chain. They have to perform equally well in order to achieve better performance.

The objective of SCM is to maximise value in the supply chain. The value a supply chain generates is the differences between what the final product is worth to the customer and cost the supply chain will in-cure to fulfil the customers’ request (Chopra and Meindl, 2010:22). SCM is about competing on value, collaborating with customers and suppliers to create a position of strength in the market- place based on value derived from end consumer (Chopra and Meindl, 2007:23). Within an organisa- tion, customer value is created through collaboration and cooperation to improve efficiency (lower cost) or market effectiveness (added benefits) in ways that are most valuable to key customers. Value is not inherent in products or services, but rather is perceived or experienced by the customer (Handfield, Monczka, Giunipero and Petterson, 2009:11). The ultimate goal of a SCM process is to create customer and shareholder value, thus often called a value delivery system. SCM encompasses planning, manufacturing and operations management necessary to bring a prod- uct to the market place, from the sourcing of materials to the delivery of the completed product. Some of the issues to consider when developing or managing a supply chain include integration, information technology, collaboration, customer and supplier relationships, partnerships, outsourcing and global issues as well as social and environmental issues (Borade and Nansod, 2007:112).

SUPPLY CHAIN STRATEGIES

A supply chain strategy is defined, relative to its competitors', the set of customer needs that it seeks to satisfy through its products and services (Chopra and Meindl, 2007: 22). Strategy involves deci-sions relating to the selection of suppliers, the location of facilities and the choice of distribution channels. These decisions are all driven by the goal of enabling the marketing objectives of the or- ganisation to be achieved. A typical supply chain strategy should be aimed at achieving a smooth flow at minimum cost. It is now increasingly accepted that "one size does not fit all" when it comes to designing a supply chain strategy to support a wide range of products with different characteristics sold in a diversity of markets (Christopher, Peck and Towill, 2006:277). Supply chain strategies should be tailored to match the required 'order winning criteria' in the market place. Aligning the firm's operations with market place requirements has not always been extended to the wider supply chain. An organisation's sourcing strategy, operations strategy and route-to-market needs to be ap- propriate to specific product/market condition (Christopher 2005:117). The fundamental changes in the environment of global competition and trends such as outsourcing require organisations to de- velop supply chain strategies that are aligned to "appropriate value propositions" and customer mar- ket segments. The major generic strategies in supply chain are lean and agility. Leanness means de- veloping a value stream to eliminate all waste including time, and to enable a level schedule where as Agility means using market knowledge and a virtual corporation to exploit profitable opportunities in a volatile marketplace (Mason-Jones, Naylor and Towill, 2000:4064). The concepts of leanness and agility, within the content of SCM have attracted the interest of many authors such as Christo- pher (2005); Simons and Zokaei (2005); Taj and Berro (2006); Ismail and Sharifi (2006); Guru- murthy and Kodali (2009).

LEAN Vs AGILE SUPPLY CHAIN STRATEGIES

The concept of agile supply chains was introduced to transfer and apply the winning strategy of agil- ity to that of supply chains (Harrison et al., 1999). It is a newly accepted unit of business. Agility in the context of supply chain management focuses on "responsiveness" (Lee and Lau, 1999; Christo- pher and Towill, 2000). Existing literature on agility presents it as a general concept, often linked to manufacturing only. A supply chain provides more practical setting for assessing agile capabilities (Van Hoek et al., 2001). It is unlikely that any single organisation will be able to produce artifacts with correctly configured customization and added value to satisfy a particular emergent market de- mand. Agility suggests cooperation to enhance competitiveness within organisations. Several authors claim that it is difficult to estimate agility directly in the supply chain (Christopher, 2000; Van Hoek et al., 2001). In order to reduce this significant deficiency, the supply chain is frequently introduced as an area where the agility concept can be applied in operations.

The key elements of an agile approach are very similar to the elements of the agile supply chain. Agility is all about customer responsiveness, people and information, cooperation within and be- tween firms and fitting a company for change. To be truly agile, a supply chain must possess a num- ber of distinguishing characteristics which include: market sensitivity, virtuality, process integration, and networking (Kisperska-Moron and Swiercze, 2008: 2). Parallel developments in the areas of agility and supply chain management led to the introduction of an agile supply chain (Harrison et al.

1999, Christopher 2000). While agility is accepted widely as a winning strategy for growth, even a basis for survival in certain business environments, the idea of creating agile supply chains has be- come a logical step for companies (Ismail and Sharifi 2006:434). Agility in a supply chain is the ability of the supply chain as a whole and its members to rapidly align the network and its operations to dynamic and turbulent requirements of the customers. The main focus is on running businesses in network structures with an adequate level of agility to respond to changes as well as proactively an- ticipate changes and seek new emerging opportunities.

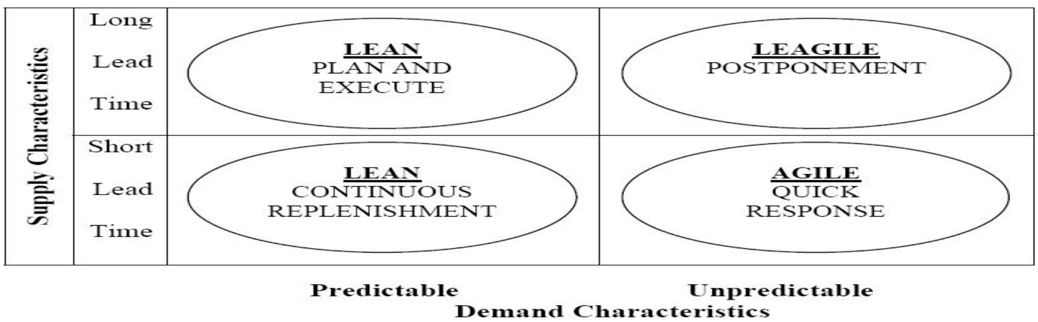
With the increase in competition and companies wooing the customer, agile supply chain has emerged as the new mantra. Those who can meet customer demands are more successful. With con- sumer preferences changing fast it became even more important to bring in new products at a pace that would put a supersonic to shame. But doesn't this pace fly in the face of global supply chains that thrive on "best price" sourcing? To some extent yes, no longer is the customer willing to wait three months to wear her fashion (clothes) that is made and exported from a country thousands of miles away. Fashion considerations now rule the day: if the product for example a dress is to be worn, its time is now, before everyone else is wearing it. '*Lean*' works best in a high volume, low variety and predictable environments, whereas '*Agility*' is needed in a less predictable environment.

where the demand for variety is high. What about factories that have been specifically built to achieve economies of scale? Are they helping their cause? Every single organisation (manufacturing) that wants to maximize economies of scale will find itself struggling when that cus- tomer comes knocking to place orders and wants quick response for its products.

