International Paper Presentation

on

ECONOMIC GROWTH: ISSUES AND CHALLENGES

25th February 2012

ACUMEN - 2012

Organised by :

Dr. Ambedkar Institute of Management Studies & Research,

Deekshabhoomi, Nagpur

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International Paper Presentation on
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Printed and Published by:

Mrs. Meena Pandey

HIMALAYA PUBLISHING HOUSE PVT. LTD.,

“Ramdoot”, Dr. Bhalerao Marg, Girgaon, Mumbai - 400 004.

Phones: 022-23860170/23863863, Fax: 022-23877178

E-mail: himpub@vsnl.com, Website: www.himpub.com

For:

Dr. Ambedkar Institute of Management Studies & Research,
Deekshaboomi, Nagpur.

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ISBN: 978-93-5051-662-1

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Elevating Priority Sector Through Bank Credit

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ABSTRACT

Agriculture plays an important role in the economic development of India. They depend purely on the agricultural and allied activities. They require money to carry out the farming activities. They spend money during cultivation period and earn money during harvest seasons. In earlier days, for finance, the farmers purely relied on the local money lenders, indigenous bankers, creditors, commission agents etc. and thereafter cooperative banks were introduced and farmers enjoyed out of them. In 1969 the banks were nationalised and the banks were extended their services to the rural population, in order to uplift the farming communities. The banks also introduced lot of financial assistance programmes like PMRY loan, Crop loan, fertilizer loan, crop insurance and the like. The RBI also directs all bankers to provide credit to agriculture liberally for purpose of upliftment of their living standard.

With this background, this paper has prepared to provide the ways to promote credit facilities to agriculture community and add strength to the priority sector.

Keywords: Credit, Priority sector, economic growth.

INTRODUCTION

Agriculture plays an important role in the economic development of India. Agriculture is the source of livelihood of more than 70 per cent of the population in India. To meet the requirement of the growing population and rapid developing economy, agriculture has to grow fast and get modernized. This requires the use of high pay off inputs, adoption of high yielding varieties, fertilizers, plant protection chemicals, modernized equipment and machineries which need huge investment. The rural agricultural sector of the Indian economy is labour abundant, land poor and capital scarce. So it would be very difficult to get the benefits of modernization of agriculture without adequate credit to the farmers at reasonable interest.

The small farmers are the most hapless object of the private money lenders who are free to recover their loans by high handed and attachment of the crop of the poor farmers as well as their personal belongings, land and living residences. Available resource base and the capacity to generate sufficient levels of financial resource within the rural sector particularly in agricultural sector are, however limited at present. Institutional financing viewed from this angle as a principal resource of external finance to support in a planned manner. Institutional credit enables the farmer to procure the necessary money of production and creates contributing to climate for enhanced output. Since institutional credit exerts a push effect and has a catalytic role in development process, provision of adequate, timely and liberal credit to the farmer has become an integral part of the agricultural development policy in India. As a result, agricultural credit service in the country is provided through three main channels, namely, commercial banks, regional rural banks and co-operative banks. Through this source agriculturist can avail credit and mark use into agro business. So in this term credit is help as a ladder to agriculture sector.

In this paper highlights the credit is help to agriculture sector, connotation of priority sector, impression of priority lending, Resolution of priority sector, priority sector segments, effect of lending on bank management.

CONNOTATION OF PRIORITY SECTOR LENDING

Through the priority sector advance a plenty of connotation we can say, therefore here mentioned some of the significance of priority sector lending.

- Priority sector lending support the economy of the country
- It improves the particular area and promotes employment
- It assists the government in reducing unemployment
- Helps to improve the living standards of the nation
- Provide the financial assistance to weaker section
- Promote education by providing financial add to institute
- It improves and promote agriculture sector which is the back bone of the economy
- It creates a balance between assets and liabilities
- The overall impact on the bank management is very pleasant

CREDIT IS LADDER TO AGRICULTURE SECTOR

Credit is an important one for cultivation and it is needed from cultivation to harvest. In between, the farmers require finance for various purposes such as purchasing the fertilizers, pesticides, manures and other allied things. For such kind of activities, in those days, the farmers were depending on the local money lenders, through which they were in trouble and some of them committed suicide due to the higher interest rate and unable to repay the amount. Followed by our Indian government has taken steps to increase the agricultural credit. Its objectives have been to replace moneylenders, to relieve the farmers from indebtedness, and to achieve higher levels of agricultural credit, investment, and output. India's success in replacing moneylenders has been outstanding. Between 1951 and 1971 their share of rural credit appears to have dropped from more than 80 per cent to 36 per cent. Still, institutional credit is far from reaching all farmers. Only about a quarter of cultivators borrow, and not more than 2 per cent take out long-term loans.

SYNOPSIS OF PRIORITY SECTOR

At a meeting of the national credit council held in July 1968, it was emphasized that commercial banks should increase their involvement in the financing of priority sectors like agriculture and allied activities. The description of the priority sector was later in 1972 on the basis of this report submitted by the informal study group on statistics relating to advance to the priority sectors constituted by the reserve bank in May 1971. On the basis of this report, the reserve bank prescribed a modified return for reporting priority sector advances and certain guidelines were issued in this connection of priority sector.

Although initially there was no specific target fixed in respect of priority sector lending, in November 1974 the banks were advised to raise the share of these sector in their aggregate advances to the level of 33 1/2 per cent by March 1979. At a meeting of the union finance minister with the chief executive officers of public sector banks held in March 1980, it was agreed that banks should aim at raising the proportion of their advances to priority sector to 40 per cent by March 1985. Subsequently on the basis of the recommendation of the working group on the modalities of implementation of priority sector lending and the twenty points economic programmed by banks, all commercial banks were advised to achieve the target of priority sector lending at 40 per cent of aggregate bank advances by 1985. Sub targets were also specified for lending to agriculture and the weaker sections within the priority sector.

Since then, there have been several changes in the scope of priority sector lending and the target and sub targets applicable to various bank groups. On the basis of the recommendations of the internal working group, set up in reserve bank to examine, review and recommend changes, if any, in the existing policy on priority sector lending including the segments constituting the priority sector, target and sub-targets, etc., and the comments/suggestions received thereon from banks, financial institutions, public and the Indian banks association (IBA), it has been decided to include only those sectors that impact large segments of population and the weaker sections, and which are employment-intensive, as part of the priority sector.

PURPOSE OF PRIORITY SECTOR LENDING

The banks are issue the lending on priority sector in the following purpose.

- Improve the economic condition of the country.
- Facilitate the community by the direct and indirect finance to agriculture people.
- Upliftment of living standard of rural and agricultural people
- The setup the more small industry in the rural area
- Generation employment in the rural people
- Reduction of mandatory credit to a large number of sectors and sections, including marginal farmers, cottage industries, small traders and services and low income housing incentives.
- Improve credit flow to small scale industries and food crop agriculture as well as temporary credit.
- Assure credit to new industries and new professions by the non- poor section.
- Improve the life quality of weaker section.

SEGMENTS ON PRIORITY SECTOR LENDING

Priority Sectors

The Reserve Bank of India classified in the following categories is priority sector namely, Agricultural and allied activities.

- Development of Dairy and Animal Husbandry.
- Development of Fisheries.
- Development of Poultry, Piggery etc.
- Development and maintenance of Stud farms, Beekeeping, Sericulture, etc. However, breeding of race horses cannot be classified under this head.
- Purchase of Bullock Carts, Camel Carts, Pack Animals etc.
- Distribution of inputs for allied activities such as poultry feed, cattle feed, etc.
- Small Scale Industrial Units, Equipment/System for development of new and renewable source of energy, etc.
- Small Scale and Ancillary Industries
  - Flaying and tanning
  - Leather goods
  - Pottery
  - Hand pounding of paddy and cereals
  - Rice Mills, including flour mills and bakeries
  - Canning of fruits and vegetables
  - Manufacturing and processing of agricultural and Marine products and forest produce including beverage industries
  - Other village industries such as carpentry and black-smithy, bee-keeping and honey and honey products

- New and renewable sources of energy
  1. Flat plate solar collectors
  2. Concentrating and pipe type solar collectors
  3. Solar cookers
- Cottage industries, Khadi & Village Industries, Artisans are those units
- Tiny industries are those units whose investment in plant & machinery is upto ` 25 lakh irrespective of location of the unit.
- Small Scale Service & Business (Industry Related) Enterprises (SSSBEs).
- Food and agro based processing and forestry
- Loans and advances by primary (urban) co-operative banks
- Loans and advances by scheduled primary (urban) co-operative banks
- Leasing & Hire Purchase Finance by Scheduled PCBs
- Advances to Small Road and Water Transport Operators
- Retail Traders
- Small Business Enterprises
- Agents selling goods on commission basis
- Booking, clearing and forwarding agents
- Estate agents
- Press cum publishing houses, etc.

BANK CREDIT TO PRIORITY SECTOR

In India below given the total amount spend by commercial banks to agriculture and allied activities in the years from 2002 to 2011, in this amount utilized by farmers in various agriculture activities such as buy a seeds, fertilizers, pesticides, cultivation equipment's, etc.

Table 1: The Banks Credit to Priority Sector

(Amount in crore)

Sl. No	Years	Amount	Percentage
1	2002	404354	-
2	2003	399494	1.20
3	2004	402222	- 0.68
4	2005	396394	1.44
5	2006	395386	0.25
6	2007	406404	- 2.78
7	2008	411816	-1.33
8	2009	421316	-2.30
9	2010	438129	-3.99
10	2011	438340	-0.04

Source: RBI bulletin

Table 1. Renders credit issued by the scheduled commercial banks in India during one decade. All the years' credit issuing capacity was increased year by year in banks, except 2005 and 2006. In those years alone decreased credit facility, remaining all the years going ladder from 2002 to 2011.

Afore said all segments of priority sectors, the bankers are issuing the credit, in order to make use of it all advances by rural people.

OUTCOME PRIORITY SECTOR PRODUCTS IN INDIA

Farmers need credit for buying all agricultural inputs such as seeds, fertilizers etc. in order to all commercial banks are issued advance to an individual for agriculture cultivation. Through the credit utilized by the farmers following out comes of agriculture product, it shows below.

Table 2: Few Items of Priority Sector Product - Outcome from 2002 To 2011

(Mln. tns)

S. No.	Agriculture Production	2002-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11
1	Food grain	174.8	213.2	198.4	208.6	217.3	230.8	234.5	218.2	229.7
2	Rice	71.8	88.5	83.1	91.8	93.4	96.7	99.2	89.1	90.0
3	Wheat	65.8	72.2	68.6	69.4	75.8	78.6	80.7	80.7	81.7
4	cereals	163.6	198.3	185.2	195.2	203.1	216.0	219.9	203.6	215.9
5	pulses	11.1	14.9	13.1	13.4	14.2	14.8	14.6	14.6	16.0
6	Kharif Food grain	87.2	117.0	103.3	109.9	110.6	121.0	118.1	103.8	NA
7	Rabi food grains	87.5	96.2	95.1	98.7	106.7	109.8	116.3	114.4	NA
8	Oilseeds	14.8	25.2	24.4	28.0	24.3	29.8	27.7	24.9	28.2
9	Sugarcane	287.4	233.9	237.1	281.2	355.5	348.2	285.0	277.8	321.0

Source: Survey of Indian Industry 2011

The above table enlightens that, the outcome of some items of agriculture production past 10 years. In which a selected agricultural commodities are taking into consideration.

IMPACT OF BANKS ON AGRICULTURE LENDING

The agricultural credit that has been pursued for three decades and has clearly benefit current borrowers and farm households formerly indebted to moneylenders. It has also encouraged fertilizer use and investment in agriculture. It has been less successful in generating viable institutions and has failed to generate agricultural employment. The policy's costs to India's government have been high as portfolio losses associated with poor repayment ultimately have to be borne by the government or one of its institutions under optimistic assumptions. The benefits of the agricultural income are at the best not more than 13 per cent higher than the cost to the government of the extra agricultural credit. If assumptions about the cost of supplying the credit and about repayment rates are less optimistic, the social costs and the costs to the government of providing the credit would have exceeded the benefits in agricultural income. The expansion of commercial banks to rural areas paid off in farm growth, employment, and rural wages.

CONCLUSION

This paper concluded that the banks are done by wondering job. Priority sector lending has a great impact on bank management. This is the powerful tool to support the economy of the country and the nation as well. Despite of the banks should increase the area of lending performance, as it is the effective way to support the economy and to reduce the unemployment, and promote industry. And the amount for lending should be increase so that the maximum community can be supported to individual in setting their business as well as priority sector activities.

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ISBN: 978-93-5051-662-1

2 Growth in Indian Agriculture

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ABSTRACT

This paper highlights India's productivity growth in the agricultural sector in the context of globalization. It is one of the measures of economic growth which is given by productivity growth as it forms the basis for improvements in real incomes and welfare. The concept of productivity growth gained importance for sustaining output growth over the long run as input growth alone is insufficient to generate output growth because of diminishing returns to input use.

The researcher has tried to study the growth of Indian agriculture in order to know the growth in terms of productivity, infrastructure, irrigation and power facility, use of new technologies and the various sources available for the finance.

Keywords: Agriculture, Productivity, Infrastructure, Irrigation system, New technologies and Sources of finance.

Objectives

To know agricultural growth in terms of infrastructure and latest technology.

To study the different factors of expenses of agriculture.

To study the growth in productivity.

To study the demand of exports of agricultural products.

To know about different sources of loans available for agriculture.

INTRODUCTION

India's record of progress in agriculture over the past four decades has been quite impressive. The agriculture sector has been successful in keeping pace with rising demand for food. The contribution of increased land area under agricultural production has declined over time and increases in production in the past two decades have been almost entirely due to increased productivity.

Contribution of agricultural growth to overall progress has been widespread. Increase productivity has helped to feed the poor, enhanced farm income and provided opportunities for both direct and indirect employment. The success of India's agriculture is attributed to a series of steps that led to availability of farm technologies which brought about dramatic increases in productivity in 70s and 80s often described as the Green Revolution era.

The major sources of agricultural growth during this period were the spread of modern crop varieties, intensification of input use and investments leading to expansion in the irrigated area. In areas where 'Green Revolution' technologies had major impact, growth has now slowed. New technologies are needed to push out yield frontiers, utilize inputs more efficiently and diversify to more sustainable and higher value cropping patterns.

On the one hand agricultural research will increasingly be required to address location specific problems facing the communities on the other the systems will have to position themselves in an increasingly competitive environment to generate and adopt cutting edge technologies to bear upon the solutions facing a vast majority of resource poor farmers.

In the past decade, the country has witnessed accelerated economic growth, emerged as a global player with the world’s fourth largest economy in purchasing power parity terms, and made progress towards achieving most of the Millennium Development Goals.

India continues to grow at a rapid pace, although the government recently reduced its annual GDP growth projection from 9% to 8% for the current fiscal year ending March 2012. The slowdown is marked by a sharp drop in investment growth resulting from political uncertainties, a tightening of macroeconomic policies aimed at addressing a high fiscal deficit and high inflation (going well beyond food and fuel prices), and from renewed concerns about the European and US economies. Although the Government was quite successful in cushioning the impact of the global financial crisis on India, it is now clear that a number of MDG targets will only be met under the Twelfth Five Year Plan (2012-17).

RESEARCH METHODOLOGY

The study is based on secondary as well as primary data. For the purpose of this study, the researchers have selected random and purposive sampling method. Primary data has been collected with the help of questionnaire. For this study researcher has taken the sample of 75 respondents out of which 25 are small, 25 are medium and 25 are large farmers. The selection of sample is made on the basis of land holding. To collect the additional information Observation method is adopted by the researchers.

Limitations

- The study is limited to 75 farmers.
- The study is limited to the farmers of Nagpur district.

Review of Literature

Howard's (1940) Agricultural Testament draws attention to the destruction of soil and deals with the consequences of it. It suggests methods to restore and maintain the soil fertility. The criticism of the agriculture research and examples of how it had to be carried out to protect soil and its productivity are discussed in detail.

Sankaram Ayala (2001) is of the view that almost all benefits of high yielding varieties based farming accrue mostly in the short term and in the long term they cause adverse effects. There is an urgent need for a corrective action.

Kalirajan and others (2001) explain that two important reasons for the slowdown are that there was no major breakthrough in developing new high-yielding varieties during the 1990s and there was a decline in the environmental quality of land which reduced the marginal productivity of the modern inputs.

Gulati and Sharma (1995) show that the input subsidy in per cent of GDP increased from 2.13 in the triennium ending 1982-1983 to 2.73 in the triennium ending 1992-1993. But the benefits of these subsidies have accrued to only certain classes of farmers in some regions cultivating irrigated crops. Furthermore, highly subsidized prices of inputs such as irrigation water and electricity for pump sets have encouraged cultivation of water-intensive crops, over-use of water, ground water depletion/ salinity and water logging in many areas. Subsidy for nitrogen fertilizer on the other hand has resulted in nitrogen phosphorous potassium imbalance and acted as a disincentive for use of the environmentally friendly organic manure.

Agricultural Growth in Terms of Infrastructure and Latest Technology

The development of physical and institutional infrastructure, like investment in irrigation, and scientific research and extension is a precondition for the adoption and diffusion of new agricultural technology. This, in turn, increases the income of all categories of cultivators as also of landless agricultural laborers. Not only that, the existence of infrastructure like roads, communications and transportation is considered to be critical for the growth impulse generated by agricultural development through input-output linkages. The increased income of cultivators and landless labour leads to a diversification of their consumption basket, thereby giving fillip to consumer goods industries and services.

The diffusion of agricultural technology is also facilitated by infrastructural development in transport and marketing. Travel by extension workers becomes much easier. Farmers can easily move to the demonstration farms and interact with the scientists. The access to modern inputs also becomes easier. Farmers can readily obtain high yield variety (HYV) seeds and fertilizers. Similarly, they can also take advantage of the repair facilities for the implements in market towns and other bigger towns.

The enhanced mobility of labour induced by infrastructural development, such as the opening up of rural roads, helps the rural poor in commuting to work and travelling to jobs where the wages are relatively higher. It also helps small and marginal farmers in moving away from their villages, where manual work is looked down upon, to faraway places where they enjoy relative freedom from such inhibitions.

Transport development also helps the small and marginal farmers to grow vegetables and other high value crops on their tiny plots and to find a market for these in nearby towns. Linkages also help the richer sections to divert their investment from limited credit markets to non-agricultural activities in rural areas or in towns. This also helps in providing additional employment to rural labour. The reduction of marketing margins has far-reaching consequences for the comparative advantage enjoyed by a country and for its competitive strength in the world economy.

Again, access to institutional services like health care, education and credit becomes much easier. This helps not only in increasing productivity but also in reducing credit constraints which are the main instrument of exploitation in the rural setting. Thus, by increasing the income of the rural people, infrastructural development can also be instrumental in breaking the stranglehold of moneylenders and reducing the impact of interlocking between land, labour and credit market.

Finally, changes in prices and expansion of demand brought with the passage of time and accelerated by macro-economic reforms undertaken in recent years, the Institutional arrangements as well as the mode of functions of bodies responsible for providing technical underpinning to agricultural growth are proving increasingly inadequate.

Changes are needed urgently to respond to new demands for agricultural technologies from several directions. Increasing pressure to maintain and enhance the integrity of degrading natural resources, changes in demands and opportunities arising from economic liberalization, unprecedented opportunities arising from advances in biotechnology, information revolution and most importantly the need and urgency to reach the poor and disadvantaged who have been by passed by the green revolution technologies.