So when should an organisation pursue agility? Typical products that qualify for this consideration are electronics and fashion items. These products are sold for their "distinctive" appeal and not really for the function they perform. They have short life cycles and shorter shelf lives. Demand for these products is difficult to forecast and stock-out rates can be astronomic. In some situation, there may exist, the need for both lean and agile supply chain solution since some products will have predict- able demand whilst for others, the demand will be far more volatile. Identifying the types of supply chain strategies might be appropriate in different circumstances to position the product in an organi- zation's portfolio according to their supply and demand characteristics. Supply characteristics in- clude: the lead time of replenishment and it is clear that different supply chain strategy will be em- ployed when lead times are shorter than when they are longer. With shorter lead times, there is a rush to make everything distinct in today's global marketplace, from biscuits to Barbie dolls. Com- moditization is diminishing with each passing day.

Markets are reorganizing from mass markets into highly fragmented niche markets. So is lean dead? Hardly, it exists for "functional" products, those used for our basic needs (such as food). These products have predictable demand and hence are easier to forecast. The stock-out rates are negligible. The predictable demand of lean supply chain makes the tasks easier for companies as they can focus on one prime goal: Cost reduction. Sophisticated systems and processes ensure that technology plays the required role in meeting this goal. Inventory is minimized and efficiency throughout the supply chain is maximized to get the desired results. All upstream and downstream functions collaborate to make sure that the predicted demand numbers are met at the minimum cost possible. Christopher and Towill (2002:9) suggested four broad generic supply chains strategies de- pendent upon the combination of supply and demand conditions for each product. These demand conditions might be characterized by predictability of demand as shown in figure 1.

FIGURE 1: DEMAND AND SUPPLY CHARACTERISTICS



The demand characteristics in terms of 'predictability' determine the variability of demand. Select- ing a strategic approach (lean or agile) in a supply chain can be complex. Intelligent supply chains throughout the world use a combination of lean and agile for their benefit. Table 1 shows some of the attributes that distinguishes lean and agile supply.

TABLE 1: ATTRIBUTES OF LEAN AND AGILE SUPPLY

DISTINQUISHING ATTRIBUTES	LEAN SUPPLY	AGILE SUPPLY
Typical products	Commodities	Fashion Goods
Marketplace Demand	Predictable	Volatile
Product Variety	Low	High
Product Life cycle	Long	Short
Customer Drivers	Cost	Availability
Profit Margin	Low	High
Dominant Costs	Physical Costs	Marketability
Stockout Penalties	Long term Contractual	Immediate and Volatile
Purchasing Policy	Buy Goods	Assign Capacity
Information Enrichment	Highly Desirable	Obligatory
Forecasting Mechanism	Algorithms	Consultative

Supply chain performance improvement initiatives should be focused on matching supply to demand thereby driving down costs simultaneously with improving customer satisfaction. This invariably requires uncertainty within the supply chain to be reduced as much as practicable so as to facilitate a more predictable upstream demand (Mason-Jones et al., 2000). Specific supply chains are faced with the situation where they have to accept uncertainty but need to develop a strategy that enables them to still match supply and demand. One way to distinguish between supply chains strategies is through the product types for which each strategy is used. Fisher, (1997), classified products into two generic types, fashion and commodities as follows:

FASHION PRODUCTS: They have a short life cycle and high demand uncertainty, therefore ex- posing the supply chain to the risks of both stock out and obsolescence. A good example of a fashion product is trendy clothing. The challenge faced by a supply chain delivering fashion products is to develop a strategy that will improve the match between supply and demand and enable the companies to respond faster to the marketplace. Agile supply chains are typically used for fashion products.

COMMODITIES: These are basic products, such as tinned soups, have relatively long life cycles and have low demand uncertainty due to the fact they tend to be well-established products with a known consumption pattern. The driving force for basic product supply chains is there- fore cost reduction. Lean supply chains are typically used for commodities.

When you know your supply chain strategy, it is important to determine the market Winners and market Qualifiers for its products. According to Hill (1993) there is a considerable difference be- tween the two groups of products ('order qualifiers' and 'order winners') against which manufactur- ing strategies should be determined. Every business needs to understand what the baseline is for en- tering into the competitive arena (the order qualifiers). Order Qualifiers are those (minimum) crite- ria that a company must meet to be considered as a possible supplier while order winners are those criteria that win the orders. The definition of order qualifiers and order winners logically leads to the specification of the appropriate manufacturing strategy. It is on this basis that the concept of 'market qualifiers' and 'market winners' developed (Christopher and Towill, 2002). Table 2 depicts a frame- work for market winners and market qualifiers.

TABLE 2: MARKET WINNERS AND MARKET QUALIFIERS

Fashion Goods (Agile Characteristics)	x **Quality** x **Price** x **Lead Time**	x **Service Level**
Commodities (Lean Characteristics)	x **Quality** x **Lead Time** x **Service Level**	x **Price**
	Market Qualifiers	**Market Winners**

The market winner for fashion products is availability, whereas the market winner for commodities is price. Quality and lead-time are market qualifiers in both cases: price and availability are market qualifiers for fashion products and commodities respectively. The emphasis on the figure is that sup- ply chain must excel at the market winner metrics *and* be highly competitive at the market qualifier metrics that is the minimum standard for entry into the marketplace. These two product types re- spond to distinctly different marketplace pressures and hence require a different supply chain ap- proach to address their specific characteristics. Understanding the particular characteristics of the product type, marketplace requirements and management challenges, will help an organisation to design the correct supply chain strategy that will ensure optimal performance and gain competitive advantage. This can be achieved via developing strategies that will reduce the effect of the system- induced uncertainty, thereby reducing the Bullwhip effect and, at the same time, actively coping with the particular marketplace uncertainty pressures.

Looking at the different characteristics, there are different ways that an organisation can integrate lean and agile supply chain. Based on the attributes of lean and agile supply chain, it is evident that a number of common characteristics exist and the whole concept can co-exist. There are three ways in which Leanness and agility can sometimes be combined. That is through the strategic use the pareto curve approach, the decoupling point and the 'base and surge' demands (Christopher, 2005). There- fore, instead of a "pure" agile and pure lean supply chain, there will often be situations where a com- bination of the two may be appropriate, i.e. a hybrid strategy, that is, a mixed portfolio of products and markets, there will be some products, where demand is stable and predictable, and some prod- ucts where the converse is true. As Fisher (1997) points out, it is important that the characteristics of demand are recognized in the design of supply chains. Also, it is not necessarily that a supply chain should be either lean or agile. Instead, a supply chain may need to be lean for part of the time and agile for the rest. Naylor, Naim and Berry (1999) and Mason-Jones *et al.* (2000) present the term "*leagility*" - the combination of the lean and agile paradigm within a total supply chain strategy posi- tioning the decoupling point, so as to best suit the need for responding to a volatile demand down- stream yet providing level scheduling upstream from the decoupling point.

COMPETITIVE ADVANTAGE

Competitive advantage exists when a firm has a product or service that is perceived by its target mar- ket customers as better than that of its competitors. It is an advantage an organisation has over com- petitors, gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and service that justifies higher prices. SCM is about competing on value, collabo- rating with customers and suppliers to create a position of strength in the marketplace based on value derived from end consumer. The overall objectives of SCM is to create value for customers, com- petitive advantage and improved profitability for supply chain firms, the dimensions of value that may be important to customers, and the mechanisms whereby competitive advantage and improved profitability can be achieved. Within an organisation, customer value is created through collabora- tion and cooperation to improve efficiency (lower cost) or market effectiveness (added benefits) in ways that are most valuable to key customers. Value is not inherent in products or services, but rather is

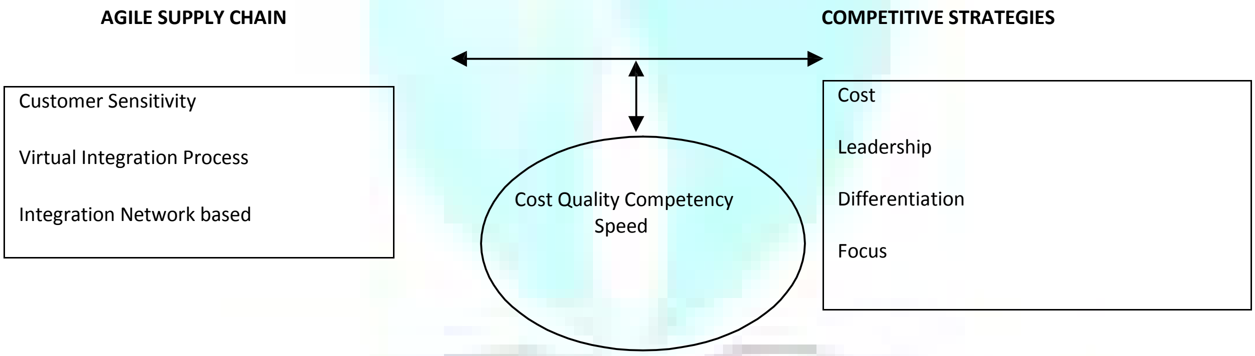
perceived or experienced by the customer. Therefore, in order to compete through creating customer value, a firm must understand, and deliver the value perceived as important by its custom- ers. By satisfying customers and achieving competitive advantage, firms in a supply chain influence customers to make choices and behave in ways that improve the financial performance of the supply chain and the firms within it.
An organisation's competitive advantage is built upon a well-planned and executed supply chain management strategy that is sustainable. This is because it is broadly considered as a philosophy of management. Supply chain management is never totally attained by any company or group of com- panies, nor can the elements of success enjoyed by one supply network be transferred to another with the expectation of identical levels of performance. Therefore, competitive advantage belong to those supply chains that can activate concurrent business processes and core competences that merge infra- structures, share risks and costs, leverage the shortness of today's product lifecycle, reduce time to market, and gain and anticipate new vistas for competitive leadership (Ross 1998.) In the competi- tive context, successful companies either have a productivity advantage (or cost advantage) or value advantage, or ideally, a combination of these two (Christopher 1998, McKinnon 2001). A supply chain is a part of an organisation's competitive advantage. No producer is an island nor can any or- ganization work independently from its supply chain. Every organization works in teams or supply chains. So if any part of the chain is weak then the whole business model becomes weak. Wastes and inefficiencies that cannot be passed on to the customer result in costs and low profits for the pro- ducer – an uncompetitive position. In basic terms, the supply chain consists of suppliers, customers and, the producer. Competitive advantage can be achieved by aligning the supply chain strategy to the competitive strategy.

COMPETITIVE STRATEGIES
A firm's relative position within an industry is given by its choice of *competitive advantage* (cost leadership vs. differentiation) and its choice of *competitive scope*. Competitive scope distinguishes between firms targeting broad industry segments and firms focusing on a narrow segment. Generic strategies (Porter, 1995:12) are useful because they characterize strategic positions at *the simplest and broadest level*. Porter (1995) maintains that achieving competitive advantage requires a firm to make a choice about the type and scope of its competitive advantage. There are different risks inher- ent in each generic strategy, but being "all things to all people" is a sure recipe for mediocrity - get- ting "stuck in the middle". Therefore an organization can create competitive advantage through:
- **Cost Leadership:** Cost advantage occurs when an organization delivers the same services as its competitors at a lower cost.
- **Differentiation:** Differentiation advantage occurs when an organization delivers greater ser- vices for the same price of its competitors. They are collectively known as positional advan- tages because they denote the firm's position in its industry as a leader in either superior ser- vices or cost.
- **Focus:** A focused approach requires a fir, to concentrate on a narrow rather than industry wide competitive advantage.

TABLE 3: ATTRIBUTES OF COST LEADERSHIP AND DIFFERENTIATION STRATEGIES

COST LEADERSHIP	DIFFERENTIATION
efficiency	effectiveness
standardization	customization
mass production	shorter production runs
process improvement	product development
reduced service	enhanced service
stability	flexibility
	strong marketing