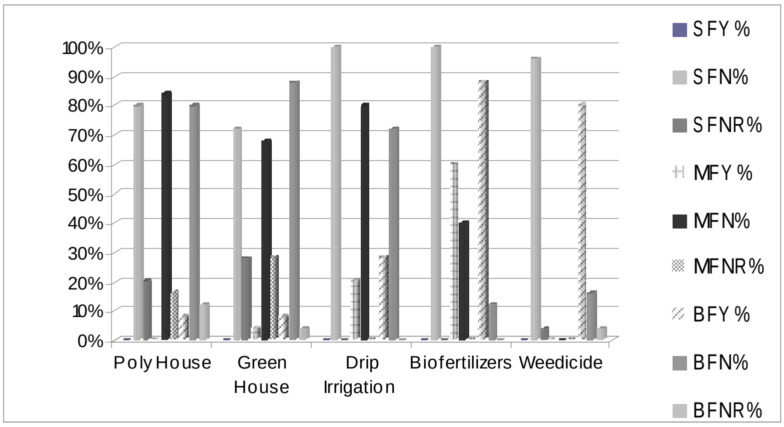
Table 1: Modern Technology Used by Farmers

		Poly House	Green House	Drip Irrigation	Biofertilizers	Weedicide
Small Farmers	Yes	- (0%)	- (0%)	- (0%)	- (0%)	- (0%)
	No	20 (80%)	18 (72%)	25 (100%)	25 (100%)	24 (96%)
	NR	05 (20%)	07 (28%)	- (0%)	- (0%)	1 (4%)
Medium Farmers	Yes	- (0%)	01 (4%)	05 (20%)	15 (60%)	- (0%)
	No	21 (84%)	17 (68%)	20 (80%)	10 (40%)	- (0%)
	NR	04 (16%)	07 (28%)	- (0%)	- (0%)	- (0%)

Big Farmers	Yes	02 (8%)	02 (8%)	07 (28%)	22 (88%)	20 (80%)
	No	20 (80%)	22 (88%)	18 (72%)	03 (12%)	04 (16%)
	NR	03 (12%)	01 (4%)	- (0%)	- (0%)	01 (4%)

Source: Primary Data Collection

New technologies or methods adopted to increase the productivity for your farm?



SF-Small farmers, MF= Medium farmers, BF= Big farmers, Y=Yes, N=No

From the above table and graph it is inferred that none of the small farmers adopted modern technology for cultivation of crops. Out of 25 respondents of medium farmers 5 i.e. 20% are using drip irrigation technology. Out of the 25 respondents of large farmers 7 i.e. 28% large farmers are using drip irrigation technology.

None of the small farmers adopted modern technology and method for cultivation. Out of 25 large farmers only 8% i.e. only 2 respondents use the technology of poly house for cultivation of crops.

Out of the total 25 medium farmers only 1 i.e. 4% are using green house technology. Regarding biofertilizers and weedicide maximum 88% and 80% respectively big farmers are using this technology.

On the basis on secondary data it is found that in western Maharashtra small farmers holding a small piece of land of 2 acres also using the technologies of drip irrigation so the picture of west Maharashtra in entirely different from Vidarbha region. In west Maharashtra 90% farmers of all categories adopted drip irrigation and Vidarbha only 20% to 22% farmers are adopting this technology.

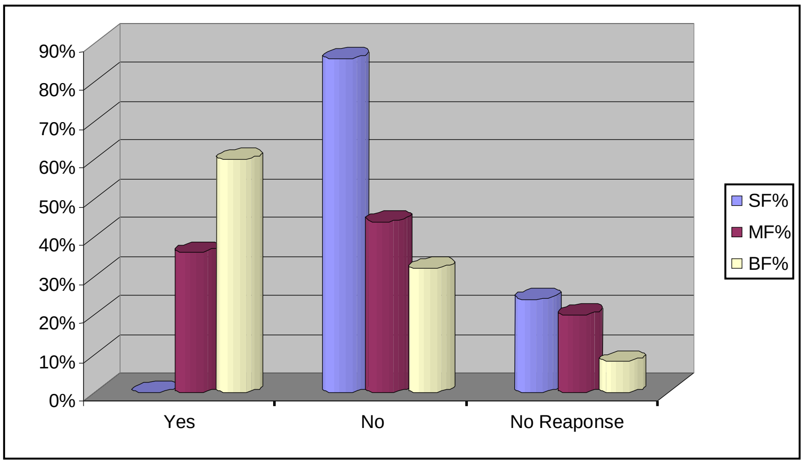
On the basis of above interpretation it can be concluded that the agricultural production in west Maharashtra is more as compared to Vidarbha region because of the irrigated land.

Table 2: Government Subsidy for Using Modern Technology

	Small Farmers	**%**	**Medium Farmers**	**%**	**Big Farmers**	**%**
Yes	-	0	09	36	15	60
No	19	86	11	44	08	32
No Response	06	24	05	20	02	08
Total	25	100	25	100	25	100

Source: Primary Data Collection

Whether government agencies support you for using modern technology in your farm?



The farmers holding land below 5 acres do not adopt the modern technology for cultivation of crops and therefore there is no question for the support of government subsidy. 100% medium farmers who have adopted modern technologies or new methods for cultivation and they need financial support from co-operative society and nationalized banks. And government is providing 50% subsidy modern technology

When the question was asked to the farmers whether the government is giving support for using modern technology in your farm, In an answer to this question maximum i.e.90% new technology and methods i.e. Poly House, Green House, Drip Irrigation, Biofertilizer, Weedicide, government is providing subsidy upto 50% and buying agricultural equipment like tractor government is providing 30% subsidy.

When new technology was adopted regarding drip irrigation initially government was providing 90% subsidy and afterwards it was reduced to 50%.

Initially farmers were not aware about the benefits of drip irrigation and therefore they have not adopted drip irrigation technique even though government was providing huge subsidy. Now farmers want to use drip irrigation in their farms but they cannot afford as government has changed the policy regarding the subsidy which was earlier provided at the time of purchasing the equipment now this subsidy is be given after purchasing the equipment. Hence, the Indian farmers are finding financial difficulty to purchase equipments at their own cost and adopt in their farm.

The Different Items of Expenses of Agriculture

When the question was asked to the respondents of all categories the following expenses are incurred in cultivation of crops Land preparation, Seed cost, Sowing cost, Fertilizer cost, Inter cultivation/Weeding, Plant protection cost, Irrigation cost, Harvesting cost, Threshing cost, Marketing cost, and other costs etc.

Of all these land preparation expenses, seed purchasing expenses, and expenses on insecticides are fixed according to the area of land. Out of the rest of the expenses, expenses incurred on labour holds the major share of the expenses. Then all the rest of the expenses are fluctuating.

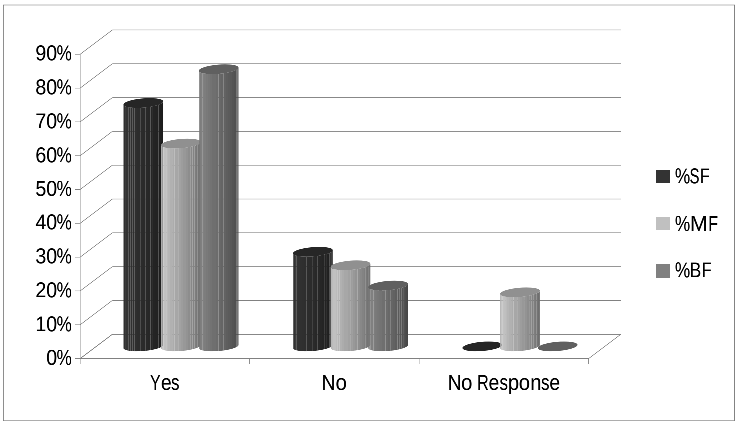
Table 3: Increase in Productivity

	Small Farmers	**%**	**Medium Farmers**	**%**	**Big Farmers**	**%**
Yes	18	72	15	60	21	82
No	07	28	06	24	04	18

No Response	-	0	04	16	-	0
Total	25	100	25	100	25	100

Source: Primary Data Collection

Do you think is there any increase in productivity for the same crop as compared to the previous year?



From the above table it is obvious that 72% i.e.18 small farmers responded that there is a gradual increase in production if the same crop is cultivated in same area of land. Most of the farmers are adopting organic farming method and this helps to maintain the structure and fertility of land. Hence there is gradual increase in productivity.

82% i.e.21 Big farmers and 60% i.e. 15 Medium farmers felt that there is gradual increase in production just because they adopted modern technology of drip irrigation.

Demand of Exports of Agricultural Products

The strategies and action plan for increasing agricultural exports which emerged out of the deliberations are summarized below:

Cereals

Since compromise on food security/self-sufficiency is undesirable, the export of strategic cereals should be planned very carefully.

- Wheat being a major commodity of agricultural exports from developed countries, India will have to face a tough competition from them. Future projections suggest continued upsurge in domestic wheat consumption and relatively small surpluses.
- While continuing the export of *basmati* rice targeted mostly to Middle East and to NRIs in Europe and USA, the limited scope for accelerating the export of *basmati* and other scented varieties will have to be kept in mind.
- The potential market for rice lies in the Southeast Asian countries like Indonesia, Malaysia and the Philippines and in East Asian countries like Japan and South Korea and also in Sub-Saharan countries. Rice exports to these countries from Thailand have reached a plateau and India has the potential to enter these markets provided we succeed in developing.

Export from Nagpur Region

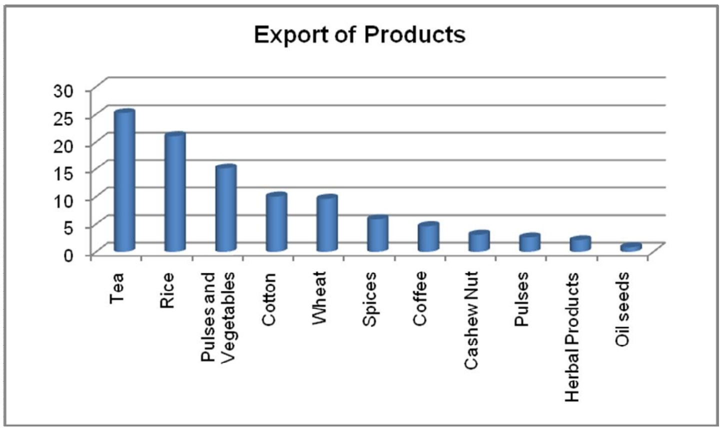
None of the farmers of all the categories from Nagpur region are not exporting any product because they said that their product is not as per the export quality standards, i.e. size, colour, Shining, chemical deposit on the surface etc.

But on the basis of secondary data it is found that India is exporting mangoes and grapes and maximum tea, rice, pulses and vegetables, cotton, wheat, spices coffee, cashew nut, pulses, herbal products and oil seeds.

Table 4: Export of Products

Sr No.	Export	Tonnes	Percentage
1	Tea	3000	25.2
2	Rice	2500	21.0
3	Pulses and Vegetables	1800	15.1
4	Cotton	1200	10.0
5	Wheat	1150	09.6
6	Spices	700	05.9
7	Coffee	550	04.6
8	Cashew nut	375	03.1
9	Pulses	300	2.6
10	Herbal products	250	2.1
11	Oil seeds	100	0.8
	Total	**11925**	**100.00**

Source: FiBL & IFOAM 2011



From the secondary data available for the export of products from India it is inferred that tea is exported in maximum 3000 tonnes i.e. 25% of total export it is followed by rice 21%, pulses and vegetables 15%, cotton 10%, wheat 9.6% and the rest in form of spices and dry fruits.

Indian organic products are mainly exported to Europe (Netherlands, United Kingdom, Germany, Belgium, Sweden, Switzerland, France, Italy, Spain, etc.), USA, Canada, Saudi Arabia, UAE, Japan, Singapore, Australia and South Africa.

FINANCIAL SUPPORT

Farm Loans

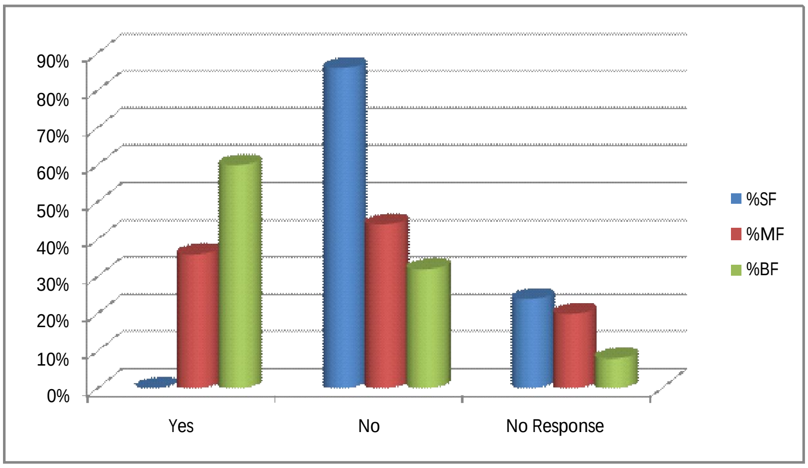
Farmers may apply for private loans, also called farm loans, with financial institutions such as banks, insurance companies and mutual funds, if they are not listed on securities exchanges or funding costs on such exchanges are high. They receive funds from lenders and agree to pay fixed amounts periodically, usually monthly or quarterly. Lenders verify farmers' financial information, business-performance indicators, operating metrics and working capital constraints to grant loans.

Table 5: Additional Finance

	Small Farmers	%	Medium Farmers	%	Big Farmers	%
Yes	-	0	09	36	15	60
No	19	86	11	44	08	32
No Response	06	24	05	20	02	08
Total	25	100	25	100	25	100

Source: Primary Data Collection

Do you require additional finance for farming?



When the question is asked to the respondents **whether they require additional finance for farming** so in an answer to this question-

The farmers are availing the facility of loan according to their requirements .The farmers holding land below 5 acres i.e. small farmers do not adopt the modern technology for cultivation of crops and therefore there is no question for additional finance and the support of government subsidy.

36% Medium farmers and 60% large farmers have taken additional financial support and said that the additional finance is provided by the bank on the basis of the land area and type of crops. If it is irrigated land then per acre finance is sanctioned at the rate of ` 12,000 per acre.

Again the finance is disbursed on the basis of the crop cultivation in irrigated land. If cotton is cultivated in irrigated land then the finance at the rate of ` 12,000 otherwise for non-irrigated land ` 8,000 per acre loan will be sanctioned by the bank.

For the cultivation of orange bank is providing the loan on the basis of trees. The rate of loan for per orange tree is 180.

In unirigated land soyabean is 6000. It can be concluded that the finance is disbursed on the basis of land area and as well as considering the type of crop.

Suggestions and Recommendations

India's rural areas are the battleground in the fight against poverty - they are home to nearly three-quarters of the country's poor. Rising farmers' suicides, the slowdown in agricultural growth, the apparent fall in rural nutrition and calorie-intake, and the slowing of the decline in poverty all trigger the need for introspection.

- Remove the regulatory barriers to domestic marketing and trade. Manage water, technology and land better. Water reforms will be crucial to provide much greater farmer-centered operations, better maintenance of irrigation systems, and cost-recovery.
- To start the export of agricultural products like oranges farmers have to take care to increase the quality of the product as per the standard norms of exportable goods. In this regards government has to frame certain agricultural policies in favour of farmers to motivate them to produce exportable goods.
- To adopt the new technology of drip irrigation government has to provide subsidy to the farmers at time of purchasing the required equipments which was adopted earlier.
- The rate to subsidy of 50% should be increased to 75% so that the farmers from Vidarbha region can avail the facility and convert their unirrigated land into irrigated land.

CONCLUSION

On the basis of above interpretation it can be concluded that the agricultural production in west Maharashtra is more as compared to Vidarbha region because of the irrigated land.

Poly House, Green House, Drip Irrigation, Biofertilizer, Weedicide, government is providing subsidy upto 50% and buying agricultural equipment like tractor government is providing 30% subsidy.

82% i.e.21 Big farmers and 60% i.e. 15 Medium farmers felt that there is gradual increase in production just because they adopted modern technology of drip irrigation.

On the basis of secondary data it is found that India is exporting mangoes and grapes and maximum tea, rice, pulses and vegetables, cotton, wheat, spices coffee, cashew nut, pulses, herbal products and oil seeds. Indian organic products are mainly exported to Europe (Netherlands, United Kingdom, Germany, Belgium, Sweden, Switzerland, France, Italy, Spain, etc.), USA, Canada, Saudi Arabia, UAE, Japan, Singapore, Australia and South Africa.

On the basis of the analysis of data it can be concluded that growth in production is high. Overall growth in Indian agricultural products is more as compared to the other countries of the world. Productivity gains can be obtained from increased demand for exports and agricultural products need to be priced competitively. In other words, productivity growth is necessary to lower the costs of production.

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ISBN: 978-93-5051-662-1

3 Technology Transfer in Agriculture Helps Rural Development in India

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ABSTRACT

India's massive agricultural sector employs about 60% of the population, yet accounts for only about 17% of total GDP. Growth in agriculture has stagnated relative to other sectors: last year the agricultural sector grew at a rate of 2.7%, relative to 11% growth in both the service and industry sector. Poverty in India is predominantly a rural phenomenon. About 70% of the population, and about 75% of the poor, live in rural areas and most depend on agriculture. Agriculture provides livelihood to 60 percent of the rural people and remains vital for food security. In recent years, the slowdown in agricultural growth has become a major cause for concern. The Government of India places high priority on reducing poverty by raising agricultural productivity. The World Bank too is assisting the country to build a solid foundation for a highly productive and diversified agricultural sector. Agricultural extension in India is at the crossroads.

Agricultural trends are changing everyday with the development of new techniques. To make the best of emerging technologies, it is vital that agriculturalists receive continuous education and training. This training is provided on topics such as pesticide management, use of better seeds, irrigation and use of fertilizers among many others. Equally important is the process of agricultural research and development to create cheaper and better farm practices. The Central and State Governments have made major contributions in this area. Krishi Darshan is an agriculture related television program that is broadcast by the government on its exclusive terrestrial television network - Doordarshan. It is a half hour program that is run five days a week at 6.30 pm. The content is created in collaboration with the Ministry of Agriculture, Government of India, under the Mass Media Support to Agriculture Extension Scheme. Krishi Darshan includes features, documentaries, and success stories of farmers, research inputs, quizzes, crop seminars and a live phone in program. It covers various aspects of agriculture and related activities like horticulture, animal husbandry, dairy and rural life. The Green Revolution has been the cornerstone of India's agricultural achievement, transforming the country from one of food deficiency to self-sufficiency. While recognizing the impact of the Green Revolution in imparting dynamism to the agriculture sector, it must be recognized that the Green Revolution remained restricted to the well-endowed irrigated areas of the country.

DEFINITION OF AGRICULTURE

Much has changed in India in the last two decades. One is the way concern for the farmer seems to have fallen off the political agenda, and the pages of newspapers. Go through a week of any major newspaper in India and see how many times you find the words and phrases – farmer, rabi, kharif, rain-fed, rural indebtedness, fractured land-holdings, scarcity of seeds, procurement price.

HISTORY OF AGRICULTURE IN INDIA

Indian agriculture began by 9000 BCE as a result of early cultivation of plants, and domestication of crops and animals. Settled life soon followed with implements and techniques being developed for agriculture. Double monsoons led to two harvests being reaped in one year. Indian products soon reached the world via existing trading networks and foreign crops were introduced to India. Plants and animals — considered essential to their survival by the Indians — came to be worshiped and venerated. The beginning of 'agro' or 'agriculture' marks the beginning of 'civilized' or 'sedentary' society. Climate change and increase in population during the Holocene Era (10,000 BC onwards) led to the evolution of agriculture. During the Bronze Age (9000 BC onwards), domestication of plants and animals transformed the profession of the early homosapiens from hunting and gathering to selective hunting, herding and finally to settled agriculture. Eventually the agricultural practices enabled people to establish permanent settlements and expand urban based societies. Cultivation marks the transition from nomadic pre-historic societies to the settled neolithic lifestyle some time around 7000 BC.

As per the modern definition of agriculture which would be" an aggregate of large scale intensive cultivation of land, mono-cropping, organized irrigation, and use of a specialized labor force", the title "inventors of agriculture" would go to the Sumerians, starting ca. 5,500 BC.

Technological Evolution

- Originally fields were cleared of weeds and prepared for planting by hand at great effort, using primitive hoes or digging sticks.
- The invention of the scratch plow (also called 'plough') about 6,000 years ago was a great labor-saving device for humans - the beginning of systematic substitution of other forms of energy, in this case animal power, for human muscles.
- The Muslim Farmers in North Africa and the Near East of the Medieval world are credited with inventions of extensive irrigation based on hydraulic and hydrostatic principles such as norias, water mills, water raising machines, dams and reservoirs.

- The Renaissance saw the innovation of the three field system of crop rotation and wide spread usage of the moldboard plow.
- The early phase of Industrial Revolution witnessed new agricultural practices like enclosure, mechanization, four-field crop rotation and selective breeding.
- The science-driven innovations of 19th and 20th centuries led to the mechanization of the cultivation, i.e. the use of tractors.