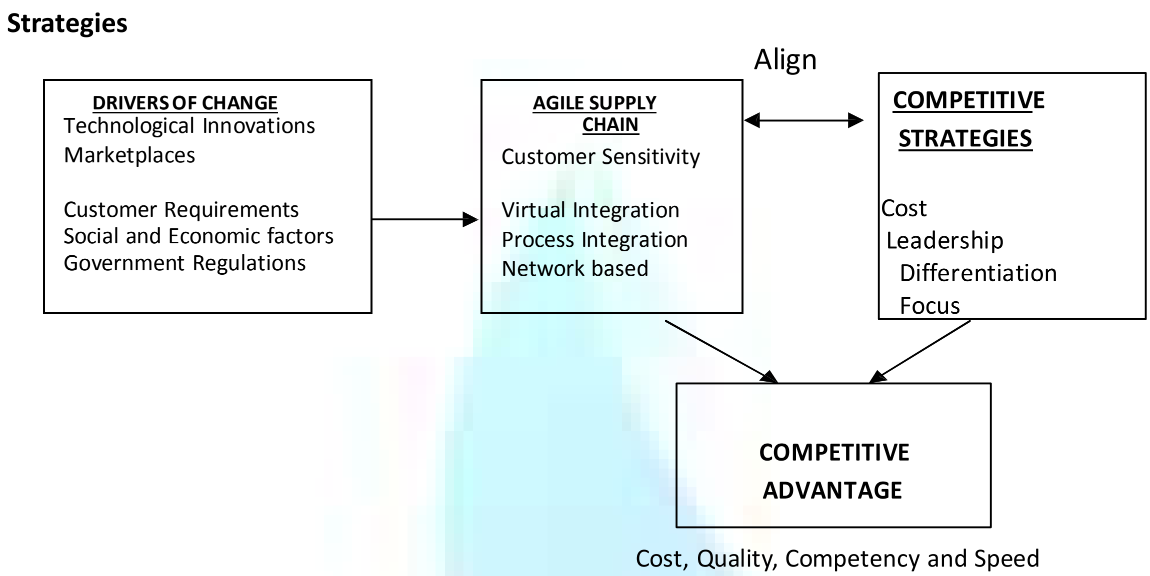
FIGURE 2: THE LINK BETWEEN AGILE SUPPLY CHAIN AND COMPETITIVE STRATEGIES



FRAMEWORK FOR ALIGNING AGILE SUPPLY CHAIN TO COMPETITIVE STRATEGIES
The aim of the proposed framework is to map the link between agile supply chain and competitive advantage. In this turbulent uncertainty in the business environment, it is important to determine your market, the nature of products and services, the market winners and market qualifiers to deter- mine your supply chain strategy. As indicated in the paper, the best supply chain strategy to use to meet customer expectation when demand is uncertain is agile supply chain. In an uncertain business environment, competitive advantage is achieved when you determine the drivers of change, be flexi- ble, adaptive and responsive through agile supply chain strategy; and align your supply chain strat- egy to the overall business strategy to gain competitive advantage as explained below.
Drivers of Change: The main driving force behind agility is change. It is changes or pressures in a business environment that force a company to search for new ways of running its business in order to maintain its competitive advantage. The change drivers can be characterized by the following ele- ments: changes in marketplace; changes in customer requirements; changes in competition criteria; changes in technology; as well as changes in social factors (Ismail and Sharifi 2006:434). When a business venture is faced with rapid changes, agility supply chain strategy should be employed to respond quickly to counter act the effect of the changes to gain competitive advantage.
Agile Supply Chain: An agile supply chain requires various distinguishing capabilities in order to enrich and satisfy customers. These include: responsiveness, flexibility and adaptability. To be truly agile, an organisation must possess the following elements: market sensitive, process integration, network based and virtual (Christopher, 2000). They should be able to be flexible, responsive and adapt to changing market conditions. This can be achieved through collaborative relationship, proc- ess integration, information integration, and customer/marketing sensitivity achieving customer- satisfied objectives. These include cost, time, competency and speed in the supply chain contributing to competitive advantage of the entire organisation.
Competitive Strategies: An organisation's position in the industry in which it operates is deter- mined by its competitive strategy. A winning competitive strategy is founded on consistently under- standing and predicting changing market conditions and customer needs. Agile supply chain must be aligned to the competitive strategies to improve the overall performance of the organisation. The target of agile supply chain is to provide personalized products with unique features to the market quickly in order to maintain a competitive advantage in today's changing environment. In order to fulfill such a target, the supply chain may maintain a substantive stock of components waiting for the final assembly or configuration. That is a converse method to the lean supply chain that is a cost- advantage strategy. Goldman et al. (1995) contended that the market segmentation is a major force for introducing and implementing agility in an

organization. Through the share of market knowledge and competencies of partners, the agile supply chain can make detail market segmentation and introduce new product more quickly. Porter's differentiation strategy refers to the unique image or value of products and services. In the context of supply chain management, the agile supply chain is the most appropriate format to fulfill the specific goal of Porter's differentiation strategies and is appro-priate to meet the challenges of the business environment. If you know your supply chain strategy and your competitive strategy, based on the product and the customers, aligning the two strategies will lead to competitive performance in the organization. Figure 3 below shows the framework for agile supply chain as a strategy for competitive advantage.

FIGURE 3: ALIGNING AGILE SUPPLY CHAIN TO COMPETITIVE STRATEGIES



CONCLUSION

The main objective of the paper was to explore the concept of agile supply chain and to determine the link between agile supply chain and competitive advantage. Based on literature explored, be- cause agile supply chain is a winning strategy for growth, and lean supply chain a pre-requisite for the creation of an agile supply chain, it is evident that it is a strategy for competitive advantage. Ag- ile supply chain is triggered by"change"which is the only constant thing in the business environment. Furthermore, relevant literature has shown that business success can only be achieved through effec- tive co-ordination of all the participants companies across the supply chain (Van Hoek et al, 2001) to shorten product life cycle and reduce product cost (Levary, 2000) as supply fluctuates more rapidly than ever before. Breaking through this challenge, it is necessary that organizations focus their effort upon achieving greater agility such that it can respond in shorter time frames both in terms of vol- ume change and variety change (Christopher, 2005). Agility is considered as a vital factor for busi- ness success in complex industrial landscapes as it enables rival firms to efficiently perform under time-to-market pressures. Putting the idea of lean and agile supply chain together, it can be con- cluded that lean is needed to build agility and the pre-requisite for success in the market place is an agile supply chain. The key to the success of an organisation is to align agile supply chain strategy to the differentiation strategy to meet the overall objective for competitive performance, hence com- petitive advantage. Therefore, agile supply chain is a strategy for competitive advantage. If you're not agile, you can't do it, because customer expectations are never static.

Therefore, to sustain and maintain supply chain agility, an organisation should:

- Commit to flexibility and adaptability in regards to your supply chain. Convince those who will implement the necessary programs of its importance.
- Identify the factors involved in past problems with your company's supply chain. Review your business's past history for its biggest problems.
- Implement simple solutions for these problems.
- Design programs for solutions that are not solved simply. Prioritize problems on the basis of which are most likely. Systematically move through these problems.
- Address flexibility and adaptability while moving through the later stages of disaster-proofing your production. Begin by asking for input from all levels of production, even levels below that of managers.
- Centralize responsibility for reviewing plans for change. Those with the responsibility should have a broad base of experience. Involve consulting firms if needed, but critically assess the skills of the consultants such that they fit into your team.
- Integrate the newer theories of agile supply chains, specifically those that allow for greater coordination between customers and suppliers, where appropriate.

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EURO ZONE CRISIS: IMPACT AND IMPLICATION FOR INDIA

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ABSTRACT

The global economy is still being buffeted by the effects of sovereign debt crisis which hit the Euro-zone. The crisis is the result of increasing property prices, credit growth which got translated into a buildup of debt. The after effects of the Euro zone crisis have been felt not only by Euro zone countries but also by developing countries who were trying to put in place the plans to recover through the US Sub-prime crisis of 2007. The European Union has since its inception been a vital economic and trade partner for Asian countries. It has been an important absorbent of exports of Emerging and developing economies (EDEs), and also a key provider of large amount of foreign direct investment and capital flows into the EDEs especially India. Europe and US accounts of a third of India's export. The euro-zone crisis following the global financial crisis will jeopardize the recovery plan and macroeconomic variable of India. The present paper tries to review the underlying causes of the European Sovereign debt crisis and analyses the impact and implications of European crisis for Indian economy.

KEYWORDS
Emerging economies, Euro zone, India, Sovereign Debt Crisis.

INTRODUCTION

The euro zone debt crisis is yet another external shock which has its origin in large developed economies, however creating its ripples of its effect on the emerging economies. After the global financial crisis of 2008-2009, the euro zone sovereign debt crisis has led to a crisis of confidence in the financial markets of the world in the midst of increasing global turmoil and uncertainties of recovery from the global crisis. The Euro zone is under pressure of high level of indebtedness, budget deficits and fragile growth, thereby affecting the macroeconomic structure of other economies. The continuing insecurity in the euro zone has affected the expansion prospects of both developed and emerging economies as now globally financial markets are well interconnected with each other. On a global level, vigilance is needed to ensure that accommodative monetary policies and an extended period of low rates do not give rise to fresh credit excesses. The policymakers all over the world have to play a proactive role to tighten the financial supervision and to check the risk stemming from the increased global capital flows and vulnerabilities it brings along. None of the peripheral economies that have been reliant on bailouts and supplements from the troika of the European Central Bank (ECB), the European Union (EU) and the IMF are sure of rebounding. In the second section the paper gives a brief on the background of creation of Euro-zone and further section 3 analyses the causes for occurrence of euro zone crisis. Further the section 4 discusses the impact of sovereign debt crisis on India and section 5 provides the implications of euro debt crisis for India. Last section, details out the lessons learned by Indian economy from the crisis.

THE EURO-ZONE: BACKGROUND

The euro zone came into existence on 1 January 1999, when eleven European countries namely, Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland came together and declared Euro as their official currency by replacing the old national currencies – such as the Deutschmark and the French franc – in two stages. The European Union (EU), founded in 1957 is a political union of 28 member states who were determined on creating a 'common market' for trade. However, over time it became clear that closer economic and monetary co-operation was needed to develop the internal market and for the whole European economy to flourish and perform better. To achieve this goal, in 1991 the Member States approved the Treaty on European Union (the Maastricht Treaty) leading to formation of the European monetary union (EMU). The treaty established budgetary and monetary rules for countries wishing to join the EMU called the 'convergence criteria" (Table1). The criterion were designed to be a basis for qualifying for the EMU and pertained to the size of budget deficits, national debt, inflation, interest rates, and exchange rates (Anand, Gupta, & Dash, 2012). One of the criteria was that the Member States must keep their government and debt deficits under specified limits (3% and 60% of GDP, respectively), according to the Treaty and the rules set out in the Stability and Growth Pact. The aim is to ensure sound and sustainable public finances in the Member States of the EU and the euro area.

In 1999, when the euro was introduced, the euro area was made up of 11 of the then 15 EU Member States. Greece joined in 2001, followed by Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009 and Estonia in 2011. Today, the euro area has 17 EU Member States. Denmark and the United Kingdom choose to have 'opt-outs' from joining for reasons of economic sovereignty, although they can join in the future if they so wish. Sweden has not yet qualified to be part of the euro area.

The responsibility of formulating economic and monetary policy for the "Euro System" is not handled by a single institution but by a group of actors. The European central Bank (ECB) along with national central banks (NCBs) of the euro-area Member States, manages the monetary policy for the Euro area. The decisions on monetary policy in the euro area are only taken by the Governing Council of the ECB, which comprises the governors of the national central banks of the euro-area Member States and the members of the ECB's Executive Board. Member States outside the euro area coordinate their monetary policy with the ECB.

The Council coordinates economic policy-making and takes decisions on the operations of the Stability and Growth Pact and the application of the Treaty. The Stability and Growth Pact (SGP) was adopted by the Council in 1997 (later revised in 2005). The SGP is the cornerstone of fiscal policy coordination within the EMU and ensure sound and sustainable public finances . The Council also decides whether a Member state may adopt the euro.

European Commission monitors the performance of the Member states and compliance with the Treaty and the Stability and Growth Pact. It also makes assessments and recommendations to the Council on decisions to be taken.

The European Parliament works together with the Council to formulate legislation, and subject's economic governance to democratic scrutiny in particular through the new Economic Dialogue.

REASONS FOR EURO

The overarching justification for the Euro was not merely economic, but political. The motive of creating euro as a single currency for European Union was to propose various advantages and benefits over the use of different currency by each Member States. Not only are fluctuation risks and exchange costs eliminated and the single market strengthened, but the euro also means closer co-operation among Member States for a stable currency and economy to the benefit.[9] The benefits of creation of Euro zone can be seen on both micro and macro-economic level. At microeconomic level, with the single currency, doing business in the euro area is more cost-effective and less risky. The single currency brings new strengths and opportunities arising from the integration and scale of the euro-area economy, making the single market more efficient and reduced transaction cost.

At the macroeconomic level, use of single monetary policy in the euro area was anticipated to be positioned to help improve economic stability and growth.

[9] http://ec.europa.eu/economy_finance/euro/why/

TABLE 1: THE FIVE CONVERGENCE CRITERIA

What is measured:	Price stability	Sound public finances	Sustainable public finances	Durability of convergence	Exchange rate stability
How it is measured:	Consumer price inflation rate	Government deficit as % of GDP	Government debt as % of GDP	Long-term interest rate	Deviation from a central rate
Convergence criteria:	Not more than 1.5 percentage points above the rate of the three best performing Member States	Reference value: not more than 3%	Reference value: not more than 60%	Not more than 2 percentage points above the rate of the three best performing Member States in terms of price stability	Participation in ERM II for at least 2 years without severe tensions

Source: European Commission: Economic and Financial Affairs.

The Euro system was committed to economic and price stability which would strengthen long-term stability and creditability of the euro area and attract new opportunities in the global economy for trade and investment. Prudent economic management makes the euro an attractive reserve currency for third countries, and gives the euro area a more powerful voice in the global economy. The size and strength of the euro area make it better able to absorb such external shocks without job losses and lower growth.

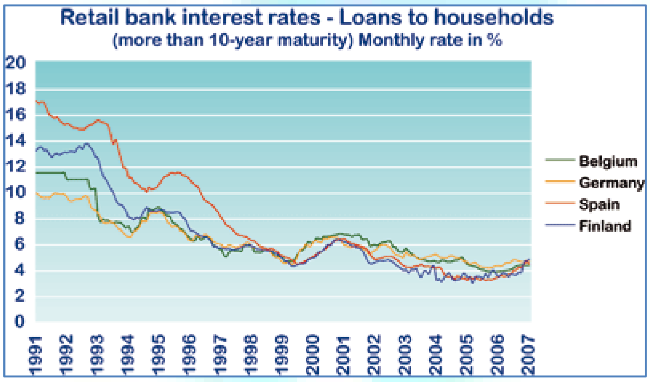
The EU Member states in the euro area would coordinate their economic policies with the overall objective of maintaining economic stability. ECB would conduct an independent monetary policy to maintain low inflation i.e. below but close to 2% in the euro area. The Economic stability and low inflation is a necessary condition to achieve sustainable long-term growth in the euro area and benefit the members and their citizens.