Green Revolution

Policy makers and planners, in order to address the concerns about national independence, security, and political stability realized that self-sufficiency in food production was an absolute prerequisite. This perception led to a program of agricultural improvement called the Intensive Agriculture District Programme (IADP) and eventually to the Green Revolution. The National Bank for Agriculture and Rural Development (NABARD) was set up. All these steps led to a quantum jump in the productivity and production of crops.

White and Yellow Revolution

The Green revolution generated a mood of self-confidence in our agricultural capability, which led to the next phase characterized by the Technology Mission. Under this approach, the focus was on conservation, cultivation, consumption, and commerce. An end-to-end approach was introduced involving attention to all links in the production-consumption chain, owing to which progress was steady and sometimes striking as in the case of milk and egg production.

Present Times

Indian agriculture continues to face internal and external challenges. While monsoon dependence fragmented land-holding, low level of input usage, antiquated agronomic practices, lack of technology application and poor rural infrastructure are some of the key internal constraints that deter a healthy growth, while subsidies and barriers have been distorting international agricultural trade, rendering agri-exports from developing nations such as India uncompetitive.

The objective of every policy initiative has been to make Indian agriculture globally competitive — by investing it with the ability to produce globally acceptable quality at globally comparable cost.

DEFINITIONS OF FARMING

Farming can be defined as-

Pertaining to agriculture; devoted to, adapted to, or engaged in, farming; as, farming tools; farming land; a farming community working the land as an occupation or way of life; "farming is a strenuous life"; "there's no work on the land any more".

Problems Encountered by the Farmers

Slow agricultural growth is a major concern for policymakers as some two-thirds of India's population depend on rural employment for their livelihood Current agricultural practices are neither economically nor environmentally sustainable and India's yields for many agricultural commodities are low. Poorly maintained irrigation systems and almost universal lack of good extension services are among the factors responsible. Farmers' access to markets is hampered by poor roads, rudimentary market infrastructure, and excessive regulation.

The low productivity in India is a result of the following factors-

- According to World Bank's "India: Priorities for Agriculture and Rural Development", India's large agricultural subsidies are hampering productivity.
- Enhancing investment. Over regulation of agriculture have increased costs, price risks and uncertainty. Government intervenes in labor, land, and credit markets. India has inadequate infrastructure and services. World Bank also says that the allocation of water is inefficient, unsustainable and inequitable. The irrigation infrastructure is deteriorating.
- Illiteracy, general socio-economic backwardness, slow progress in implementing land reforms and inadequate or inefficient finance and marketing services for farm produce.
- The average size of land holdings is very small (less than 20,000 m^2) and is subject to fragmentation, due to land ceiling acts and in some cases, family disputes. Such small holdings are often over-manned, resulting in disguised unemployment and low productivity of labor.
- Adoption of modern agricultural practices and use of technology is inadequate, hampered by ignorance of such practices, high costs and impracticality in the case of small land holdings.
- Irrigation facilities are inadequate, as revealed by the fact that only 52.6% of the land was irrigated in 2003–04, which result in farmers still being dependent on rainfall, specifically the Monsoon season. A good monsoon results in a robust growth for the economy as a whole, while a poor monsoon leads to a sluggish growth. Farm credit is regulated by NABARD, which is the statutory apex agent for rural development in the subcontinent.

Modern Farming Techniques for Agriculture in India

The induction of new machinery and techniques have transformed the agricultural practice both in rural and as well as urban localities. Equipments of present day enable the agriculturists to use the modern techniques to get high yields and returns.

Button Mushroom Cultivation

The process of cultivation of button mushrooms is known as Button Mushroom Cultivation. Button mushrooms form an important ingredient in many culinary preparations.

Liquid Seaweed Fertilizer

The process of preparation of Liquid Seaweed Fertilizer includes the manufacture of liquid fertilizer from seaweeds, which contain nutrients and trace elements that enhance plant growth. It can be used in the form of foliar sprays or can be directly applied to the soil in the form of a bio fertilizer.

Grain Storage Bin

It is a process of designing and construction of small capacity grain storage bins. These bins can be used for storage of food grains in rural areas. Of late tremendous improvements that have been made in traditional grain storage structures.

Paddy Thresher-Cum-Winnower

These are used for threshing and winnowing of paddy by paddy farmers. The machine consists of a rotatory drum, which has spikes attached to it. These spikes rotate at a speed of about 800 RPM and the paddy coming in contact with the spikes gets threshed. The winnower is made of a blower, wind box and the hopper. Air from the upper jet of a winnower liquidates the mixture of grains, straw and dust. The lower jet effects separation of the components efficiently. It functions on a 1 HP motor.

Quail Farming

Rearing of Japanese quail or 'Bater' is known as quail farming. The quail farmer obtains meat and egg from it. Quail meat is considered as a delicacy and is much more rewarding than poultry farming, the reasons being a higher rate of egg laying, smaller floor space (one-tenth) and lesser consumption of feed as compared to poultry. A quail is around 150 to 180 grams when ready for consumption and consumes only 400 to 500 grams of feed in 5 weeks time. Frequent vaccination or deworming is also not required. The litter or battery system can be used for brooding and rearing purposes.

Sea Cage Fish Culture

It is a system of producing cultured fisheries, whereby the cultivator can enhance the productivity in a given space and time. It also helps in the utilization of unused water bodies. Fingerlings and Juveniles, which are abundantly available in the brackish and estuarine waters are caught and allowed to grow in a floating enclosure such as a cage, which also protects them from predators. Apart from the natural feed available in the environment, they are also given supplementary feeds. Within a time span of 6 months, a marketable quantity of about 200-250 grams is obtained.

Vermiculture

Vermiculture is the use of surface living earthworms for the purpose of improvement of soil fertility. These worms help in converting low value organic matter into high value organic composts, which enhances the soil fertility.

Biotechnology

R & D forms an important part in extending the efforts towards wealth creation for the society. The ultimate aim of R&D is to invent something, constantly innovate or upgrade existing technologies to be applied in agriculture.

Most foundations spend almost 30% of their income in employing qualified and experienced scientists and to provide them with infrastructure and training. Even outstanding students of premier universities are offered with traineeship every year.

The Government of India, through the Department of Science and Technology sponsors hi-tech labs, fully equipped with the latest scientific testing devices. These labs have been assessed by experts from University of California. Efforts are on to obtain accreditation from NABL and the Department of Scientific and Industrial Research (DSIR), Government of India.

Greenhouse

A greenhouse is a structure built of glass or plastic, to maintain an optimum moisture and temperature for plant growth. The electromagnetic radiation of the sun warms plants, soil and other things inside the greenhouse. The hot air is retained in the building by the roof and its walls. The glass works as a transmission medium for different spectral frequencies and traps energy within it, thereby preventing convection. The principle of autovent automatic cooling system is based on the functioning of the greenhouse.

Flowers, vegetables, fruits and tobacco plants are mostly grown in green houses late winter and early spring, and then transplanted outside as the weather warms. Bumblebees are used as pollinators for most greenhouse pollination although artificial pollination can also be done.

A NEW WAY TO APPROACH TECHNOLOGY TRANSFER

The new economic and scientific context requires a new, more complex, model for transferring technology. The evolving model has four main components: knowledge management, gap filling research, promotion and regulation of the private sector, and environmental impact analysis.

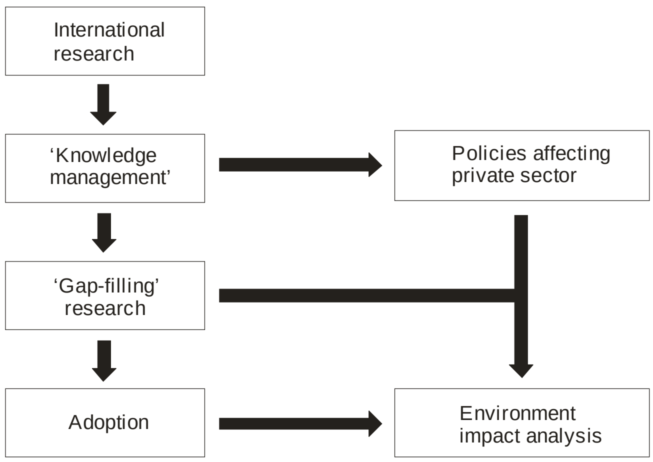

Figure 1: A Multidimensional Model of Agricultural Technology Transfer for the Public Sector

Knowledge Management

The public sector continues to be largely responsible for knowledge management — that is, articulating national needs, matching them to scientific opportunities, mobilising available technology, and adjusting them to farmers' needs. They help develop both new and orphan crops, promote successful agriculture in poor ecological conditions and tackle small-scale technological problems, none of which greatly interest the private sector. Local institutions should provide incentives for their staff to collaborate with international researchers and seek synergies with research done elsewhere.

Gap-filling Research

National public research institutions also have a major responsibility for research in areas ignored by the private sector. This 'gap filling research' is particularly relevant to technologies that are not embodied in physical products — for example, forage management, animal health, and soil management and conservation and irrigation practices.

Public research into agriculture in developing countries represents about a quarter of worldwide expenditure in agricultural research. But it needs to be managed effectively if it is to produce high quality research to complement internationally available technologies and help developing countries acquire and use them. Some countries, like Brazil, China, India and Vietnam, have already taken action, using careful planning and working with research institutions in developed countries' research institutions to help focus research.

Promoting and Regulating the Private Sector

The public sector should also both promote private investment and regulate private companies. Several policies can help encourage the private sector to invest in technologies that are relevant to farmers in developing countries.

First, adequate intellectual property rights legislation can be put in place. This allows private companies to protect profits from their research, helping attract investors and promoting research.

Second, tax and credit facilities can provide indirect economic incentives to investment.

Third, setting up frameworks for turning new technologies, like seeds or agrochemicals, into commercial realities — for example consistent biosafety regulations, royalty agreements, profit sharing and reinvestment — can be used to encourage interactions between private firms and public institutions, supporting joint activities and, thereby, encouraging technology transfer.

Environmental Impact Analyses

Meanwhile, policymakers must be considering the environmental consequences of agricultural research. New agricultural technologies often use natural resources intensively, potentially damaging the environment, for example through land degradation or water contamination. This is especially true if the new technology is imported without being tested in local conditions.

TRANSFER OF TECHNOLOGY TO INDIAN FARMERS

To take research to farms, a mechanism has been evolved in the form of Krishi Vigyan Kendras. The activities of the KVK include on-farm testing to establish the location specificity of agricultural technologies under various farming situations, frontline demonstrations to establish its production potentials on the farmers' fields, training of farmers to update their knowledge and skills in improved agricultural technology, and training of extension personnel to orient them in the frontier areas technology development.

The KVK has established Innovative Farmers Club (Prayog Pariwar) and farmers groups to innovate and modify the technology at the farmers' field level. The approach has helped to evolve a feedback mechanism that can be extended to the research and development department regarding the technology. In the next phase KVK has taken the concept of Farmers Club in the year 2001 at village level. The KVK has taken the help of NABARD for strengthening of Farmers Clubs at village level. The basic objective behind formulation of Farmers Club was to achieve the dissemination of technology at macro and micro level. KVK has also initiated the formulation of Self Help Groups (SHGs) at micro level to involve the women in the agriculture development programme. During the technology dissemination process through group organization, the KVK has formed a three-tier model for technology assessment, refinement and dissemination.

Farmers Club

KVK has initiated Farmers Club programme in the year 2000-01. Initially KVK has established 65 Farmers Clubs in the KVK operational area. In the consecutive years this figure has increased to 148 Farmers Clubs. The responsibility of chief volunteer of the Farmers Club was given to the member of the Prayog Pariwar from respective village during formation of the Club. The Farmers Club has been financially supported by NABARD. The members involved in the club are from different enterprises and age groups. To strengthen the various activities such as technology transfer, inputs, services and consultancy, KVK has promoted one club in each village. The main objectives behind formation of clubs are:

- Proper utilization of credit to adopt the technologies for intensification and diversification of agriculture and allied enterprises
- To develop thrift and saving habit among the members
- Collective purchase, production, development of resources and marketing
- To disseminate the technologies around the success stories

MAJOR PLAYERS IN TECHNOLOGY TRANSFER

Extension Departments

Technology transfer by public sector organizations, especially extension departments, is generally considered relatively ineffective. The main reasons relate to a lack of career structures for extension staff, poor transport facilities to reach the rural communities lack of mechanisms to keep extension agents up-to-date on new technologies, and ineffective linkages with research institutions. In most cases, technology packages propagated by the extension departments for crop production fail to consider prevailing weather and agro-ecological conditions.

Research Institutions

Due to the growing dissatisfaction with extension departments, there has been an increasing trend in recent years for research institutions to be directly involved in TOT. Several agricultural universities that are responsible for basic and applied agricultural research in their provinces/states have also developed well-equipped TOT departments to undertake extension activities in selected areas. These departments maintain close liaisons with influential farmers in the project areas and arrange for visits of farmer groups to the university campuses for discussions with the research scientists who have developed improved technologies.

Private Sector

The main stakeholders for transfer of technology relating to improved varieties and seed in the private sector are farmers' co-operatives, national and multi-national seed companies, NGOs and the agro-processing industries. Multi-national seed companies such as Cargill, Pioneer, Pacific, Sandoz and Lever Brothers, which operate in several countries in the region have well-organized TOT programs to promote their products. Some of these companies have their own research stations and seed multiplication farms in addition to the seed processing plants.

MECHANISMS FOR TECHNOLOGY TRANSFER

- Several mechanisms are used by different stakeholders for transfer of technology to different categories of target groups· These include
- Audio-visual media, radio, television, mobile video vans
- Print media-leaflets, brochures, illustrated booklets, wall charts and posters,

- Demonstration plots in rural areas,
- Rural fairs and corner meetings
- Farmer’s days at research stations
- Farmers contact with seed dealers
- Farmers education by field staff of NGOs and seed companies and
- Extension by agro-industries (flour mills, rice mills, oil processing units, sugar mills, dairy plants).

Relatively simple technologies, including the transfer of names of improved varieties and information about optimum seeding rates and sowing dates can be easily communicated, even to illiterate farmers, through the basic tools used for extension-radio. The more sophisticated technologies require the use of TV or mobile cinema vans and demonstrations by extension staff.

EXTENSION EDUCATION PROGRAM FOR FARMERS

Farmers Training

It is an orientation training to start poultry farming. Three batches of short-term training on poultry production management are organized at the institute every year. The basic qualification for enrolling to the course is 10th pass. Enrolment fee is ` 500 for general backward candidates and ` 200 for SC/ST candidates. Application forms can be obtained by writing to the Head, Technology Transfer Section, C.A.R.I., Izatnagar, Bareilly 243 122, India, or can be down loaded from the website.

In Service Personnel Training

Specialized training courses on rural poultry farming are organized at the Institute for in service personnel to update them with the latest technology know how and to upgrade their knowledge from time to time.

Consultancy Service

Consultancy services are provided to farmers and other private agency from all over the country through post and in person, on various aspects of poultry farming.

Kisan Gosthi

Gosthi's are arranged on the foundation day (2nd November) of the institute and during exhibitions in order to highlight the achievements and to solve the problems of farmers.

Exhibitions

The institute organizes Kukkut Vigyan Mela both at institute and off campus from time to time. Also, institute participates in Agricultural Exhibitions, International Trade Fair, Livestock Exhibitions, National Agricultural Fair, Indian Poultry Expo, Industrial Fair, Agri Expo, Swadeshi Vigyan Mela IIPE etc at various places of the country. So far, the institute has participated/organized 50 exhibitions.

Communication through Mass Media

Popularized poultry farming through:

- Field extension (Village adoption programme)
- Mass media (Telefilm production, farm school on air, press releases, publication of popular articles, preparation of brochure, leaflets, bulletins etc.)
- Conducted five farm schools on AIR in collaboration with Akashwani, Rampur during 1981, 1999, 2000, 2003 and 2005
- Conducted one farm school on AIR in collaboration with Akashwani, Bareilly during 2003.

- Total farmers were registered for all the six farm schools related to 12 districts of UP and 5 districts of Uttaranchal.
- Press releases/news features to national/local news papers.

CHALLENGES FACED BY INDIAN AGRICULTURE

Technology Transfer

Agriculture is often reduced to technical practices of farmers. From an agricultural development perspective this becomes the adoption or rejection of technology normally sourced externally. Thus, despite considerable criticism, the technology transfer model of knowledge generation and dissemination for agriculture remains the dominant form of agricultural engagement. This follows a pre-designed pattern with farmers as passive recipients, government extension staff and other outsiders as conduits and agricultural researches as generators.

Slowdown in Agricultural Growth

In the past decade (1995/96-2004/05) India's agricultural growth rate slowed down to less than 2 percent per year, compared to about 3.5 percent per annum in the preceding decade. In the poorest states, such as Madhya Pradesh, Orissa, and Rajasthan, growth in the last decade was below 1 percent per year. The stagnation of agriculture, the high proportion of poor dependent on it, and the widening rural-urban income gaps are the major concerns of the Government of India (GOI).

Low Agricultural Productivity. With the fixed availability of land and water, higher agricultural growth can only be achieved by increasing productivity through effective use of better technology. Yields of major crops (food grains, oilseeds, other cash crops) in India are lower than in many other countries - for example, rice yields in India are one-third of China’s and about half of those in Vietnam and Indonesia. Average yields are well below those attained in crop trials within India itself.

Increasing Natural Resource Degradation. The sustainability of land and water resources is at risk with increasing soil degradation and the overexploitation of groundwater in many areas. In addition to erosion, salinity and alkalinity, soils are also losing carbon and micronutrients due to unbalanced fertilizer use. Nearly 30 percent of the blocks in the country are presently classified as semi-critical, critical or overexploited as groundwater use exceeds the rate of groundwater recharge.

Subsidies are crowding out Investments. Public expenditures on agricultural subsidies such as for power, irrigation and fertilizers, have crowded out productivity-enhancing investments for irrigation development, agricultural research and extension, rural roads and electrification. According to the Planning Commission, budgetary subsidies in agriculture increased from around 3 percent of agricultural GDP around the late-1970s to about 7 percent in the early 2000s. During the same period, public investment in agriculture declined from 3.4 percent of agricultural GDP to 1.9 percent.

Increase Farmer’s Access to Markets

The miserable infrastructure in many rural areas, the inability of farmers to directly access markets has sustained the presence of a chain of middlemen through whom most agricultural commodities must circulate before finally reaching consumers. The government should learn from the success of initiatives of many private sector organizations and try to help streamline the agricultural commodity supply chain.

Better Public Education

Even if agricultural productivity does increase, it is still likely to lag behind the explosive IT and service sectors. However, the public education system is clearly failing to provide rural children with the skills necessary to enter these labor markets. This is perhaps the single biggest factor inhibiting the transition from agriculture to service sector employment. The demand for skilled workers in India has exploded, particularly in the service sector, demand which many firms are finding difficult to meet domestically due to extremely skewed distribution of human capital.

Promote non-farm Entrepreneurship among Farmers

Although India's rural poor are by and large uneducated, many of them are capable of operating small businesses that have higher returns than traditional agriculture. However, their ability to start such business is often hampered by lack of access to credit and capital. In spite of the microfinance "revolution" and government policies designed to stimulate capital flow to the rural population (such as priority sector lending), there is still a massive failure of credit markets to meet the demands of the rural population.

GOVERNMENT PRIORITIES AND PROGRAMS

The Government of India's (GOI) goal is to raise the agricultural growth rate to 4 percent per year in the 11th Plan period. To achieve this, the Plan aims to:

Accelerate the expansion of irrigated area and improve water management in rainfed areas

- Bridge the knowledge gap through effective research and extension
- Foster diversification to higher value horticulture, fisheries, and animal husbandry
- Increase food grain productivity for food security
- Facilitate farmers' access to credit at affordable rates
- Improve farmer access to markets.

Bridging the Knowledge Gap. The GOI is providing additional resources for the National Strategic Research Fund. However, it would be critical to improve the governance and implementation structure of the Indian Council of Agricultural Research to improve its research effectiveness. The Ministry of Agriculture (MOA) is seeking to improve the effectiveness of extension services by scaling up the Agricultural Technology Management Agency (ATMA) approach which builds on a bottom-up approach to extension planning and implementation. These include decentralized decision making and funds flow, priority to institutional capacity building and training of extension staff on the new bottom-up approach to extension planning and implementation, and ensuring convergence of funds from the various departments at the district level.

The GOI is also encouraging states to develop district plans for agricultural development based on agro-ecological potential. These district plans will be the basis for the formulation of the state agricultural development plans which would be supported under the proposed additional central assistance of Rs. 250 billion announced by the Prime Minister in May 2007.

Diversification of Production and Income Sources. Rising incomes are driving the increased demand for higher-value fresh and processed agricultural products in domestic markets and globally. This opens new markets and income opportunities for farmers. Many of these commodities, however, are highly perishable and inadequate rural infrastructure (markets, rural roads, and electrification) and services (market information, risk management) increase farmers' losses and inhibit the more rapid expansion of high value production. The GOI recently launched the National Horticulture Mission the single largest agriculture plan scheme to promote increased horticulture production. The Bharat Nirman Program, which supports the expansion of irrigation, rural roads, electrification and telecommunication, will help reduce losses and marketing costs and improve the competitiveness of local products.

Ensuring Food Security. While pursuing crop diversification, an emerging concern is the stagnation in food grain production which is raising food security concerns. The 11th Plan approach paper notes that to achieve the goal of a 4 percent overall agricultural growth rate per year, food grain yields per hectare need to increase by at least 2 to 3 percent per year to compensate for the possible shift in cultivated area from food grains to high value crops. To enable this, a concerted effort is needed to raise the relatively low food grain yields, particularly in Eastern and Central India.

Improving Public Expenditures. In recent years, the GOI and state governments have exerted greater effort to cap the amount of various subsidies, while increasing expenditures on more productivity enhancing investments. The latter includes several centrally sponsored programs, such as the National Horticulture Mission, the Bharat Nirman rural infrastructure program, and the National Rural Employment Guarantee Scheme. Participation of the poorest states in these programs is hampered, however, by lack of capacity to develop appropriate plans and implement them effectively.

Improving the Rural Investment Climate. Continuing trade and domestic regulatory reforms are encouraging increased investments in rural areas. These include the removal of most domestic marketing controls – for storage, movement of produce, credit, wholesale marketing, and food processing. Many states have computerized their land records/registration, but reforms of the institutional and data structures are essential to reduce the cost of land transfers and enhance tenure security in rural and urban areas (for example, eliminate overlapping property claims and facilitate access to credit.

Fostering Rural Non-Farm Growth. Diversification of incomes through rural non-farm activities is an important element of the overall strategy to address rural poverty. More rapid growth of the rural non-farm sector is, however, constrained by government interventions in labor, land, and credit markets, as well as inadequate and poor quality infrastructure and services. To improve access to credit in rural areas, the GOI is supporting reforms of the credit cooperative system.

CONCLUSION

If the public sector focuses on these four topics, it will continue to support relevant transfers of agricultural technology. In particular, public sector organisations need to join forces with the private sector to provide reliable funding and sources of trained personnel to improve agricultural technology policy in developing countries.

This should occur in cooperation with international mechanisms, like CGIAR, and research institutions in the developed world. Agricultural innovation has always come from collaborations between public institutions, the scientific community and agriculturalists themselves. Now, with the private sector's growing importance in the innovation process, the challenge facing the public sector is to bridge the gap and work with these new players.

Unless extension grows beyond technology transfer, and clearly articulate its role in facilitating broader changes supportive of evolving rural livelihoods, its ability to remain relevant in the future is extremely doubtful. For technology to be successful, it is important that it should serve a useful purpose to the end user. The institution that bridges the gap between farmers and agricultural research scientists is the Agricultural Extension Service. This service works through an Agricultural Research System in the States. The private sector seed industries along with NGOs are playing an important role in producing quality seed and promoting its use. Special training in seed production and processing would also have to be given to farmers so that they could meet seed requirements at their own place.

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ISBN: 978-93-5051-662-1

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International Finance Strategies: Challenges and Opportunities — The Case of Chinese Yuan Strategy

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ABSTRACT

Money serves the same purposes in international trade as it does in the domestic economy namely, to facilitate the productive specialization and market exchanges. The basic challenges of international finance are to create acceptable standards of value from the various currencies maintained by different countries. Lots of challenges are occurring in international financing scenario. Every country is carefully watching their respective currencies fluctuation against the global currencies especially to the US Dollar. China is emerging as the super power. China has lot of foreign reserves but it still quotes Yuan at a discount because of its trade surplus. China will try to make its currency fully convertible within a decade due to all the advantages it has. This will challenge the strategy being followed by the other countries. The specific objective of this paper is to discuss the current international finance issues, in the context of Chinese Yuan. If Chinese Yuan will find a place in the global currency list over the next decade, then the strategies of other countries are going to change. Currently many countries are expecting US dollar to retain its position for the next decade, but Chinese Yuan has larger potential to become next global currency due to its GDP growth rate and accumulation of the US Treasury bond. This scenario will change the strategies of different countries currency reserves. The current paper highlights the trading pattern of different countries with China. The paper primarily used the recent secondary sources of information from various records such as Ministry of Commerce and Industry, Government of India, US Federal Bank, SAFE China etc. The paper will be useful for the policy makers, academician and other stakeholders in the broaden areas of international finance.

Keywords: Finance, Currency reserves, International currency, International trade, Chinese currency Yuan

JEL classification: G00, F310, F300, F1, F31, F33

INTRODUCTION

Many countries are keeping their foreign exchange reserve either in dollar or in Euro as these are the present reserve currencies. But there is a change expected in the world economy within a decade. The change is nothing but Chinese Yuan's emergence as the next global reserve currency. In that case the present study focuses on how the different countries are going to adapt the changes and how China is going to push its currency in the world market. Around 60 per cent of world GDP (Gross Domestic Product) is constituted by the US, Russia, India and African countries.[1] First of all China require support of these countries to make Yuan as the global reserve currency. China must make its currency fully convertible and it has already created conducive conditions of doing that. It has a healthy GDP and surplus Fiscal budget. It holds huge US Treasury bond so US will support Chinese move. China bought huge natural reserves in Russia and Africa so these countries are also expected to support china. China is the major exporter to India and investing more in India to gain the support of India. Global climate is looking conducive of china to make its currency to join the global reserve currency.

REVIEW OF ISSUES

Nishanth (2010) in his article on “Will Chinese Yuan become the next global reserve currency?” has mentioned that the Yuan has the potential to become next global reserve currency, but it may take 15-20 years before China can start to strongly promote the currency. While the macro conditions are in favor of China, it needs to improve the rule of law, make the Yuan convertible and create deep domestic bond market. However in spite of these efforts, political obstacles, network externalities and competitors may preclude the Yuan from becoming the dominant reserve currency. China’s relationship with major economies such as US, Japan, India and Russia will also determine the success of the Yuan. If China is unable to gain the support of these economies, which are expected to constitute around 60 per cent of the world GDP by 2030, the growing of the Yuan as the global reserve currency would be next to impossible from the two approaches that were adopted to analyze the strength in the Yuan’s bid of the next reserve currency. Nishanth (2010) found that some of the conditions favor China to promote the Yuan while others require significant improvement.[2]

In the first approach, where Papaioannou and Richard Portes’ critical factors of reserve currency were tested, the Yuan could only partially satisfy the required conditions. China has made significant strides on economic front. It is at par with the US in the merchandise trade and only second to the US in terms of GDP. However it lacking in financial institution for implementing the rule of law. In the second approach where the current situation was bench marked against the Pound-Dollar transition during 1920’s, it was found that although it has the same motivation as the US had in the 1920’s to promote its currency as the reserve currency, it’s GDP, investment position and the state financial institutions are not up to the mark. When compared to the US of 1920’s, it has large reserves, however not in gold but denominated in dollar. China is trying to support the dollar as the US did of the pound in 1920’s. But this doesn’t seem sustainable because accumulation of dollar denominated US securities exposes China to exchange rate risk.

It may not seem imminent, but with China taking steps to push the Yuan’s internationalization, and to diversify its reserves, the Yuan can clearly claim the status of the reserve currency in the next two decade. With this background of Nishant (2010) contemporary study about Chinese Yuan become the next global currency, the present study expect changes in international financial strategy for rest of the world. To get the support from other growing economies, China started more trading relationship with these countries to gain their support of its currency to become the next global reserve currency, to dispose the large US Treasury bond reserve and to gain super power status in the world stage. The present study focuses from their trade pattern, international financing, GDP growth, reduction of US securities with China reflect the China’s International finance strategy and the rest of the world’s adoption of China as the next super power by the changes in international trade and finance. In the study of cost and benefits of running an international currency, Papaioannou, Elias and Richard Portes (2008), it is argued that invoicing in the home currency offers exchange rate stability to both imports and exports. Internationalization of currency is both a cause and consequence of invoicing behavior. Thus a rising international role of the Euro benefits the Euro area firms. It is difficult to quantify the benefit but there is a considerable benefit.

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[1] See in this context for instance Nishanth (2010)

[2] Some of the favourable conditions such as GDP growth, huge reserve holdings, continuous trade surplus. and other unfavourable conditions are lack of fully funded financial institutions and competition from other countries.

Transaction in Euro have increased over the past decade, as single currency has spurred trade within the Euro area and has raised trade flows of Euro member countries with outsiders while the data or international trade invoices are same. Most studies illustrate the primary role of the dollar through out the past 50 year's.[3] As firms trend to invoice their exports either with their own currency or that of the importer (to smooth demand fluctuations) and the US was the largest market, it comes as no surprise that most imports to and exports from the US were settled in dollars. Market size is a key determinant of invoicing pattern. Theoretically exports have a high incentive to invoice in the currency of the large markets as their competitors in these countries will be most likely domestic companies. In other words, in large markets the strategic externality hard with your competitor pricing is stranger.

In line this conjecture, Goldberg and Tille (2005) find that country size is a highly significant predictor of invoicing patterns. Size appears particularly important of the invoicing of small countries. Euro area is a market equally important as the US of most big emergent market economics (such as BRICS-Brazil, Russia, India, China, South Africa). Valery Giscard d'Estaing (1965) criticized the exorbitant privilege accruing to the issues of the international currency. He was referring to the automatic way in which other countries financed US balance of payments deficits by some involuntarily accumulating dollar denominated assets, typically US Government securities. The exorbitant privilege has also been interpreted as the ability of the issues of the international currency to earn excess returns on its gross foreign assets relative to the returns non-residents earn a gross US liability. This can have two components higher returns within each asset class and relatively high portfolio weights as high-yielding asset classes and low yielding liabilities.

A recent paper by Gourinchas and Rey (2007) presents a disaggregation of the exorbitant privilege into these returns and composition effects by performing a detailed analysis of evolution of the historical evolution of US external assets and liabilities at market value since 1952. They find strong evidence of a sizeable excess return of gross assets over gross liabilities. Interestingly this excess return increased after the collapse of the Brettan woods fixed exchange rate system. It is mainly due to a return discount within each class of assets, the total return the US gets as its foreign assets. They also find evidence of composition effect: the US tends to borrow short and lend long. Interestingly the composition effect plays a smaller effect over the entire period, but its relevance has increased significantly over time. Between a quarter and third of the current excess return can be explained by the asymmetry in the US earns the equity premium.[4]

The present study expects the same trend to be followed by Chinese Yuan after it's made fully convertible and will also enjoy exorbitant privilege while invoicing and transferring US securities and US dollars to these countries. This effect will increase the trade between China and other developing countries. FDI (Foreign Direct Investment) will flow into China and it will prosper. Immediately before the introduction of the Euro, there was extensive analysis of the likely differences between the volatility of the legacy currencies and the volatility derived from option prices given by Breedan and Chui (1998) clearly showed that expectation in November 1998 of volatility between may and November 1999 were substantially higher than they were in august 1998 and also much higher than historic volatility.

The discussion then ignored the likely internationalization of the Euro are the argument started from the size of effect of EMU (Economic and Monetary Union). The Euro zone is a substantially larger economy than any individual member even Germany represents only about a third of Euro area GDP. Since exchange rate changes have a smaller impact on the domestic price level in a large country. As explained by Papaioannou, Elias and Richard Portes (2008) in Euro case, the present study expects almost similar situation for Yuan's full convertibility. Only difference would be Euro zone is big, it was able to withstand the volatility. Once it was fully convertible, given its GDP growth, trading relationship with other countries and huge US security, China can withstand this volatility and be successful in international Finance front.`

[3] See for instance the study by Baldwin (2006)

[4] For detailed discussion, see in this context *Gourinchas* and *Rey* (2007) as quoted in Papaioannou, Elias and Richard Portes (2008)

The Krugman problem refers to the fact that because of the devaluation of the dollar in terms of the dollar index, China's foreign exchange reserves are facing serious capital losses. According to Karpogoff, due to balancing budget deficit, the temptation of the US Government to inflate away its debt burden may become irresistible. As a result, the purchasing power of China's foreign exchange reserves totaled just about $ 400 billion now stands at $ 3.2 trillion an 800 per cent increase. However in 2003, the price of crude oil was generally under $ 30 a barrel and the price of gold is more than $ 1600 an ounce. In fact from 1929 to 2009, the dollar has been devalued by 94 per cent in terms of purchasing power. It will devalue even further in the future. At this moment a role frightening probability is coming large US Government securities might default, if that happens, China will be devastated.[5]

It is crystal clear that to run twin surplus and continue to accumulate foreign exchange reserves is not China's interests. China has taken actions to correct its external imbalances, but the progress is painfully slow and the economy is sinking into the dollar trap. Last year China's trade capital account and total balance of payments surplus has been invested in US Government securities.[6] As a result of Chinese Government's policy incentives, foreign funded enterprises in the country are mostly an export oriented. China's implementation of an export promotion policy coincided with the formation of international production networks and its trade pattern was shaped to a large extent by FDI. The pattern of FDI inflows into China was in turn, facilitated by the Chinese Government policy favouring the processing trade, which was motivated by the Chinese Government's fear of a current account deficit and its desire to allow the country's comparative advantage in labour-intensive products to have full play. As a result, China's trade is dominated by foreign funded enterprises which account of 50 per cent-60 per cent of China's total trade and more than 50 per cent-70 per cent of China's exports, since 2000. The denomination of processing trade in Chin's trade which accounts more than 50 per cent of China's total trade even before the onset of the Asian Financial crisis means that China must run a current account surplus. It is worth noting that since 2005, while China has run a trade surplus, its trade other than in processing has been in deficit in almost all years.

The Chinese Government has tried correct imbalances by simulating domestic demand, allowing the Yuan to appreciate gradually diversifying foreign exchange reserves away the US treasury bills creating sovereign wealth funds. Participating in regional finance co-operation, and promotional reform of the international monetary system and internationalization of the Yuan however all these efforts, through useful and necessary have failed to address the direct cause of foreign exchange reserve. Due to the continuous worsening of the US fiscal position, the possibility of an attempt by the US Government to inflate away its debt burden as pointed out by Rogoff is increasingly weekly. One unfortunate thing is that losses in the financial assets will not be realized until the holders have decided to cash out. If the US Government continues to pay principal and interest on its public debt the China continues to park its savings in US Government securities the game may continue of a very long time indeed. However this situation is ultimately sustainable. The larger the delay in the adjustment the more violent and destructive the adjustment will be.

Stopping a further accumulation of foreign exchange reserves is becoming a more urgent issue than rebalancing China's current account. However to stop the accumulation of foreign exchange reserves and thus minimize China's welfare and capital losses, the simplest solution would be of the PBOC to end intervention. But this implies that China must allow the Yuan to float freely and thus to appreciate. Ending central bank intervention in the currency market is a complex issue. The devil is in the details, but the economic and welfare costs of China's slow pace of adjusting the exchange rate are very high and will increase by the day. It is the time of China to consider allowing the Yuan to float freely while reserving the right to intervene when it must and tighten the management of cross border capital focus. China must speed up its rebalancing so as to guarantee the sustainability of its economic growth.

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[5] For further and detailed discussion see Yongding, Yu (2011)

[6] For more discussion see in this context Nolan, Peter (2001)

All these above argument concludes the position of china to make its currency as a global reserve currency it has to disturb the international trade and finance with other countries. It has to get rid of US Treasuries and infuse Chinese Yuan to other countries to be the next super power. The developing countries trade pattern, trade deficit, balance of payment and China's surpluses shows the conductive environment in the international finance front.

OBJECTIVE OF THE STUDY

The main objective of this study is to predict the adjustment in international finance scenario if Chinese Yuan become the next global reserve currency. As US is not so strong as before and European Union is facing major credit crisis there is no other strong global currency of the world to bear upon. Inevitably, the present study expects Yuan to become global reserve currency. Global countries were engaged in trade majorly with US and European Union as their currencies are the global reserve currency. But due to crisis and credit risk, countries are reluctant to engage in trade with those economies and looking for some-other country to replace those countries consumption. China is the answer for this. This will shift the way the world does business and in International finance stage.

DATA AND METHODOLOGY

Secondary sources of data is collected from SAFE (State Administration of Foreign Exchange), China to substantiate china's current financial position. The data from WTO (World Trade Organisation) has been collected for the past three years to substantiate china's increasing trade relationship with developing countries like India, Russia, Brazil and Africa. Some of the secondary sources of data has also been collected from IMF (International Monetary Fund) to substantiate the power of china in global stage. Future predictions are made from the above sources of data and mere predictions could not be substantiated with current data.

RESULTS AND DISCUSSIONS

China's holding is primarily in dollar, which is currently the reserve currency. As the rest of the world will begin to acquire the Yuan to replace their dollar reserves, the value of, dollar replace reserves will fall. Hence the willingness of the other countries to replace their foreign reserves with the Yuan must be based on china's real resources. This is why china used its dollar reserves to enable its state-owned companies acquire overseas investments particularly in natural and energy resources. Further, China has signed deals with Russia, Brazil and Ecuador to secure long term oil supply by lending them dollar reserves. It has also spent dollar reserves to increase its strategic petroleum reserves, gold and other precious metal reserves. The Yuan can be acquired by the world in two ways: China invests in overseas assets or it purchases foreign commodities. Either way, it will take long to export significant amount of Yuan to the world. Before a year there was hardly any competition of US dollar and European Euro. But last year US faced credit rating cut from Standard and Poor's. European countries facing huge debt crisis. This sun set in Euro zone and US zone will make the sun rise in China.

Table 1: China's International Investment Position

Unit in 100 million of US dollars

Item	June 30,2011
Net position	19851
A. Assets	46152
1. Direct investment abroad	3291
2. Portfolio investment	2604

2.1 Equity securities	622
2.2 Debt securities	1982
3. Other investment	7551
3.1 Trade credits	2513
3.2 Loans	1492
3.3 Currency and deposits	2588
3.4 Other assets	958
4. Reserve assets	32706
4.1 Monetary gold	508
4.2 Special drawing rights	125
4.3 Reserve position in the Fund	97
4.4 Foreign exchange	31975
B. Liabilities	26301
1. Direct investment in China	15838
2. Portfolio investment	2309
2.1 Equity securities	2140
2.2 Debt securities	169
3. Other investment	8154
3.1 Trade credits	2397
3.2 Loans	3138
3.3 Currency and deposits	2350
3.4 Other liabilities	270

Sources: State Administration of Foreign Exchanges, the Peoples Bank of China (2011)

Table 1 shows the China's international investment position. Given the present circumstances, if Yuan become the next global currency, the trade patterns and international financing changes are expected to happen in the world economy. It is realized that China has trade surplus for the past five years. The Chinese trade balance sheet is very healthy. The Chinese Government is spending US securities to buy the natural resources and investing in Russia, Brazil and African region. The US security with China shows a declining strength as per the famous quote "if one currency depreciate the other currency must appreciate". On the one side US Dollar and Euro is showing depreciation and on the other side Chinese Yuan is showing appreciation. China has a steady GDP growth rate and controlled inflation. This trend is going to continue in the near future. As the Euro is losing its shine, Chinese Yuan will find that place after spending US securities and making Chinese Yuan fully convertible.