Bank (ECB) conducts an independent monetary policy with the objective of maintaining low inflation in the euro area (below but close to 2%). Economic stability and low inflation create the necessary conditions for sustainable long-term growth, which benefits the euro-area Member States and their citizens.

The euro came came into use in physical form as bank notes and coins on 1 January 2002. The use of euro currency by Member states has generated benefits for both business and consumers. With use of single currency Euro by Member states has brought price transparency in the market by making it easier for consumer to compare prices of different products and services across borders. The Euro has also brought inflation down to lower and stable level. Since euro's introduction the level of inflation has come down to 2% from the previous high level of 20% in 1970's and 80's. Price stability and lower inflation increases the purchasing power of the citizens, their value of savings which makes future certain. Thus, the euro area saw rapid changes in the financial markets with lower inflation resulting in lower interest rate making loan cheaper and easily available to consumer and future payment more predictable. Mortgage rates have fallen from a high level of 8%-14% to 5% on an average, saving more money with the borrower.

The EU is one of the world's key economic players, accounting for about 30% of global GDP and 20% of global trade flows, while the euro has emerged as a key international currency. The EU's experience has a unique experience in terms of regional economic integration.

FIGURE 1: RETAIL BANK INTEREST RATE- LOANS TO HOUSEHOLDS



Source: http://ec.europa.eu/economy_finance/euro/why/consumer/index_en.htm

EURO-ZONE CRISIS BUILD-UP

The global financial crisis of 2008-09 emerged in US, an advanced economy, spreading throughout the world, severely affecting other developed economies. The global financial crisis initiated in the US subprime mortgage market, spreading its ripples across the Atlantic to Europe because of huge exposure of European banks to US subprime assets. The developing countries were able have an easy and speedy recovery from the crisis as compared to developed economies that had a weak recovery. The growth momentum in the recovery of global economy was geared towards the developing economy higher than the developed economy after the financial crisis. Banks in emerging markets are normally considered high risk, while banks in developed countries are generally thought to be robust and well regulated — but the 2008 global financial crisis suggests the opposite. Emerging-market economies have been considerably strengthened since the 1997 Asian financial crisis, through better macro-stabilization and other reforms. Exposure to cross-border risks and doubtful sovereign debt has been limited, and high-leverage, short-term funding and risky endogenous expansion of balance sheets — which led to the global financial crisis have been absent.

In 2009 the global economy was trying to recover from the US subprime crisis when the world economy was again confronted with another major financial crisis from a developed economy i.e. Europe. The Euro-zone sovereign debt crisis halted the recovery of global economies by posing the biggest downside risk to the global outlook.

However, the euro-zone crisis differs from the US subprime crisis in the sense that the US is unaffected by the euro zone crisis due to lack of exposure of US banks to European government sovereign debt. However, from the point of view of developing countries, both crises represent external shocks to their economy from advanced economies. The euro crisis is essentially a fiscal crisis associated with governments borrowing too much and taking on unsustainable levels of debt. In contrast, the global crisis was a banking crisis resulting from banks lending too much money to borrowers with poor credit histories. The euro crisis is a public sector crisis whereas the global crisis was a private sector (Lee, Park, Abdon, & Estrada, 2013).

The Euro-zone sovereign debt crisis has its roots in the unsustainably large public debts of EU countries and the exposure of European banks to such debt. The widespread fear of growing government deficits and distressing debt levels across the globe after global financial crisis was beckoned with downgrading of European governments' sovereign debt supplemented the apprehension in the financial markets.

The euro area crisis caught the eyes of the world economies in 2009 when Portugal, Ireland, Greece and Spain receded into recession with exceptionally high budget deficits (Mohanty, 2013). The possibility of default on government sovereign debt along with unstable macro-economic variables like recession led budget deficits, fiscal measures to bailout debt-ridden economies, hurt the sentiments and confidence in European countries. This led to threatening of existence of euro as a single currency of EU.

The introduction of euro as a single currency created various benefits for the Euro area like increased competition, common benchmark and lower transaction cost in inter-region area. This led to narrowing of yield and spreads across regions thereby increasing liquidity across borders. Thus similar debt instruments issued in different national regions were perceived as close substitutes. As the interest rate lowered in euro area, the risk premium diminished and increase in bank borrowing abroad became easy. Availability of loans at low rate of interest led to splurge in construction and financial services thereby increasing macro-economic vulnerability. Increase in borrowing abroad translated into a swelling of debt of euro area. Thus in 2009, the gross public debt of Greece was 113% of GDP far more than euro zone limit of 60%. The euro zone entered into recession in third quarter of 2008 and officially confirmed on 1 January 2009. The EU was in negative growth for the second, third and fourth quarters of 2008 and the first quarter of 2009.

The euro-zone crisis prompted a number of bailouts packages and reforms measure to bring back the euro zone countries to life after the sovereign debt default of member states. This was a u-turn on the EU treaties which rule out any bailout for euro member state to persuade them to manage their finances better. However, with Greece along with member states struggling with high debt and to restore their finances, it was agreed to devise a temporary bailout package in the form of a special purpose vehicle (SPV). The European Commission (2012) proposed a three stage approach: first, the establishment of a Single Supervisory Mechanism (SSM); second, the establishment of a Single Resolution Mechanism (SRM); and third, in the indefinite future, some sort of common, euro-area deposit guarantee scheme (CDGS).

On 2 May 2010, to restore confidence of investors, the EU and IMF collectively issued €110bn bailout package for Greece which was on conditional to implementation of austerity measures. On 9 May 2010 the decision was made by 27 member states of the EU to create a special purpose vehicle, the European Financial Stability Facility (EFSF), to preserve financial stability in Europe by providing financial assistance to euro zone states in difficulty. The EFSF was empowered to sell bonds and use the money to make loans up to a maximum of € 440 billion to euro zone nations. The bonds were to be backed by guarantees given by the European Commission representing the whole EU, the euro zone member states, and the IMF. The EFSF combined the € 60 billion loan coming from the European financial stabilization mechanism (reliant on guarantees given by the European Commission using the EU budget as collateral) and a € 250 billion loan backed by the IMF in order to obtain a financial safety net up to € 750 billion. The agreement allowed the ECB to start buying government debt which was expected to reduce bond yields. As per the conditions, Greece was to mobilise $ 70 billion by way of privatization of its state enterprises. In November, 2010 EU and IMF agree to bail-out the Irish Republic with 85 billion Euros. The Irish Republic soon passes the toughest budget in the country's history.