China's Foreign Exchange Status

According to statistical data released by the State Administration of Foreign Exchange (SAFE), in October 2011 the amount of foreign exchange settlement and sales by banks on behalf of clients amounted to USD 115.2 billion and USD 112.1 billion respectively. The surplus of foreign exchange settlement and sales by banks on behalf of clients amounted to USD 3.2 billion. Of the first ten months of 2011, the cumulative amount of foreign exchange settlement and sales by banks on behalf of clients amounted to USD 1326.5 billion and USD 942.6 billion respectively. The surplus of foreign exchange settlement and sales was USD 383.9 billion. In October 2011, foreign-related receipts and payments of domestic banks on behalf of clients amounted to USD 186.8 billion and USD 175.9 billion respectively; and the surplus of foreign-related receipts and payments reached USD10.9 billion. In the first ten months 2011, the cumulative foreign-related receipts and payments of banks on behalf of clients amounted to USD 1896.7 billion and USD 1637.8 billion respectively; and the surplus of the cumulative foreign-related receipts and payments reached USD 258.9 billion.[7]

China's Balance of Payment

The SAFE recently released the preliminary data on Chinas Balance of Payments Statement for the Third Quarter (Q3) of 2011. The current account and the capital and financial account posted a twin surplus in Q3 of 2011, and international reserves maintained their growing momentum. In Q3, the surplus under the current account totaled USD 57.8 billion. Specifically, according to the statistical coverage of the balance of payments, the surpluses in goods and current transfers reached USD 85.3 billion and USD 6.9 billion respectively, whereas the deficit in trade in services and income amounted to USD 20.2 billion and USD 14.1 billion respectively. Meanwhile, Chinas surplus under the capital and financial account (including net errors and omissions) totaled USD 33.9 billion. In particular, net inflows of direct investments amounted to USD 35.9 billion. International reserve assets posted an increase of USD 91.7 billion. Specifically, transactions in foreign exchange reserve assets registered an increase of USD 92.1 billion (exclusive of the influence of non-transactional changes in value such as changes in the exchange rates and prices), the reserve position in the IMF registered a decline of USD 300 million, and special drawing rights registered a decline of USD 100 million. In the first three quarters of 2011, Chinas surplus under the current account totaled USD 145.6 billion and the ratio of the surplus under the current account to GDP was 3.0 percent. Meanwhile, Chinas surplus under the capital and financial account totaled USD 229.8 billion (including net errors and omissions) for the current year. Chinas international reserve assets posted an increase of USD 375.4 billion.[8]

U.S Crisis

The US economy is in the doldrums and the compass offered by Standard & Poors (S&P) points in the wrong direction. The sovereign long term debt of the US was downgraded by a notch on 5th August 2011, a few days after a congressional deal was struck to raise the debt ceiling by $ 2.4 billion, provided austerity measures of a similar amount were taken between 2013 & 2021.

Triple Fallacy

- First the S&P downgrade was premised as an alleged lack of reliability of the austerity program and thus potential inability of the Government to stabilize debt dynamics. The view that Government debt dynamics depends as an ex ante austerity program is incongruous with the lessons which in other financial crisis in history are forgotten.

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[7] For further discussion, see in this context http://www.safe.gov.cn/model_safe_en/news_en/new_detail_en.jsp?ID=30100000000000000,332&id=2 accessed on 22 January at 22:20

[8] Source: http://www.safe.gov.cn/model_safe_en/news_en/new_detail_en.jsp?ID=30100000000000000,330 & id=2 accessed on 22 January 2012

- Second there was modest reduction in discretionary spending, no changes in tax policy and a trend growth of GDP and 2.5 per cent in a downside scenario. Taken together, this is hard to square with the facts.
- In addition there is no convincing evidence of debt rising to an unbearable level. In the narrow sense in which all of public debt is accounted as a gross basis, the total debt at present amounts to about 75 per cent of GDP.

Putting all these together the problem with public debt creation in the US since the recession took hold is that it is inadequate rather that excessive of the task of hand. All these facts prove the financial instability of US.

Euro Crisis

According the European commission's analysis European economy is in the midst of the deepest recession since 1930s, with real GDP projected to shrink by some 4 per cent in 2009, the sharpest contraction in the history of European Union. The overall fiscal stimulus, including the effects of automatic stabilizers, amounts to 5 per cent of GDP in the EU (European Union). On the current course, public debt in the Euro area is projected to reach 100 per cent of GDP by 2014. This will affect the fiscal position, debt level, projected costs of ageing, external imbalances and risks in the financial sector.

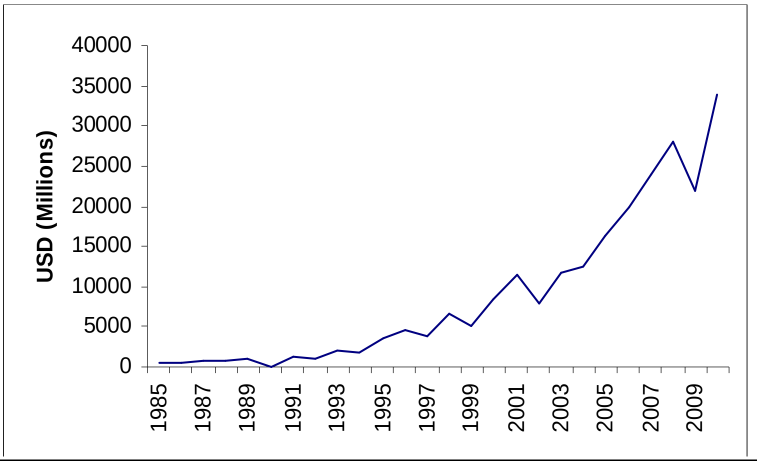
Increasing Trade with the US.

Table 2: US Imports from China, Mainland, Customs Basis

Years	USD (Millions)
1985	500
1986	600
1987	700
1988	800
1989	900
1990	100
1991	1150
1992	1000
1993	2000
1994	1800
1995	3600
1996	4600
1997	3800
1998	6500
1999	5000
2000	8300
2001	11500
2002	7800
2003	11700

2004	12600
2005	16400
2006	20000
2007	24000
2008	28000
2009	22000
2010	34000
2011	30000

Source: *US Department of Commerce: Bureau of Economic Analysis, U.S. Department of Commerce: Census Bureau (*http://economicedge.blogspot.com/2010_06_06_archive.html accessed on 22 January 20: 52)



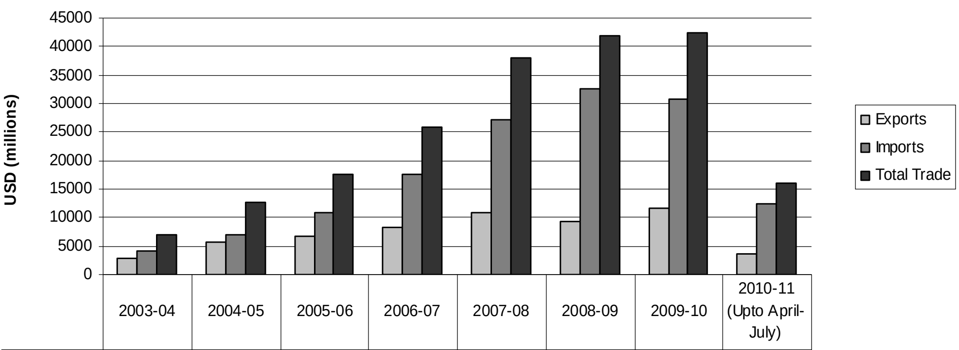
Source: *US* Department of Commerce: Bureau of Economic Analysis, U.S. Department of Commerce: Census Bureau (http://economicedge.blogspot.com/2010_06_06_archive.html accessed on 22 January 20:52)

Figure 1

Table 2 and Figure 1 depict the imports from China to the US. It shows that the imports from China increased from $ 500 million to $ 30000 million during the period 1985-2011. This is the reason why China holds $ 3 trillion worth of US Treasury bonds. To make Yuan fully convertible, China is expected to have more trade with US in the forthcoming years.

Trade between China and India

Figure 2 shows the trade between China and India. It shows that, there is an increase in trade between India and China from $ 7008 million to $ 42419 million during the period 2003-04 to 2009-10. It is expected that both imports and exports will increase due to the growing power of China and India's expectancy about the Yuan to become the next global reserve currency. China is India's largest trading partner and accounted of a share of 9.09 per cent in India's international trade during 2009-10. But the trade is heavily in favor of China. China is the top source of India's imports accounted as much as 10.69 per cent in India's total imports. As of exports it was third highest destination behind UAE and USA and accounted of 6.50 per cent of country's total exports.

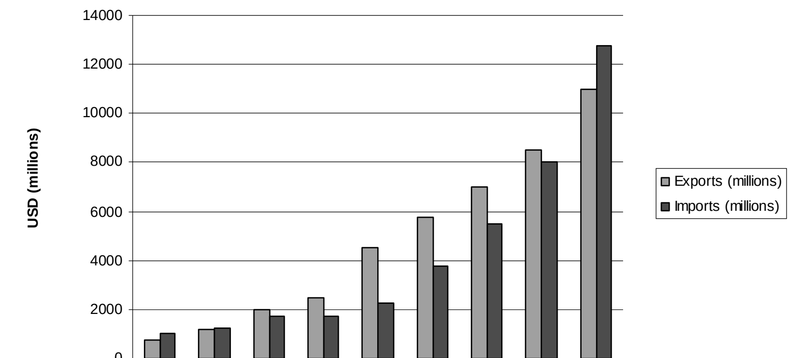


	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (Upto April-July)
Exports	2955.1	5615.88	6759.1	8321.86	10871.34	9353.5	11617.88	3626.62
Imports	4053.23	7097.98	10868.05	17475.03	27146.41	32497.02	30824.02	12492.28
Total Trade	7088.33	12713.86	17627.15	25796.89	38017.75	41850.52	42441.9	16118.9

Note: India's Fiscal year: April-March
Source: Ministry of Commerce and Industry
Source: http://www.thehindu.com/news/international/article1129785.ece accessed on 22 January 2012 at 20:45

Figure 2

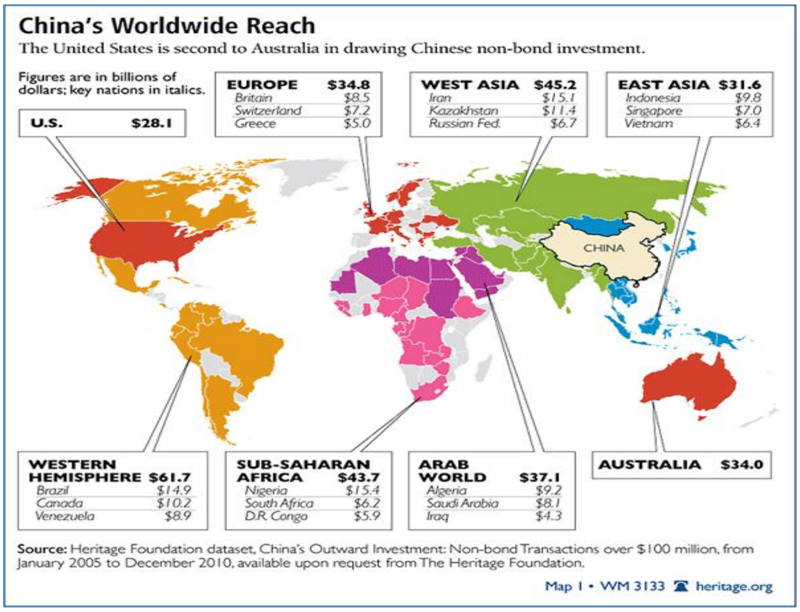
Trade between China and Brazil



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Exports (millions)	750	1200	2000	2500	4500	5750	7000	8500	11000
Imports (millions)	1000	1250	1750	1750	2250	3750	5500	8000	12750

Source: http://www.dbresearch.com/servlet/reweb2.ReWEB;jsessionid=E1193910FCF54BFE5D44357FEA4DB673 .srv-net-dbr-com?rwsite=DBR_INTERNET_EN-PROD&rwobj=ReDisplay.Start.class&document=PROD0000000000224409 accessed on 22 January 2012 at 20:51

Figure 3



Source: http://www.heritage.org/research/reports/2010/02/china-global-investment-tracker-2010 accessed on 22 January at 20:55

Figure 4

Fig. 4 shows the Chinese investment in different parts of the world. It clearly shows that, the China has invested considerable amount in developing countries like Brazil, India, Russia, South Africa and Sri Lanka. By investing in the above countries, China spends the US. Treasury bonds and keeping their assets as natural resources. It is expected that, there will be devaluation of US. Treasury bonds, if Yuan become the global reserve currency. China has invested $ 6.7 billion in Russia and $ 43.7 billion in the African continent during the period January 2005-December 2010.

CONCLUDING OBSERVATIONS AND POLICY IMPLICATION

Every country is carefully watching their respective currencies fluctuation against the global currencies especially to the US Dollar. China is emerging as the super power. China has lot of foreign reserves but it still quotes Yuan at a discount because of its trade surplus. China will try to make its currency fully convertible within a decade due to all the advantages it has. This will challenge the strategy being followed by the other countries. The present paper discussed the current international finance issues and trading pattern, in the context of Chinese Yuan. From the above argument it is evident that the US and the European Union losing its shine and china is slowly emerging as the global super power and will make its Yuan as global reserve currency. Due to these reasons, china is engaging in trade with developing countries. Hardly, any other country is consuming like the US and the Europe, world has no other way but to turn towards the most populous and consuming countries like China. This changes the patterns of different country's international finance as Yuan gain importance. After 30 years of neck-breaking growth, China overtook Japan in 2010 to become the world's second largest economy. China's per capita income surpassed to $ 4000 threshold. There is no doubt about China's achievements indeed it's been a miracle. China has run the current account surplus persistently for last 20 years. In 2008 the current account surplus hallowed to $ 426.1 billion which is accounting to 9.6 per cent of the GDP. Until 2005 China's capital account surplus was larger than its current account surplus. As a result of so called "twin surplus". China now has accumulated more than $ 3.1 trillion foreign exchange reserves, which is in the form of US Treasury bills. From the above argument it is evident that, different countries have proper strategy in place to tackle the international financial issues, once Chinese Yuan become the next global reserve currency. The paper will be useful for the policy makers, academician and other stakeholders in the broaden areas of international finance and trade.

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ISBN: 978-93-5051-662-1

5

Impact of Stress on Employee Performance — A Global Perspective

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ABSTRACT

The globalization and liberalization of the world economy has made jobs more competitive and demanding. Various demands placed by organizations tend to pressurize employees, leading to stressful working environments. These stressful environments in turn affect performance, leading employees into stressful situations. Over the past few decades stress is emerging as an increasing problem in organizations. Stress is vigorous state in which a person is confronted with an opportunity, demand, or resource related to what the individual wishes and for which the outcome is perceived to be both vague and vital. Managing stress is a critical area in contemporary operations management. Stress impacts performance of Employees. This research paper concentrates on impact of stress on employee performance in ICICI bank. The research objective is to study the contribution factors to stress and how stress impacts Employee Performance. A descriptive research design was adopted. Questionnaire was developed with exhaustive literature review. 15 questions with 5 point Likert scale formed the tool of data collection from all the middle level managers. Percentage analysis was the statistical data analytical technique. Human factors like Stress, require more concentration on modern operations management. The findings and suggestion are very important and have relevant managerial implication.

Keywords: Stress, Job pressure, employee, performance, globalization.

INTRODUCTION

Stress has been defined in a number of ways and the range of stress management techniques is even wider still. The most commonly accepted definition of stress (mainly attributed to Richard S. Lazarus) is that stress is a condition or feeling experienced when a person perceives that “demands exceed the personal and social resources the individual is able to mobilize.” In short, it's what we feel when we think we've lost control of events.

PROBLEM STATEMENT

Stress at workplace affects Employee performance and eventually to the goal of an organization. Employee performance is critical to achieve the objectives of the organization, which undoubtedly helps the organization in combating ‘Global Crisis’. This study helps to identify whether there is stress among the employees of the workplace and to measure the level of stress among them.

AIMS & OBJECTIVES OF THE STUDY

- To find out the level of stress experienced by employees.
- To find out the contributing factors causing job stress among employees.

- To suggest suitable measures to cope with stress related problems of the employees (with special reference to ICICI Bank).

LIMITATIONS OF STUDY

- Sample size of the study is limited to the ICICI bank branches in Nagpur city.
- This study may be limited through the use of a questionnaire as a data collection instrument, as questionnaires must generally be brief, areas that may have been affected by stress may not have been included in the questionnaire.
- The sample of business employees for the study is chosen for convenience and may not be representative of the total population of business employees.
- The use of simple statistical techniques may introduce an element of subjectivity into the interpretation and analysis of the data. All attempts would be made to minimize the effects of these limitations on the study.

LITERATURE REVIEW

Stress exists in every organization either big or small the work places and organizations have become so much complex due to which it exists, work place stress has significant effects over the employees job performance, and the organizations in UK are trying to cope with this scenario, (R. Anderson, 2003). Eleven forces are used as an antecedents of stress by researches (Overload, Role vagueness, Role conflict, Responsibility for people, Participation, Lack of feedback, Keeping up with quick technological change, Being in an innovative role, Career growth, Organizational structure and environment, and Recent episodic events.,)

1. Overload: excessive work or work that is outside one's capability (French and Caplan, 1972; Margolis *et al.,* 1974; Russek and Zohman, 1958).
2. Role Ambiguity: Role insufficient information concerning powers, authority and duties to perform one's role (French and Caplan, 1972; Kahn, *et al.,* 1964).
3. Role Conflict: Supervisors or subordinates place contradictory demands on the individual (Behr *et al.,* 1976; Caplan and Jones, 1975; Caplan, et al, 1975; Hall and Gordon, 1973; Kahn *et al.,* 1964).
4. Responsibility for people: Responsibility for people, well-being works, job security, and professional development (French and Caplan, 1972; Pincherle, 1972).
5. Participation: Extent to which one has influence over decisions relevant to one's job (Kasl, 1973) Margolis *et al.,* 1974).
6. Lack of Feedback: Lack of information about job performance (Adams, 1980 Cassel, 1974).
7. Keeping up with rapid technological change: Keeping up with rapid changes in the information processing field (Ginzburg, 1967).
8. Being in an innovative role: Having to bring about change in the organization (Kahn, *et al.,* 1964) Lawrence and Lorsch 1970.
9. Career development: Impact of status dissimilarity, lack of job security, let down ambition (Brook 1973) Erikson and Gunderson 1972; Kahn, *et al.,* 1964).
10. Recent episodic events: Certain life events, such as divorce and bereavement that are highly stressful (Adams 1980; Cobb, 1977 Holmes and Rahe 1975).

Stress is an unwanted reaction people have to severe pressures or other types of demands placed upon them. A huge and multi fields literature points a lot of key factors such as work environment, management support, work load etc in determining the stressful the work can be and its effect on employee physical and mental health, (Ganster & Loghan, 2005). According to (Anderson, 2002) work to family conflicts is also a predecessor which creates stress in employees of an organization. Job stress has been also viewed as dysfunctional for organizations and their members (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Although stress has been variously viewed as an environmental stimulus to an individual (Kahn et al., 1964) Selye, 1956 defined stress as an individual's reaction to an environmental force that effect an individual performance. Job related stress can be mostly immobilizing because of its possible threats to family functioning and individual performance. Job related stress can create a difference between demands on families and the ability of families to provide material security for them (McCubbin & Figley, 1983). While there is a significant body of research which deals with work and family there is relatively little research (e.g., Jacobson, 1987) which deals specifically with perceived job insecurity (i.e., concerns or fears about job loss) and marriage and family life (e.g., Buss & Redburn, 1983). Stress condition which happens when one realizes the pressures on them, or the requirements of a situation, are wider than their recognition that they can handle, if these requirements are huge and continue for a longer period of time with out any interval, mental, physical or behavior problems may occur, (Health & Safety Executive UK).

RESEARCH METHODOLOGY

Research Design

A research design is an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research.

It is the conceptual structure within which research is conducted and it constitutes the blueprint for the collection, measurement and analysis of data. It includes an outline of what the researcher will do from within the hypothesis and its operational implications to the final analysis of data.

The research design used for the study is descriptive design. Descriptive research design includes surveys and fact finding enquires of different kinds. The major purpose of descriptive research is description of the state of affairs, as it exists at present.

Source of Data

The relevant data has been collected from the primary sources and secondary sources. The primary data is collected by a questionnaire from the employees. For this purpose of data collection, the questionnaire was circulated among the employees to collect information. The secondary data is collected by news paper, magazines websites etc.

Questionnaire Administration

The questionnaire was prepared to collect primary data which was based on exhaustive literature review. Five point likert scale were used for this purpose.

Individual semi-structured interviews & observations were also used to collect information about the job routine, in order to find out how the work patterns have been influenced by environmental factors.

Sample Design

A sample of 100 employees was taken using random sampling from different levels of hierarchy. The sample was taken from the different branches of ICICI bank of Nagpur district. The executives were contacted personally and brief summary of the nature of the study and details in the questionnaire were narrated to them.

Period of Study

The present study had been undertaken for period of 2 months i.e. January & February 2011. It was divided into two stages as such - Stage I is of research problem and collection the literature of the topic chosen. Stage II is of analysis and interpretations by using different statistical tools, findings and recommendations.

ANALYSIS AND CONCLUSION

On the basis of the survey results it is seen that most of the employees are enjoying their job though some of them feel that they have to work efficiently within the limited time allotted. Major group of respondents have faced lack of cooperation from their co-workers. Majority of respondents from the sample taken are undergoing a tough time to have a proper balance between their work and family responsibilities. As far as the health problem is concerned there is no major set back for a large size of sample.

The external environment factors, communication, coordination, time constraint, financial motivation, rational allocation of work play a dominant role in increasing the stress level of the employees as per the sample surveyed.

Majority of the respondents have a difficulty in concentrating for a long period of time and have positive approach towards physical workout and meditation due reduce stress level.

Major group of the respondents are of the opinion that training and development programs help to cope-up with new technology thereby reducing the level of stress. Majority of the respondents from the sample taken, feel proud and satisfied with their job and are very comfortable with the working conditions of their organization.

From the above results it can be very well concluded that management support helps in reducing or increasing the stress in employees. Organizational assistance and management support work as a cushion which acts positively in decreasing work related stress in employees.

No doubt stress is necessary for increasing performance of employees but up to a certain level. In this study the employees do their job regularly but due to workloads and time constraints their performance reduces. To give the effective results of their work responsibilities, employees have to work for longer hours as compared to other jobs which are only a reason of concern.

RECOMMENDATIONS

Most of the employees have difficulty in dealing with time management to reduce work stress. Individuals and organizations can deal with stress and reduce it in the under mentioned ways.

Individuals may try to reduce stress through

- better management of their time
- nutritious food,
- physical workout,
- career planning,
- change in jobs,
- promotion of psychological health,
- relaxation,
- meditation,
- spiritual healing

Time can be managed effectively by,

- Making daily list of activities to be accomplished
- Prioritizing activities by importance and urgency

- Scheduling activities according to the priority set
- Knowing the daily cycle and handling the most demanding parts of job during the
- peak phase of working hours
- Conducting time and motion study

Organization may provide counseling or recreation facilities or may improve the job design by matching the person with the job. A proper fit between individual needs and the demands of the task will benefit both the individual and the organization, to achieve the organizational objectives effectively and efficiently even at the time of global recovery.

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ISBN: 978-93-5051-662-1

6 A Study on the Role of Agripreneurship in the Development of Rural India

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ABSTRACT

Agriculture and allied sectors are considered to be the mainstay of Indian economy. They are important source of raw material and demand for many industrial products, particularly fertilizers, pesticides, agricultural implements and a variety of consumer goods. Agriculture contributes nearly 18.5 per cent of Gross Domestic Product (GDP) of India. About 65-70 per cent of the population is dependent on agriculture for their livelihood. Agricultural consists of 430 million workers in 2007-08, growing 2% annually, with a stable worker-population ratio of 40%. Rural workers constitute over 60% of the workforce. Agriculture contributed 8.8 million job opportunities in the 11-year period from 1997-98 to 2009-10, it is projected that there is no increase in the Eleventh Plan and a net decrease of 4 million agricultural workers over the Twelfth Plan period (2006-07 to 2016-17). Agripreneurship is the profitable marriage of agriculture and entrepreneurship; more plainly, turning your farm into a business… Agripreneurship is mental attitude that can give you the strength and motivation to break from tradition. Sustainable agriculture is a site specific, whole farm approach to agriculture. Land, people, goals, capital, crops, and livestock are managed to yield the best possible results on the farm. 'Agriculture and allied' industry is further divided into several segments, namely: - horticulture and its allied sectors (including fruits and vegetables, flowers, plantation crops, spices, aromatic and medicinal plants); fisheries sector; animal husbandry and livestock; and sericulture etc. Entrepreneurship in agriculture is not only an opportunity but also a necessity for improving the production and profitability. It is necessary to create a congenial atmosphere in this field by which rural people can increase their living standard and reduce poverty and make their selves empower and self-dependent. In this paper important links are given regarding the policies and plans made by Government which may be of a great help to the farming community and a lot of other people dependent on agriculture in one way or the other. This study examines the feasibility of the various programmes of XI Five year plan for the growth of agriculture sector. This paper is part of a larger effort to understand and assess agricultural policies in India.

Keywords: Entrepreneurship, agripreneurship, sustainable agriculture, horticulture, fisheries, livestock.

INTRODUCTION

"Agriculture is the backbone of the Indian Economy"- said Mahatma Gandhi five decades ago. Even today, as we enter the new millennium, the situation is still the same, with almost the entire economy being sustained by agriculture, which is the mainstay of the villages. Not only the economy, but also every one of us looks up to agriculture for our sustenance too. Agriculture is the mainstay of the Indian economy because of its high share in employment and livelihood creation. It supports more than half a billion people providing employment to 52 per cent of the workforce. Its contribution to the nation's GDP is about 18.5 per cent in 2006-07. In India, 65 per cent of the total population depends upon the agriculture and allied sector directly or indirectly. So self-employment opportunity can be created easily in rural areas through agriculture and allied sector.

Agriculture in India is means of livelihood to almost two thirds of the work force in the country. About 75 percent of the population is dependent directly or indirectly on this sector. It has always been India's most important economic sector accounting for 25 percent of the gross domestic product (GDP). Today agriculture is not only seen as means of solving food problems within the country, but also as a foreign exchange earner. This objective demands high productivity, at the lowest possible price and of international quality.

In order to accomplish the above mentioned aspirations, agriculture extension services will need strengthening by providing farmers, information, training and support for adopting improved production technologies. Since Independence, extension services have kept pace with the changing times. However, an analysis of the demand for extension workers indicated that the agriculture extension was suffering from inadequate quality and quantity of manpower. Quantitatively farmer to extension worker ratio worked out to be 1000:1. It meant for every 1000 farmers there was 1 extension worker.

This led to a situation where, it was extremely difficult for extension worker to provide quality extension services to large number of targeted farmers. As a result, quality time of extension worker available to each farmer was minimum and inadequate. Besides, around only 20% of extension workers were qualified agriculture graduates, rest of the extension workers found it difficult explaining complex issues like that of WTO to the farmers. So far as extension approach is concerned, it was production oriented support with inputs and infrastructure rather than demand driven through cost competition, quality and market reach. As a result, large extension gaps were observed in transfer of technology process.

Hence, providing value added extension services to farmers through additional qualified manpower and adequate infrastructure was urgent need of the hour. On the other hand study of the manpower available that could be channelized for strengthening the extension services revealed that every year state agriculture universities are producing about 15,000 agriculture graduates and nearly half of the graduates from agriculture sciences go for higher studies in Indian Universities and abroad (ICAR). Only about 2000 graduates get jobs in public and private sector leaving the rest unemployed.

CONCEPT OF AGRIPRENEURSHIP

Agripreneurship is the profitable marriage of agriculture and entrepreneurship; more plainly, turning your farm into a business….Agripreneurship is a mental attitude that can give you the strength and motivation to break from tradition. Sustainable agriculture is a site specific, whole farm approach to agriculture. Land, people, goals, capital, crops, and livestock are managed to yield the best possible results on the farm.

Agripreneurship is defined as generally, sustainable, community-oriented, directly marketed agriculture. Sustainable agriculture denotes a holistic, system-oriented approach to farming that focuses on the interrelationships of social, economic, and environmental processes.

ROLE OF AGRI-ENTERPRISES IN POVERTY REDUCTION

- Reducing food costs, supply uncertainties and improving the diets of the rural and urban poor.
- Generating growth, increasing and diversifying income, and providing widespread employment and entrepreneurial opportunities in both rural and urban areas.
- Inducing productivity gains by smallholder farmers and integrating them into local, national and international markets.

REQUIREMENT OF AGRIPRENEURSHIP DEVELOPMENT

- Increasing demand for organic/quality food has become the concern of both in India as well as abroad where market growth of around 15-25 per cent per year.
- Competitive advantages for many primary production activities in agriculture. Rain-fed farming, tropical fruits and vegetables, livestock's, animal husbandry, aquaculture, wild craft, etc. are produced through real low cost production methods.
- Private sector is willing to enter into agri-business at all levels of its operations. Changing consumers' demand and retail revolution has opened the doors for investments by private sector in agribusiness like Reliance, Bharti, Pantaloons, Carrefour, etc.
- To reduce malnutrition: The women and children of the country are malnourished. As per Pt. Jawaharlal Nehru said that "You can tell the condition of a nation by looking at the status of its women."

It is now widely accepted fact that sound agricultural development is essential for overall economic progress. Given its range of agro-ecological setting and more than 120 million farmers, agriculture is faced with a great diversity of needs, opportunities and prospects. If it is to respond successfully to the new challenges posed, greater attention will have to be paid to information-based technologies, strengthen means of dissemination to transmit the information to farmers.

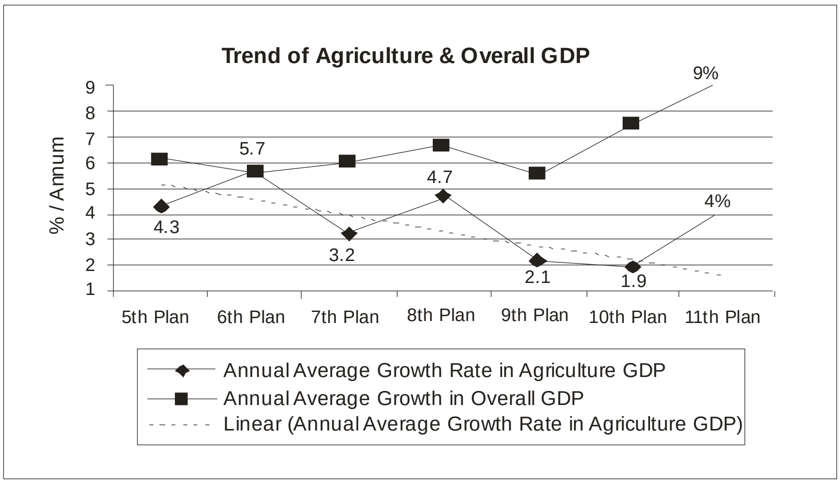
Agricultural Policy Formulation through Five Year Plan

Plan Period	Major Issues and Policy Trust
First plan 1951-56	Severe food availability constrants maximisation of agricultural production, food distribution network, and nationwide community development programme institution for village development. Skewed land distribution, inefficiency in production and thus land reform.
Second plan 1956-61	Irrigation development for thrust areas. Land reforms enactments of laws, tenancy reform and ceiling on holdings. Soil conservation as an important programme.co-operative development institutions national extension service blocks created.
Third plan 1961-66	Adoption of improved technology to increase land productivity. Bringing the lagging region under mainstream growth. Intensive area development programme adopted for selected area. An integrated land policy approach.
Fourth plan 1969-74	Regional inequality and correction of regional imbalances. Incentives created for diversion of land towards food crops and enhancing the capacity of such land. Increased emphasis on irrigation and soil conservation in dry land regions and technological change introduced. Emergence of agri, price policy. Concern about domination of large holding sizes and low locative and technical efficiency Institutional changes in credit, agri, extension and training.
Fifth plan 1974-79	Twenty point economic programme, concern to eradicate poverty intensified. Drought prone areas attracted attension. Desert area development programme and soil conservation was enhanced.
Sixth plan 1980-85	Minimum need programme. Drought prone areas continuous to get attraction. Further attention for lagging areas on the backdrop of green revolution. Land and water management programme under drought prone area programme in selected areas.
Seventh plan 1985-90	Soil erosion and land duration surfaced as major issues. National watershed development programme, oilseed and pulses development programmes, and long term view of land management was initiated.
Eighthplan 1992-97	Liberalization and globalization in agricultural sector, trade sector priorities by generating surplus of agricultural commodities for export. Emphasis on oilseed sector increased. Agro-climate

	regional planning approach was incorporated. Productivity enhancement schemes. Horticulture sector to be encouraged Soil conservation merged with watershed programme.
Ninth plan 1997-2000	Export oriented growth and emphasis on horticultural crops for exports. Integrated watershed programme across various components. Bringing the underutilized land under cultivation. Management of waste lands. Panchayatraj institutions to manage the village lands.
Tenth plan 2002-2007	Increasing the mobility of all the available financial resources of India, and optimizing them as well Setting up of a state-of-the-art infrastructure for all the existing industries in India. Encourage the initiative of capacity building within the Indian industrial sector. Creating a friendly, amiable and pleasant investment environment in India Encouraging sufficient transparency in the corporate sectors of India. Introduction of reforms in the industrial sectors, which are more investor-friendly in nature.

According to the report of the Working Group on Crop Husbandry, Agricultural Inputs, Demand and Supply Projections and Agricultural Statistics for the Eleventh Five Year Plan (2007-12) ii, the vision for 11th Plan aims to achieve 9 per cent per annum overall economic growth and growth at 4.1 per cent per annum for agriculture and allied sector (Crop Husbandry, Horticulture, Livestock, Fisheries, Forestry and Logging). This amounts to doubling the achievements of the 9th and the 10th Plan in agricultural sector.

The prime concern revealed by the review of agriculture in the past decade is the loss of growth rhythm in crop husbandry sector that was build up during the green revolution and had helped the sustained food security in the decades of eighties and nineties. After leading the economy with the impressive growth of 5.7% per annum during the 6th plan (1980-81 to 1984-85), the slackening trend of agriculture growth had set in. During the 9th and 10th Plan the growth was modest 2%. In contrast the economic reforms initiated in the nineties yielded accelerated growth of non-agriculture sector. As a result the economic gap between agriculture and non-agriculture gradually widened and in 2005-06 the share of agriculture in the total economy had fallen below 20%. The slow agricultural growth begun during the last decade and is continuing since then. Against this background, the envisaged growth of 4% during 11th Plan would necessitate special efforts for reversing the current trend of growth. The growth of agriculture and allied sector in terms of macro GDP indicators was most impressive during the period of 6th Five year Plan (1980-81 to 1984-85). After reaching a peak of 5.7%, the annual average growth of the sector moderated to 3.2% and 4.7% per annum respectively during 7th and 8th Five Year Plan respectively. The deceleration of agriculture sector growth had sharpened in the late nineties as was evidently reflected by the modest 2.1% growth during 9th plan. First four years of the ongoing 10th Plan witnessed further erosion of growth to less than 2 percent.



The performance of Indian Agriculture was most impressive during 6th Plan 5.7 and the growth of agriculture and allied sector led the overall growth of the economy. In subsequent Plans, the growth of agriculture and that of non-agriculture moved in different trajectories. While the overall growth of economy accelerated, the growth of agricultural sector decelerated. The growth retardation had gradually set in after the 8thPlan and was not the making of 10th Plan. It had been fermenting and firming up over the past decade. As a result, the gap between the growth of agriculture and allied sector and that of rest of the economy continued widening and the share of agriculture and allied sector in total economy started falling steeply. The endeavor of achievement of 9percent growth of overall economy in 11th Plan is to sustain the growth target for agriculture and allied activities that will necessitate special efforts for reversing the trend of growth deceleration. These will require not only short term measures, but also steps from medium to long term perspective. In order to provide flexibility to the States in implementation based on regionally differentiated approach, to promote crop diversification and to provide focused approach to the programmers, the four erstwhile schemes of OPP, OPDP, NPDP and AMDP have been merged into one Centrally Sponsored Integrated Scheme of Oilseeds, Pulses, Oilpalm and Maize (ISOPOM) being implemented from 1.4.2004. There are some other programmes as National Pulses Development Project (NPDP), Accelerated Maize Development Programme (AMDP), Post Harvest Technology (PHT), Oil Palm Development Programme (OPDP), National Oilseeds and Vegetable Oils Development (NOVOD) Board, UNDP Sub-Programme on Maize based Cropping System for Food Security in India.

11TH FIVE YEAR PLAN AND AGRICULTURE AND RURAL DEVELOPMENT

The specific problems of Indian agriculture, and concerns relating to farmers' welfare, have been addressed in the five Reports of the National Farmers Commission under chairmanship of Prof. M.S. Swaminathan. According to this report some major areas of concerns are as follows:

Some Major Concerns

Deceleration in agriculture growth: In the last decade there has been a sharp deceleration in Indian agriculture with the growth rate of agriculture GDP slipping from 3.62% during 1984-85 to 1995-96 to less than 2% in the period from 1995-96 to 2007-08. Further, state-wise trends indicate that the largest slump occurred in those areas/states that are predominantly rainfed.

State	**Growth rate in NSDP Agriculture**		**Rain fed %**	**State**	**Growth rate in NSDP Agriculture**		**Rainfed %**
	1984/5 to 1995/6	**1995/6 to 2007/8**			**1984/5 to 1995/6**	**1995/6 to 2007/8**	
Punjab	4.00	2.16	3	Gujarat	5.09	0.48	64
Haryana	4.60	1.98	17	Rajasthan	5.52	0.30	70
Uttar Pradesh	2.82	1.87	32	Orissa	-1.18	0.11	73
Tamil Nadu	4.95	-1.36	49	Madhya Pradesh	3.63	-0.23	74
West Bengal	4.63	2.67	49	Karnataka	3.92	0.03	75
Bihar	-1.71	3.51	52	Maharashtra	6.66	0.10	83
Andhra Pradesh	3.18	2.69	59	Kerala	3.60	-3.54	85
All India	3.62	1.85	60	Assam	1.65	0.95	86

Growth Rates of Agriculture Sdp, States Ranked By % of Rainfed Area

A particular area of concern is food grains, whose production during 10th plan was less than during 9th plan. Per capita annual production of cereals has declined from 192 kg in 1991/1995 to only 174 kg in 2004/2007 and of pulses from 15 kg to 12 kg. There is need to ensure growth in foodgrain production of at least 2 percent per annum in the 11th Plan. Horticulture is the key driver for higher value addition and where output must grow at about 6% per annum for overall agricultural growth to reach 4%.

Technology Generation and Dissemination: With availability of land and water fixed, the goal of 4% growth in agriculture can be achieved only by increasing productivity per unit of these scarce natural resources through effective use of improved technology. The research system has so far focused mainly on breeding varieties that increase the yield potential of individual crops by enabling more intensive use of inputs. Technology fatigue has to be addressed urgently by changing research priorities suitably.

Degradation of Natural Resources: Deforestation has affected both soils and water. A concerted effort is needed to afforest upper catchments at higher elevations of river basins. Soils are losing soil carbon and micronutrients due to irrational and unbalanced fertilizer use. This must be addressed urgently since nearly 2/3rds of our farmlands are in some way either degraded or sick and only about 1/3rds are in good health.

Subsidies vis-a-vis Investments and Farm Support Systems: An unfortunate trend over the past two decades has been that budgetary subsidies to agriculture have increased from around 3% of agriculture GDP in 1976-1980 to about 7% in 2001-03. During the same period, public investment in agriculture declined from 3.4% of agriculture GDP to 1.9%. Most of the subsidies are on fertilizer, power and irrigation water and have actually contributed to the degradation of natural resources.

Agriculture's Terms of Trade and farm price volatility: An important reason for recent farm distress was that farm prices fell even as farm production decelerated. After improving steadily from 1980 to 1997, the terms of trade turned against agriculture between 1999 and 2004 and reduced profitability of farming quite sharply. This occurred partly because domestic food demand slowed down and partly because Indian farm prices became more aligned with corresponding international prices at a time when world commodity prices were on the decline. Moreover, farmers are now subject to greater price risk since variability of world prices is much higher.

The Eleventh Plan strategy must address the longer-run issues. These converge on the following:

- Get technology moving and ensure access of farmers to this
- Increase investment, efficiency and systems support, rationalise subsidies

Technology: Immediate action points in this area are:

- Priority in agriculture research should be given to strategic research.
- Research priorities have to shift towards evolving cropping systems suited to various agro-climatic conditions and towards enhancing the yield potential in rainfed areas through development of drought and pest resistant varieties.
- The ICAR must restructure accordingly, and increase its accountability.
- SAUs also need to be made more accountable, and strengthened to develop, refine and promote location specific technologies.

  All this will require more resources, and public expenditure (both plan and non-plan, Centre and States) on agriculture research will need to increase from around 0.7 % of agriculture GDP at present to 1% by end of 11th Plan.
- Improving the governance of the National Strategic Research Fund within the Ministry of Agriculture. An expert body independent of the National Agriculture Research System (NARS) can assess potentials and constraints, including climate change, and set the priorities for the much enhanced strategic research required. The fund should be able to finance research not only within ICAR and NARS, but also in UGC Universities, CSIR laboratories and in private research institutes.