The measures taken in May 2010 had a palliative effect. Serious doubts remained on the ability of Greece to service its debt and bond yields started to spike again. In April 2011, Portugal admitted that it could not deal with its finances and asked the EU for help. In May 2011, European finance ministers approved euro 78 billion rescue loans to Portugal. Meanwhile, Moody‘s lowered Greece‘s credit rating to junk status on June 1 2011 (to Caa1 from B1).

An extraordinary summit was again convened on 21 July 2011 in Brussels. The leaders decided to take measures to stop the risk of contagion. They agreed on a further bailout for Greece for 109 billion euros with the participation of the IMF and voluntary contribution from the private sector in order to cover the financing gap. The EFSF was indicated as the financing vehicle for the disbursement with regular assessment by the Commission in liaison with the ECB and the IMF.

The agreement included extending the loan repayment periods and a cut in interest rates. To prevent the possible contagion, the leaders agreed to increase the flexibility of the EFSF to be able to lend to states preventively on the basis of a precautionary programme. The EFSF was empowered to recapitalize financial institutions through loans to governments even in those countries that were not under any programme. Further the EFSF was allowed to intervene in the secondary markets to deal with exceptional financial market circumstances and in the event of a risk to financial stability.

While massive and forceful liquidity support by the European Central Bank (ECB) since December 2011 has temporarily calmed the financial markets, the euro crisis still awaits a more fundamental resolution (Aizenman, Jinjarak, Lee, & Park, 2012).

IMPACT OF SOVEREIGN DEBT CRISIS ON INDIA

The euro has traditionally been an important economic partner for India. The euro zone absorbs a major share of India’s exports which was 13% of total exports in 2012. India receives a large amount of foreign direct investment and other capital flow from the euro area. The close economic linkages between India and Euro zone makes it imperative to study in detail the effect of euro-zone sovereign debt crisis on Indian economy. India is primarily a domestic country with its sovereign debt denominated in Indian rupees and mostly purchased domestically. This means that its sovereign debt is purchased by its financial sector, which is not relaxed in terms of its foreign exposure given the capital controls by RBI on banks. Therefore, if India’s fiscal deficit doesn’t decrease in near future, the economy would be at a higher credit risk, increasing India’s vulnerability to a decrease in its GDP growth.

India clocked an average growth of 9.5 per cent in the three year period before the global financial crisis (2005-08). Today, there is a sharp reversal. Growth has decelerated, inflation is still high and stubborn, the investment rate has declined sharply and the external sector is beset with a record high current account deficit.

International investors are withdrawing money from Indian markets due the indication of withdrawal of US Federal Reserve Quantitative easing(QE) signaling a tighter monetary policy and higher interest rates regime in the US. International investors have withdrawn net $11.6 billion of Indian debt and equities from India's markets since late May, 2013.

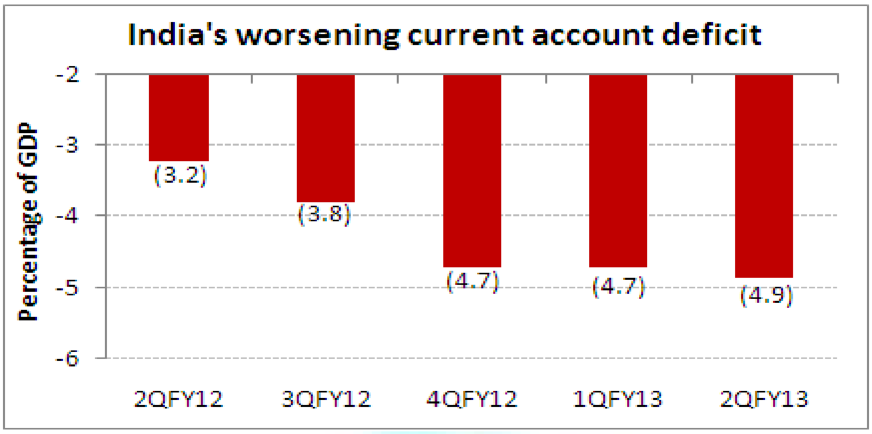
The development and effect of euro crisis penetrated in Indian economy through five major channels. The channels are namely, trade, currency, investment, banking and commodity prices.

1. TRADE AND SERVICES CHANNEL

India is significantly connected with euro zone area in terms of trade. India’s export to euro zone in 2012 was 13% of total Indian exports. The Indian trade gap widened during Q1 of 2013-14 compared with Q1 of 2012-13. Exports contracted in Q1, while gold imports increased significantly. Reflecting global demand conditions, exports contracted in May and June 2013 after recording growth for five consecutive months (since December 2012). With global growth remaining weak, world trade has remained subdued. India’s exports to worst affected countries of EU were expected to decline after the crisis. The exports to Euro zone has contracted since Q1 of financial year 2012 till Q1 of financial year 2013(Table 2). However, exports to Euro zone in Q2 of financial year 2013 showed a positive number indicating positive growth in euro zone. Around one-fifth of India’s merchandise exports and around 10 per cent of India’s commercial services exports are to EU 27 countries. However, the share of those countries worst affected by the crisis-Greece, Portugal and Spain is relatively low in India’s export. Europe has seen a decline in its share in India’s export, down to 19% in 2011-12 from 24.8% in 2001-02. The trade deficit increased to US$ 190.3 billion (10.3 per cent of GDP) in 2012-13 as compared to US$ 183.4 billion (9.8 per cent of GDP) during 2011-12.

Europe accounts for more than one-third of total tourist arrivals in India. Travel receipts have also suffered because of lower tourist arrivals from the euro zone, particularly from the affected countries. The improvement in the trade can be seen due to various policy measure taken by the RBI. India’s exports to Europe and USA have registered a growth of 0.8 per cent and 3.1 per cent respectively in Q1 of 2013-14. : The share of services exports to total exports improved from 31.5 per cent in 2011-12 to 32.2 per cent in 2012-13. Growth of exports from services declined from 30.2 per cent in 2010-11 to 13.1 per cent in 2011-12 and 3.4 per cent in 2012-13.