- Linked to this, creation of high-level expert committees at the Centre and in States to oversee an expanded but incentivised support to State Agriculture Universities (SAU) to revitalise these for location-specific research and to enable these to forge stronger direct links with farmers through the extension machinery and village-level Knowledge Centres.

Irrigation: The 11th Plan envisages creation of an additional potential of 16 million hectares at an estimated required outlay of about ` 2,10,000 crores. Since irrigation is a State subject, most of this (about ` 172,000 crore) has been ear-marked for financing by States, and an analysis of States' own preliminary 11th Plan allocations shows that this might actually be exceeded. Further, guidelines for the Accelerated Irrigation Benefits Programme (AIBP) have already been changed to expand its scope and to increase the Central share for selected areas.

The main outstanding issues on Major & Medium irrigation relate to inter-State projects and on whether Central guidelines on benefit-cost ratios and dependability need to be relaxed. In particular, much greater emphasis is required on investments in physical rehabilitation and on modernisation of systems essential for improving the efficiency of water use. With this in view, it is suggested to:

- Increase the allocation to AIBP during 11th Plan but with much more effective monitoring using remote sensing data to incentivise the Central funds flow to the States.
- Improve contract management through "fixed-time fixed-cost" contracts.
- Consider at least one model physical modernisation project in each State.
- Put much more emphasis on Participatory Irrigation Management (PIM), including collection and retention of water rates by water user associations, to reduce the gap between potential created and the actual utilised.
- Prepare comprehensive water balance accounts of current use, both at the system level and at the level of water user associations, to highlight the extent of avoidable waste and identify possibilities of reducing this through better regulation of water deliveries and conjunctive use.
- Restructure the subsidy structure on micro-irrigation equipment to enable promotion of community sprinkler systems by water user associations.
- Use NREG/BRGF funds to supplement Command Area Development.

Use of groundwater sustainable: A sharp focus is required on making the use of groundwater sustainable in other parts of the country where withdrawal currently exceeds recharge. For this:

- There must be regular and accurate assessment of actual groundwater used in both rural and urban areas to correlate this with recharge and extraction.
- Separation of feeders for domestic and agricultural power and its timely but controlled supply for irrigation can be an effective mechanism to regulate water use.
- Ways must be explored to empower and entrust village communities with the right and responsibility to collect electricity charges and in dark blocks to regulate access through, for example, obligation on groundwater users to undertake rainwater harvesting and groundwater recharge.

Natural Resources Management and Watershed Development

For the 11th plan, both the NDC and XIth Plan Working Groups have recommended accelerating the pace of watershed development to cover about 38 mha. Moreover, to sustain people's participation, both Working Groups have suggested longer treatment and inclusion of a farming systems component. With the higher unit costs envisaged, and including soil conservation measures, this would require a minimum investment of ` 36,000cr on Natural Resources Management (NRM) during the 11th plan.

Diversification and Food Security

Available demand projections suggest that foodgrains demand, including for uses other than for direct human consumption, will grow at 2 to 2.5% per annum during 11th plan, traditional cash crops such as oilseeds, fibres and sugarcane at 3 to 4% per annum and livestock and horticulture at 4 to 6% per annum.

Projections of 11th Plan Outlays

Approximate financial requirements/allocations for the agricultural sector (excluding irrigation) emerging from initial discussion with Central Ministries and States thus far are:

	10th Plan (outlay)	10th Plan Exp	11th Plan
Centre	21,068	24,867	93,000
States	37,865	31,240	50,000
Total	58,933	56,107	143,000

While the increase in overall total is not unreasonable, the proposals imply a reduction in States' share and increased dependence on the Centre. This implies that the share of agriculture in the annual plan outlays of States, which had already declined from 5.2% in 2002-03 to 4.7% in 2006-07, would fall further to about 3.5% during the 11th Plan. On the other hand, the share of agriculture in the Centre's Gross Budgetary Support to the Plan, which increased from 2.5% in 2002-03 to 3.8% in 2006-07 would need to rise to over 6% in the 11th plan. This is not a desirable pattern of expenditures for a sector which is in States' domain, and nor is it likely that the Centre would be able to fund such a large increase in agriculture's share given the competing demands especially from the social sectors.

Another major problem is that the entire thrust as appears from initial discussions is business as usual, with inadequate attention to longer-term natural resource issues. The NRM component is negligible in both Centre and State proposals. To upscale this activity the projected 11th Plan requirement for irrigation and NRM will be about ` 250,000 crores. This should also be possible if the combined allocation on these grows 12% annually from 2006-07 onwards. But, as mentioned earlier, it is mainly the States that would have to shift their own spending gradually from irrigation to NRM.

Government's Initiative

In the period between 2003-04 and 2008-09, the Indian Government increased Agriculture Budget allocation by a significant 300 per cent.

The Rashtriya Krishi Vikas Yojana was launched in 2007-08 with an outlay of ` 25 thousand crore, to increase the growth rate of the Agricultural Sector to four per cent per annum during the Eleventh Plan period. The scheme has encouraged State Governments to develop their agricultural sectors.

This has included measures to increase the flow of credit to agriculture. Credit disbursements have already gone up from ` 87 thousand crore in 2003-04 to about ` 2.5 lakh crore in 2007-08, a threefold increase in credit as a result of successive Agriculture Budgets. To strengthen the short-term co-operative credit structure, the Government is implementing a revival package in 25 States involving a financial assistance of around ` 13 thousand five hundred crore, and it will continue to provide interest subvention in 2009-10 to ensure that farmers get short term crop loans up to ` 3 lakhs at 7 per cent per annum.

The Agricultural debt Waiver and Debt Relief Scheme for farmers from the 2008 Agriculture Budget was implemented by June 30, 2008 as scheduled. The Scheme has been able to restore institutional credit to indebted farmers. The total debt waiver and debt relief so far, amounts to ` 65 thousand three hundred crore covering 3.6 crore farmers.

The Interim Agriculture Budget continues the commitment of "food security" in India. This includes meeting the food requirement of the poor under the Targeted Public Distribution System (TPDS). In spite of higher procurement costs and higher international prices during the last five years, central issue prices under the TPDS have been maintained at the level of July 2000 in case of Below Poverty Line (BPL) and Antyodaya Anna Yojana (AAY) categories and at July 2002 levels for Above Poverty Line (APL) category.

Agricultural Budgets also work to ensure remunerative prices for the farmers for their crops are fair. Since 2003-04, Minimum Support Price (MSP) for the common variety of paddy was increased from ` 550 to ` 900 per quintal for the crop year 2008-09. Wheat prices have increased from ` 630 in 2003-04 to ` 1,080 per quintal for the year 2009.

RURAL DEVELOPMENT BUDGET - INDIAN INTERIM BUDGET 2009, RURAL DEVELOPMENT SECTOR

The Indian Government continues to accord highest priority to rural development. A number of programmes have been designed to help improve the living conditions of the rural population. The programs designated under the Indian Interim Budget 2009 are:

(i) The Rural Infrastructure Development Fund (RIDF).

(ii) Indira Awaas Yojana (IAY).

(iii) Panchayat Empowerment and Accountability Scheme (PEAIS).

(iv) Project Arrow.

The primary components of capital receipts include loans brought up by Government of India from public, termed as market loans. Some of the other components of capital receipts include borrowings by Government from Reserve Bank and loans obtained from foreign governments and bodies. The primary components of capital payments include capital expenditure on acquisition of assets like equipment, machinery, land and buildings.

Problems of Entrepreneurship Development

Entrepreneurship in agriculture is not only an opportunity but also a necessity for improving the production and increasing profitability. However, the rate of success is not bright as it should be in India, because of the following reasons.

- For most of the farmers, agriculture is mainly a means of survival. In the absence of adequate knowledge, resources, technology and connectivity with the market, it is difficult for the illiterate small holders to turn their agriculture into an enterprise.
- Before promoting various services by self employed persons, there is a need to create awareness among the farmers, who are the users, about the benefits of these services.
- For popularization of services, the present practice of providing free service by the Government agencies should be discontinued. In fact, many farmers, particularly the politically connected leaders are of the impression that the government is responsible for providing extension and technical advisory services to the farmers. However, over the years, the credibility has eroded and the services of these agencies are not available to small farmers, particularly those living in remote areas. Nevertheless, the concept of free service makes the farmers reluctant to avail of paid services, offered by the local self-employed technicians.
- The self-employed technicians need regular back up services in the form of technical and business information, contact with the marketing agencies, suppliers of critical inputs and equipment and research stations who are involved in the development of modern technologies.
- There are several legal restrictions and obstacles, which come in the progress of agri-business, promoted by the People's Organizations and Cooperatives. Private traders engaged in such business tend to ignore these rules and disturb the fair trade environment.

- People's Organizations often hesitate in taking the risk of making heavy investments and adoption of modern technologies, which in turn affect the profitability. With low profitability and outdated technologies, farmers lose interest in their own enterprises as well as in that of their leaders.

Problems of Rural People

As a result, rural people are facing the problem of unemployment. In spite of agriculture being a major source of livelihood, the productivity as well as profitability in agriculture has been significantly low in the country. While the productivity can be attributed to illiteracy, lack of awareness, poor dissemination of technology, inadequate investment in agricultural inputs and poor communication and information services, whereas lack of profitability is mainly due to inadequate and inefficient infrastructure required for forward and backward integration, poor post harvest and processing facilities and poor connectivity with market, resulting in exploitation by large number of middlemen.

Strategy for Promotion of Successful Agri – Enterprises

Considering the present problems faced by the entrepreneurs engaged in agri-business, it is necessary to create a congenial atmosphere in the field. Some of the important conditions necessary for successful agri-business are presented below:

- There should be a unanimous option among government officials and farmers about the need and benefits of promoting self-employed youth or private entrepreneurs to facilitate the farmers to enhance agricultural production and profitability.
- The Government should discontinue the practice of providing free services in those sectors where the work has been assigned to private entrepreneurs.
- The technical skills and ability of the entrepreneurs should be evaluated to ensure high standards. There should be a monitoring agency to check the quality of the services and the charges collected from the farmers to avoid exploitation.
- To popularize the services of the entrepreneurs, the Agricultural Extension Agencies and Farmers Organizations should give wider publicity about the services available to the farmers. Such publicity can enhance the credibility of the services provided by the entrepreneurs.
- The Government should encourage the entrepreneurs by introducing various concessions and incentives.
- Networks of entrepreneurs may be established to share their experiences. These networks can also establish a close link with Research Institutions and Universities to become acquainted with the latest research findings and seek solutions for their field problems.

CONCLUSION

There is a need of inevitable change. Agriculture must be considered as an enterprise, which should have a sound management back-up. As in any other enterprise, there should be proper planning about demand forecast, choice of technology, inventory of resources, need for external inputs, skill level of the available human resources and their training needs, infrastructure and services needed for carrying out various operations and marketing. This change in the mind set among the farmers and Agricultural Extension Agencies is the primary step for promoting successful entrepreneurship in agriculture. Therefore, it is the need of the hour to move from “Green Revolution” to “Evergreen Revolution” and from “Unicolor Revolution” to “Rainbow Revolution”. This is possible if we concentrate on entrepreneurship in various spheres with proper dedication and commitment. The agriculture sector has a large potential to contribute to the national income while at the same time providing direct employment and income to the numerically larger and vulnerable section of the society. The government must Increase investment, efficiency and systems support and there should also be rationalise subsidies.

The main thrust of the policy should be to secure demand supply balance in various agricultural commodities. Priority in agriculture research should be given to strategic research. The need is to build an economically and commercially feasible agricultural sector which is integrated with the other sectors of the economy to fulfill the requirement of rural and urban population.

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ISBN: 978-93-5051-662-1

7 Global HR and Economic Recession

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ABSTRACT

This paper will deal with the topics like how countries entered in to recession and Companies that give way to short-term disruptions poorly equipped to cope with these structural changes in the global labour market, recession put up its impact in a form of raising unemployment. The sharp rise in worldwide unemployment rates resulting from the economic recession has diminished the urgency of the global war for talent, as corporate managers undertake mass layoffs and workers focus on job security. Globalisation, demographic shifts, technological advances, shortages of skilled professionals, persons into the work force. The new model of human resource management demands HR professionals who possess an understanding of the role of human capital in corporate strategy, a capacity to navigate a complex and diverse global labour market, and an ability to engage young employees who bring different values and expectations than their predecessors. Effective human resource management also requires the active participation of senior corporate executives who can identify rising stars in the organisation, mentor aspiring leaders, and transcend organisational turf battles that encourage divisional hoarding of talent. The global recession presents an opportunity for strong companies to strengthen their human resource capabilities, including hiring of talented individuals caught in corporate downsize. The study is based on secondary data. Secondary data had been collected from various books and journals. The study covers the thoughts and writings of various authors in the stream of industry, academician, and research. The Journals and books have been referred were described in the References.

Keywords: Recession, HR, Companies, Strategic HR Management.

INTRODUCTION

A recession does not only slow down the economy, but it also has the ability to decrease the drive of employees. When an organization is affected by a recession, production, or lack thereof, becomes an employee's concern as well. Companies that yield to short-term disturbances in the global labour market place themselves at risk of losing their long-term competitiveness. Most of the countries all over the world are going through this phase of economic recession. Many old and big companies have already been brought down on their knees to bite the dust. This was not the first time that the global economy gone through recession and this is also not the last time. There is a pattern involved in it. On an average recession happens after every 8-10 years. Global recession raises a lot of questions and only a few are given answers and uncertain answers at that. Everyone in the professional world struggles to be at their optimum just to survive these hard times, which we do not really know for sure until when it would last. We can even compare this scenario with Charles Darwin's very own evolution theory, which outlines 'survival of the fittest'. And anyone who can make it through this crucial period of time would certainly come out stronger. Companies are certainly not exempted from this rule. Struggling to survive as best as they can, companies would then have to employ certain strategies just to stay afloat and swim through the rough waves. Cost cutting is inevitable here so there is always that possibility of companies' layoff people. Likening a company to a ship that has too many passengers onboard, some of them need to be taken off the boat so that the majority of the passengers and the boat itself can survive. The weakening of the global labour market affects a broad spectrum of industries and occupations. Workers in financial services, manufacturing, and retailing face massive job cuts. Managers and engineers previously ensconced in comfortable positions at high-growth companies also confront growing uncertainty as the downturn spreads to once-robust sectors of the global economy. Even rising stars at technology companies accustomed to poaching by rival firms are now hedging their bets and focusing on immediate job security.

INTENDED ADJUSTMENT TO RECESSION

Recession For some forecaster recessions are regarded as periods of 'creative destruction', during which some businesses and industries decline, often terminally, while new ideas, technologies, products and industries emerge and become the driving forces of subsequent economic activity and growth. Recession conditions contribute this economic restructuring through stimulating business churn, the entry and exit of firms, and by motivating incumbent firms to adapt products and business processes. Participants believed that dynamic, innovative new businesses always play important role to play in leading the economy out of recession.

Organisational inaction and opportunity. Adapting to environmental shocks, including recession, is a capability business leaders have to develop in order to survive. One view argues that, during recession, incumbent firms tend to suffer from organisational inertia, which prevents them from adapting appropriately to environmental shocks. Conversely, the study of business behaviour in recession treats firms as more willing to innovate because the opportunity costs of not undertaking such action are lower than during more floating times. A news says that Japan and Russia, suggests that recession imposes threats on businesses but also opens up new opportunities.

Business strategies. Recessions brings present businesses in predicament: either to cut costs to conserve resources, or to invest in new products and processes to exploit competitor weakness. In general terms, let us identifies three broad categories of strategy in recession conditions: economizing, venture, and mixed strategies.

- *Economizing strategies* involve cutting operating costs and divestment of non-core assets. These appear to be the most common approaches adopted by businesses to deal with recession conditions, especially in the short-term. Analysts report divestment of businesses, closure of establishments, reductions in employment; expenditure cuts on a wide range of activities including R&D, marketing and employee training.
- *Venture strategies* involve expenditure on innovation and market diversification. Recession is regarded as an opportunity to implement strategic change that would otherwise not have occurred. Many of today's household names launched successful businesses during recessions. The evidence on businesses adopting investment strategies to manage through recession, however, is patchy. Such strategies are risky and many firms are likely to be too preoccupied with short-term survival to think about innovation and growth, or lack the resources to implement such strategies effectively.
- Mixed strategies unite retrenchment and investment. It is likely that most firms adapt under recession conditions through judicious cost/asset-cutting behaviour and through investment in product innovation and market development. Choosing the appropriate investments to make and costs to cut takes on additional importance during recession when market selection pressures are at their most severe.

STRUCTURAL FACTORS

The structural factors behind the war for talent remain intact despite the economic decline those are:

- Globalisation heightens the importance of human capital as a competitive asset, particularly for companies based in high-income economies that rely on productivity gains to neutralise the labour cost advantages of emerging market competitors and recession proved its mark on accepting only fittest.

- Demographic patterns clearly point to future labour shortages in North America, Europe, and developed Asia, where fertility rates are low and aging workers are approaching retirement.
- The increasing technological content of global services and manufacturing raises the premium on highly talented employees, who enjoy high international mobility and multiple professional options.
- Deficiencies in production of university-trained scientists and engineers in Western countries widen gaps between workforce capabilities and enterprise requirements, compelling many American and European companies to tap the labour-rich emerging markets for skilled workers.
- The entry of growing numbers of Generation Y members into the global labour market in coming years raises new challenges for corporate managers, who must compete globally for talented young professionals bringing different values and expectations into the workforce.

GLOBAL SCENARIO

Countries which are highly affected in recession	Countries that are Least Affected by Recession
United States of America	Australia
Mexico	China
Iceland, Ireland	India
Spain	Singapore
United Kingdom	Hong Kong
Denmark	Canada
Germany	Japan
Italy	Qatar
Egypt	New Zealand
South Africa	Malaysia
Japan	Sweden
	Vietnam

Source: Herald Sun and Servcorp, the company that commissioned the survey

Countries which are Highly Affected in Recession

United States of America Since the start of the recession in America, the most powerful country in the world saw their banking system falter, the housing market crash, and the level of unemployment increase and inflation rise. These are not great results for the biggest economy in the world. Mexico: Being the neighbour of the most powerful country in the world is not easy; Mexico who becomes vulnerable every time the economy of the United States suffers. Due to the current economic crisis, combined with little consumer credit and slump in house prices, the Mexican residents felt the pinch of the recession. It also affects tourism and the property market in the country. Venezuela seemed to have escaped with recession so far with high oil prices and rich reserves. But this could come to an end with oil prices continued to drop, with the recession waiting to rear its ugly head. Iceland was one amongst the country felt pressure of the recession in a big way. The Icelandic banking system no longer trusted, and the economy landed on a sad state of affairs. Inflation and interest rates also raised at an alarming rate. In fact, that the Icelandic national currency was worth not much more than the ever dropping Zimbabwe dollar. Ireland was one of the first countries in Europe to enter a recession. Their economy dropped by 0.3%, and continues to do so. Spain officially entered recession in 2008, when the economy took a dip by 1%. United Kingdom: Britain seems to suffered the most from the recession, and it was predicted that the country will only start seeing the light towards the end of 2009. In the mean time the economy fall, having dropped by 0.5% between July and September in 2008.Denmark was been in recession for a while after an increase in food and fuel prices. Employment was also low, and labour productivity was falling, adding to inflation. Germany as the largest economy in Europe, therefore a recession could cause unnecessary damage. Germany had been in recession since 2008, having suffered a 0.5% drop in 2008. Italy always had economic problems compared to the rest of Europe, brought on by huge public debt and low labour productivity. Egypt is a country which relies heavily on tourism and, with the recession, the travel and tourism industry has shown a decrease. Also, food prices increased in the country, which has resulted in 40% of the population living in poverty. South Africa also saw the effects of the recession with higher interest rates and banks tightening their belts on lending conditions. But thankfully, with the 2010 Football World Cup around the corner, investment in the country grew, and they got much needed tourism boost. Japan entered in to a recession after the economy was hit by weak exports and falling corporate investment. Japan, known as the second biggest economy after the United States, fell by 0.1% during the July-September period of 2008. In these ways the countries faced lot many problem because of recession and had a very bad impact on the employment segment because of economic recession.