FIGURE 2: INDIA'S WORSENING CAD



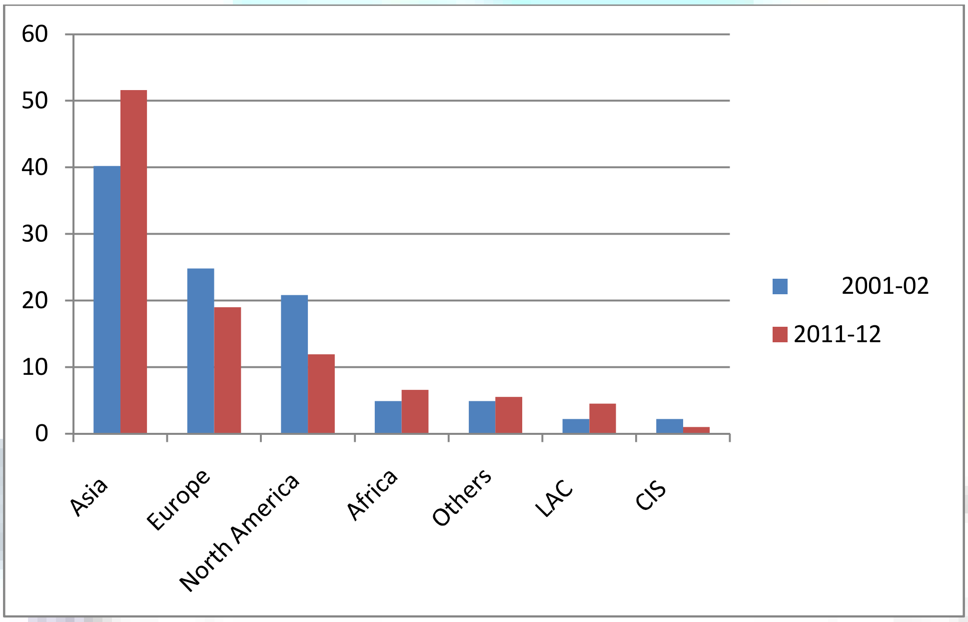
The share of European countries in India's exports of readymade garments, machinery and chemicals is significant. Around 25 percent export of IT/ITES services are to European countries but the exposure to the worst affected countries is relatively less.

TABLE 2: COUNTRY-WISE MERCHANDISE EXPORT GROWTH

Countries	2012				2013		
	Q1	Q2	Q3	Q4	Q1	APRIL	MAY
Brazil	7.5	-7.4	-11.	-6.1	-7.7	5.4	6.0
Hong Kong	-1.1	2.1	4.3	7.4	4.0	9.0	..
China	7.6	10.5	4.5	9.4	18.4	14.7	1.0
Euro Area	-3.0	-12.5	-12.1	-3.4	-3.2	2.5	..
India	4.0	-4.0	-8.5	0.7	4.7	1.7	-1.1
Indonesia	5.3	-8.1	-12.9	-7.2	-6.1	-5.2	..
Malaysia	3.5	-0.4	-4.7	0.7	-3.2	-3.3	-5.8
Russia	16.3	-1.5	-3.6	-3.2	-4.9	-2.3	
Singapore	6.0	-0.6	-5.9	-0.1	-6.8	2.7	1.6
Thailand	-2.9	0.7 -	6.4	16.1	4.4	4.2	..
UK	2.5	3.6	0.3	-2.9	-3.9	1.2	..
US	8.7	5.7	1.1	2.7	0.5	1.8	..

Source: International Financial Statistics, IMF and respective statistical agencies.

FIG. 3: INDIA'S EXPORT DESTINATION

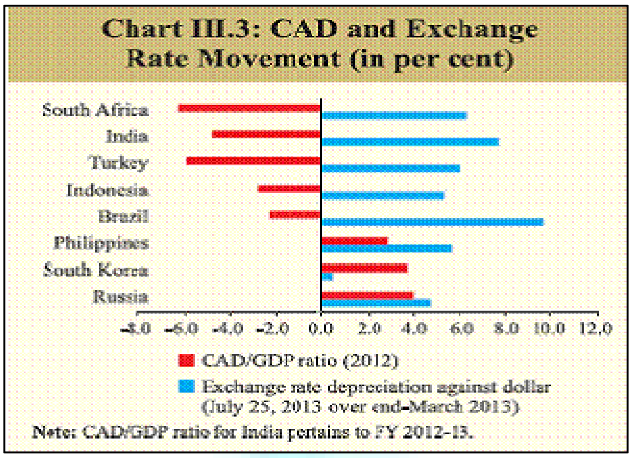


The global factors (such as unfolding of euro zone crisis, the austerity measures in advanced economies, recession in many euro zone countries, risk on/ risk off behaviour of investors and the uncertainty surrounding the future of euro zone) and domestic factors (such as halt in mining activity, supply side bottlenecks in manufacturing) have adversely affected India's balance of payments.

2. CURRENCY CHANNEL

The adverse impact of euro zone crisis would be felt by Indian economy if the Euro depreciated against major world economies including the rupee. In such situation the profit margins of Indian exporters would be negatively impacted. On the other hand, imports would relatively be cheaper and Indian importers especially of machinery and equipment from the European countries would benefit. The appreciation of rupee could also undermine India's export competitiveness. The rupee has fallen 12% against the US dollar since May, 2013. India's current account deficit has increased to 4.9% of India GDP in second quarter of FY13.

FIGURE 4: CAD AND EXCHANGE RATE MOVEMENT



Source: www.rbi.org.in

3. **INVESTMENT CHANNEL**

Euro area is a very significant source of foreign direct investment (FDI) to India. Around 18 per cent of the total FDI into India in 2012-13 was from Euro Zone. As FDI are considered more stable than the foreign institutional investment (FII) flows, therefore the crisis has had a minimal impact on the FDI flows to India. In the initial phase of the crisis, the FDI inflows from euro zone economies dropped from about US$ 3.5 billion in 2009-10 to about US$ 3.1 billion in 2010-11. However, it recovered to US$ 4.2 billion in 2011-12 and around US$ 3.5 billion in 2012-13.

4. **BANKING SECTOR**

The crisis has posed serious challenges for the banking sector. Though trade channel is the dominant channel of transmission of the euro crisis contagion to India, but there will be negative spill overs on India's financial sector as well (Swamy, 2013). The eurozone is an important source of foreign bank loans for developing Asia. The direct impact of the Eurozone crisis on Indian banks is expected to be limited as the Indian banking sector is largely dominated by domestic banks with foreign banks accounting for only 8 per cent of total banking sector assets and 5 per cent of banking sector credit. However, there could be indirect impact on Indian banks due to their exposures to other countries, especially in the Eurozone. According to RBI data, at the end of September 2011, there are only 37 branches and 3 subsidiaries of Indian banks in the European Union, and none of them is in Portugal, Italy, Greece and Spain.

CONCLUSION

Indian and other emerging economies have always suffered because of turmoil in developed economies. The continuous bearish market environment since 2007 sub-prime crisis and growing uncertainties in the euro-zone is hampering the global growth prospects. The negative impact of such crisis on India is creating negative investor sentiments about the performance of Indian economy. India has started taking steps to wave off these negative sentiments and spread a wave of positivity about Indian economy in global market to attract foreign investors. The limit on inflow of foreign direct investment in Indian companies has been increased in a phased manner since 2012 to revive the growth in the economy. The government is also undertaking other initiatives to address structural and infrastructural bottlenecks in the country to boost domestic saving and investment. The immediate concern for India is to reduce the current account deficit from its present high level. Over the medium-term, efforts made to diversify trade towards emerging market and developing economies should be stepped up.

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