Countries that are Least Affected by Recession

Australia takes the top spot followed by China with India and Singapore in equal third place. Qatar is the only gulf nation that figures in this "relatively" recession-proof list. The data is based on the results of a business confidence survey that was done on international business people of 24 nations to identify which countries they believe are surviving the crisis the best. The countries perceived to be surviving the economic crisis the best, as voted by international business people.

BIG CORPORATE WITH GREAT NUMBER OF LAYOFFS

During the economic turmoil great number of layoff observed and it has its negative impact too to those big names which was under the trap of recession. Some of the names of the big guns and the number of job cut are mentioned below.

General Motors: Number of jobs cut since recession began: 107,357.The entire auto industry felt the pain of the recession — U.S. car sales dropped from an average 16 million a year in 2005 to 11 million in 2009. GM was especially hard hit, forcing it to cut tens of thousands of workers. The largest layoffs came in February 2009, when the company let go of 50,000 people — almost 20% of its workforce. Those cuts, however, weren't enough to keep the company solvent. GM ended up filing for bankruptcy protection some time later.

Citigroup Number of jobs cut since recession began: 73,056 Vikram Pandit, CEO of Citi, announced that financial firm had no alternative than to cut 50,000 jobs as part of a plan to knock down expenses by 20%. The bank was reeling from subprime mortgage losses that had driven its stock down from $35 to under $4 in less than a year. Lehman Brothers had just collapsed, and investors holding shares in America's largest banks were in a panic.

Hewlett-Packard Number of jobs cut since recession began: The world's largest tech company also let go almost 6,000 workers in 2009 as it combined two divisions and 9,000 in its struggling enterprise services operation in June.

Pfizer Number of jobs cut since recession began: 31,771 Pfizer suffered from a slowdown in sales after many of its drugs went off patent and generic-drug companies poached sales. The drug maker was forced to cut R&D spending and pare the size of its sales force in 2008. Then, after its mega-merger with Wyeth, Pfizer instituted even more layoffs. it will continue major downsizing through 2012.

Merck & Co. Number of jobs cut since recession began: 24,400 As a result of Merck losing patent protection on many of its major drugs, it has embarked on several rounds of jobs cuts. The biggest blow came when the company decided to cut 15,000 people who were considered "redundant" after Merck bought rival Schering-Plough.

JPMorgan Chase Number of jobs cut since recession began: 22,852 The credit crisis caused the near-collapse of big mortgage lender Washington Mutual. JPMorgan bought most of the faltering company and cut redundant staff, including 9,200 workers in December 2008.

Starbucks Number of jobs cut since recession began: 21,316 Starbucks is a victim of its own success. Its rapidly expanding popularity caused it to open thousand of stores between 2000 and 2007. But when the recession sparked consumers to cut back on the $4 lattes, it started to feel the pain of sliding sales. The company even called back founder Howard Schultz to be CEO. To bring costs in line with falling revenue, Schultz closed 300 stores and fired 6,000 workers in January 2009.

Ford Motor Number of jobs cut since recession began: 15,912 like many other automakers, Ford felt the pain of nose-diving sales. Not only did the company have to cut workers at its core business but also at its Ford Motor Credit unit, which recorded a net loss of $228 million in the last quarter of 2008. The company also had to write down $2.1 billion in leases and car loans.

United States Postal Service Number of jobs cut since recession began: 15,000 Competition from faxes, email and overnight mail carriers, as well as rising costs, took a toll on the US Postal Service. In March 2009, it closed eight of it 60 district offices, offered buyouts for the rank and file and sharply cut administrative staff.

DHL Express USA Number of jobs cut since recession began: 14,900 DHL couldn't keep up with competition from UPS and FedEx, and it lay off almost 10,000 workers when it decided to exit the ground- and air-delivery business in US completely in November 2008.

Sun Microsystems Number of jobs cut since recession began: 14,000 Sun Microsystems tried to cut its way to profitability for years before it was purchased by Oracle in 2009. The company's core server business couldn't compete with larger rivals IBM and HP. In November 2008, Sun cut almost 6,000 people — over 15% of its workforce.

Chrysler Number of jobs cut since recession began: 13,672 the bad fortunes of the car industry caused the third-largest U.S. carmaker to lay off 12,000 people in late 2007. Later, the company fired another 5,000 employees — or about 25% of its salaried workers. Unfortunately, even after all those cuts, Chrysler still filed for bankruptcy protection.

Source: Daily Finance Article by Douglas McIntyre Dt: 08/18/10

THE UNDERLYING EFFECTS OF RECESSION ON PERFORMANCE

Companies all over the world are struggled with recessionary phase. The effects of recession on performance are very discouraging. Companies need to deal with these as proactively as they should.

The effects of recession on performance across all companies and industries are certainly being felt all over the world. In fact, there just might be no country anywhere that had not felt the effects of the present economic downturn. There are even so many companies who had already declared bankruptcy and this does not exempt even the big ones. Yes, a number of multibillion dollar corporations certainly dropped off the high pedestals they used to occupy and this led to millions of people losing their jobs. Employees all over the world are indeed feeling the pressure and are getting more and more scared of the possibility of losing their jobs.

The act of layoffs workers is certainly one possible and commonly experience effect of recession. This, in turn, can do a lot of damage on employee morale. Once layoff starts, employees just might find themselves at the losing end of the equation so most, if not all, would start looking for other companies to work for. Of course, most would still wait until they get the boot because the chances that other companies would be hiring in this dire time of recession would still be slim. However, because employees are starting to look somewhere else, then they would be distracted and would not be able to work as productively as before. Moreover, they would not even be motivated to do their jobs well. With employee morale degrading, driving employees to perform at their best would certainly be made more difficult.

Moreover, the perks employees used to enjoy would also be minimized. Those benefits in the form of retention allowances, incentives, and bonuses — all these and more would have to be withdrawn or frozen for the time being. And you would not even be able to say for yourself that these benefits would be placed back in the picture when the global economy would finally start improving. Hopefully, these would be retained by that time. The effects of recession on performance are certainly discouraging in nature. That is why companies need to do all that they can to handle the passing of this economic downturn as well as they can. The best thing we can plan in this regard is better functioning of HR can only foster new spark.

From the above context to give a brief note we can say that the most critical HR issues that organizations face because of the recession are as follows:

- Stability of finance is the most crucial issue and it is the need of hour to reduce expenses, including salary expenses, and yet maintain vital workforce.
- Management of talent and staffing is an issue to assure the right manpower for the business level because Forecasting sales become very difficult.
- Business stability/efficiency.
- Employee engagement and retention on talented personnel are significantly or moderately higher priority in the recession than prior to the economic downturn.
- Employee morale keeping employee morale positive during a time of staff reductions and short working hours is among most critical HR issues.

RECESSION AND GLOBAL HUMAN RESOURCE MANAGEMENT AS STRATEGY

The recession is about the how effectively we make use of Human Resources Management. We saw that major number of layoff problems faced by those big players of business. So the HRM Function is asked to bring new ideas, to change the HRM Processes and to develop or change the procedures. And this effort has to be cheap or it has to cut the costs of the organization. The senior management expects all the support functions to bring innovative ideas and solutions which will lead to stronger organization, when the next growth era comes. The traditional model of human resource management focuses on administrative functions: application processing, benefits, compensation benchmarking, dispute resolution, employee grievances, performance review, and rules compliance. But to change the system to make HR prove itself much better to stand strong for the storms like recession without stressing more on layoff for this some points need to be considered.*

- Exhaustion of productivity gains from investments in plant and equipment, which heighten the importance of high-quality workers as drivers of productivity growth.
- Expanding opportunities for outsourcing of HR functions (e.g., benefits administration) that free up corporate resources to engage the strategic dimensions of human resource management.
- Changing attitudes toward work by new generation individuals, whose recruitment and retention require an integrated approach to professional development and careful attention to the entire employee "life cycle".
- Proper Human Resource planning must be carried out keeping in mind that tough times can knock back again.

- These factors heighten demand for HR professionals possessing a strong strategic acumen, a global perspective, an embrace of workforce diversity as a competitive asset, and a capacity to identify and develop rising stars in the organisation. They highlight the need to align HR practices with labour force dynamics: e.g., forecasting future workforce requirements; assessing leadership pipeline trends; devising performance metrics that address both the "hard" and "soft" skills of employees. And they underscore the imperative of continuous and visible engagement in HR management by senior organisational leaders: Articulating the links between human capital development and corporate strategy; mentoring and coaching young employees with leadership potential; surmounting organisational silos to expand lateral opportunities and optimise deployment of the company's human assets.

STRATEGIC ROLE OF HR PROFESSIONALS DURING RECESSION

The recession is an opportunity for HR professionals to step and contribute strategically. In the classical strategy paradigm, we begin by looking at the macroeconomic environment. Then we look at the micro-environment - what affects us and our competitors. Next, we establish which strategic factors HR influences directly. Finally, we drop down to our tactics the recession is about the creative Human Resources Management. The HRM Function is asked to bring new ideas, to change the HRM Processes and to develop or change the procedures. And this effort has to be cheap or it has to cut the costs of the organization. The HR Management has to focus on unpopular innovations during the recession as the role of HR during the recession is to save money to the organization. The senior management expects all the support functions to bring ideas and solutions which will lead to stronger organization, when the next growth era comes.

The point has to be focused by HR management during recession are as follows:

- To optimize the manpower strength.
- To take strategic initiatives to increase the productivity and efficiency of the entire organization.
- To work on compensation & benefits which will keep employees motivated in times of turmoil.
- Redesign training and development programs so that human resource can sharp its axe.
- Ensure your organization's policies and handbooks are up to date. Remember that an annual review of your employee handbook for compliance by an experienced professional is highly recommended. They have to be able to read and understand the content. Be sure that you provide employees a handbook in a language they can read and understand.
- Layoffs are never easy. Ensure that organisation familiar with your legal responsibilities in a lay off to minimize your organization's risk. Be sure that you have properly defined the criteria you are using to determine who will be let go. Having Flexible schedule & Alternative Workweek Schedules can maximize production and cut-back on overhead costs for organizations. Be sure you follow all of the rules when deciding if an Alternative Workweek Schedule or Flexible Scheduling is right for your organization.
- Downsizing does require internal document maintenance for your organization. As jobs are modified and responsibilities are increased changes also must be made to your job descriptions. On the other hand the HR Management has to find some innovative solutions during the recession like.
- To identify the real key employees and to intact them in the organization.
- To identify the real top potentials and to strengthen their development program.

HR's has to play role in strategic people management proper HRM needs focused on transactional activities and HR operating efficiencies than on high level strategic people issues. However, the executives' concern about people is not translated into increasing importance for HR. In fact, the HR function, which executives believe is concerned with activities such as reward and benefits, performance evaluations and HR operating efficiencies is often seen as being unconnected with how a business will deal with key strategic HCM challenges such as talent management, workforce productivity and leadership development. If these functioning goes on proper track then only system can run better.

CONCLUSION

A recession does not only slow down the economy, but it also has the ability to decrease the drive of your employees. The hard facts which surrounds here is the more the number of layoff observed the more it lays its effect on employee morale which affect performance. Here HRM has to play a very critical role because it is very hard to keep employees productive when they are dealing with the emotions that will inevitably follow an economic downturn. In addition, when an organization is affected by a recession, production, or lack thereof, becomes an employee's concerns well. With this paper I tried to put some of the strategies of HRM which if implemented strategically so that whenever the disturbance happens in the system it will not put it will not create major damages if Strategic measure are adopted correctly then HR system can help employees to win the battle against all odds.

ACKNOWLEDGEMENT

I am very much thankful to the resources used for this paper. Words are inadequate to thank Dr. Haresh Trivedi, Associate Professor, for his kind support and guidance.

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ISBN: 978-93-5051-662-1

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A Comparative Study of the Challenges Faced by Hospitality Industry with the Changing Geographical Location

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ABSTRACT

The Indian hospitality industry has emerged as one of the key industries driving the growth of the services sector and, thereby, the Indian economy. The constant transformation has made the Indian hotel industry more functional and practical and has gained a level of acceptance world over. The standards of facilities and services offered have evolved over the last decade towards the extensive use of technology, environment friendly services, pricing, market segmentation, regional preferences, etc but this industry is cyclical in nature and highly susceptible to even macro-environmental changes.

This paper presents the comparative study of the varying challenges faced by the Hospitality Industry with the changing economies of various Cities. It also highlights impact of the various factors leading to the growth or success of this Industry that change with the changing geographical location.

Keywords: Hospitality Industry, Geographical Location, Challenges, Economy.

INTRODUCTION

A touch of tenderness, a helping hand, a welcoming visage... the Indian hospitality sector is certainly the most apt replication of the belief 'Atithi devo bhava'. Good quality products and services at affordable prices should be the USP of any successful venture **-** and hotels in the country boast of exactly this!

THE INDIAN HOTEL INDUSTRY

The constant transformation has made the Indian hotel industry more functional and practical and has gained a level of acceptance world over. The standards of facilities and services offered have evolved over the last decade towards the extensive use of technology, environment friendly services, pricing, market segmentation, regional preferences, etc. The Indian hotel industry has seen a significant growth in room inventory across categories from upscale luxury to limited services and, boutique and budget hotels. The occupancy and the room rates have seen continued gains both from the domestic and the international traveler in both the business and leisure segment.

Prior to the 1980s, the Indian hotel industry was a slow-growing industry, consisting primarily of relatively static, single-hotel companies. However, the Asiad, held in New Delhi in 1982, and the subsequent partial liberalization of the Indian economy generated tourism interest in India, with significant benefits accruing to the hotel and tourism sector, in terms of improved demand patterns. Growth in demand for hotels was particularly high during the early 1990s following the initiatives taken to liberalize the Indian economy in FY1991, as per the recommendations of the International Monetary Fund (IMF). The euphoria of the early 1990s prompted major chains, new entrants and international chains to chalk out ambitious capacity additions, especially in the metropolitan cities. However, most of these efforts were directed towards the business travelers and foreign clientele.

STRUCTURE OF THE INDUSTRY

Hotels in India are broadly classified into 7 categories (five star deluxe, five-star, four star, three star, two star, one-star and heritage hotels) by the Ministry of Tourism, Government of India, based on the general features and facilities offered. The ratings are reviewed every five years.

Premium and Luxury Segment

This segment comprises the high-end 5-star deluxe and 5-star hotels, which mainly cater to the business and upmarket foreign leisure travelers and offer a high quality and range of services.

Mid-Market Segment

This segment comprises 3 and 4 star hotels, which cater to the average foreign and domestic leisure traveler. This segment also caters to the middle level business travelers since it offers most of the essential services of luxury hotels without the high costs since the tax component of this segment is lower compared with the premium segment.

Budget Segment

These comprise 1 and 2 star hotels referred to as 'Budget Hotels'. These categories do not offer as many facilities as the other segments but provide inexpensive accommodation to the highly price-conscious segment of the domestic and foreign leisure travelers.

Heritage Hotels

In the past four decades, certain architecturally distinctive properties such as palaces and forts, built prior to 1950, have been converted into hotels. The Ministry of Tourism has classified these hotels as heritage hotels.

FACTORS VARYING IN DIFFERENT LOCATIONS

Uneven Distribution of Population

Demographic changes have potential effects on the hospitality industry workforce. The unevenly distributed population generates labour shortage in particular geographic regions and economic sectors, and the "aging" phenomenon of workforce in the developed cities, are two major demographic factors affecting the hospitality industry. Indeed, the first factor, the uneven distribution of the population, has been pointed out as an increasing social problem for both developed and developing cities.

An increasing presence of minorities and women participating of the workforce and a decline of the youth population in rural cities represent a reality affecting the hospitality industry. As a result, staffing vacancies in the next decades will become a greater challenge to the hospitality industry in this part of the country.

Travel Tales

While the high influx of foreign tourists has ensured huge footfalls for the sector over the years, internal tourism too has, off late, begun offering great potential. With travelers taking new interests in the country, players in the hospitality sector have had to offer the best of services, at affordable prices. Also, with the USD 23 billion software services sector pushing the Indian economy skywards, more and more IT professionals are flocking to Indian metro cities, thus signaling a boom time for the hotel and hospitality segment. Several other factors such as Commonwealth Games in Delhi are fueling the need further.

Labor Cost Issues

In 2005, labor expenses remained the largest single expense item for hospitality managers, accounting for 44.6 percent of total operating costs. Consequently, any trend or issue that could potentially impact labor costs must be taken seriously by hospitality owners and managers alike. "Due to the magnitude of the expense, labor costs and issues have always consumed a substantial portion of the time and efforts of hospitality managers. Now, with news of union contact negotiations, changes to immigration laws, and proposed legislation to increase the minimum wage, hospitality managers are on edge.

The cost of labor is the biggest expense in all categories of hotels. Even with the advent of select-service properties, hospitality developers cannot avoid the human component of hospitality operations. While managing labor expenses is important, hospitality managers are also aware that employees are an integral part of the lodging experience. The interaction between hospitality guests and employees has a dramatic impact on the customer experience and the success of the business operation. Therefore, a fine balance must be drawn between cost controls and guest satisfaction.

Site and Location

Location is a critical consideration because if affects hotels ability to draw customers. It is important that hotel location be visible, accessible, convenient and attractive to market. Surrounding land uses are important for all types of lodging operations. Aesthetics of the area, noise, safety and other factors should be considered.

This can be considered the most critical factor in determining the success of a hotel property. In addition to identifying a city, the site location within the city also assumes significance and issues like distance from the Central Business District (for metro hotels) and connectivity (access to roads, proximity to airports) assume importance.

Financial Flexibility

Development of hotels is a highly capital intensive activity and new hotel properties, typically, have a high break-even point. Therefore, financial flexibility is essential, especially during early years of operations.

Migration of the Workforce

The increasing migration of the workforce from one geographical location to another is affecting hospitality industry on a scale previously unknown. The migration to and from the different geographical location is caused by ‘push and pull’ factors. Push factors include poor image and conditions, long and unsociable hours that cause, in turn, a continuous “brain drain”. Among the pull factors are mentioned flexible hours and career progression, particularly for the increasing labour market of women and minorities.

The geographic migration of workforce also responds to external factors including personal motivations and social conditions. Some individuals are pushed by personal motivations, others move to new destinations seeking better-paying jobs and searching for better lives.

It should also be mentioned that education and training are often the keys used by skilled and educated employees to move to developed cities. Ironically, these skilled and educated immigrants often remain unemployed in developing countries despite, or because of, their high level of education.

Multicultural Issues

The newest trends and topics surrounding hospitality research and development is the management of multicultural talent and the political landscape affecting the hospitality industry. Franchise is becoming the biggest industry in the world, the success of franchise lie in the understanding of ownership, internal and external customer- and workforce-related - and top legislative matters, insights of marketing and promoting.

With the development of globalization, multicultural issues are facing and disturbing the industry operators. Bringing the far corners of the world together is part and parcel of what the hospitality sector does.

Blending amenities to cater for the needs of the world's different cultures is central to success for large, international hospitality chains. Cultural issues have never before been such a crucial determinant of how a large hospitality should operate. In some Asian cultures, for example, eye contact is not sought, as it can make guests feel uncomfortable, while in Western tradition it is equated with openness and honesty. This could be important in defining how staff addresses themselves to certain Asian guests.

Increased Competition

Hotels everywhere indicate that their community is overbuilt; there are too many available hospitality rooms relative to the guests desiring to rent them. The resulting competition, which often involves price cutting in efforts to provide greater value to guests, educes still further the profits generated. A steep fall in occupancy ratio in the wake of the global slowdown and tight competition among hospitality operators in a shrinking market have brought down hospitality room rents drastically across the country. The competition in India has resulted in low occupancies and as a result, the average room rate has taken a beating of almost 30 percent in all major leisure markets. Rooms are now sold not only for less but also bundled with packages, like breakfast, airport transfers or a day's sightseeing. Competition calls for innovation in hospitality industry.

Market Segmentation and Overlapping Brands

Market segmentation is increasing as lodging chains focus on a specific niche of travelers. Additionally, brands overlap. Some industry observers are concerned that franchisers may expand their number of brands to the point that investors who purchase from the same franchiser will be in direct competition with themselves! Also, as the number of brands increases, the ability of consumers to differentiate between them decreases.

Technological Issues

The challenges of keeping up with the fast pace of technology is difficult and expensive.

I. Interactive Reservation Systems

Guests can now use the Internet's interactive reservation systems, and hospitality companies are sometimes criticized for the (alleged) large number of keyboard clicks required to make a reservation. The number of reservations made via the Internet continues to increase. Surveys in India show that currently 10% of all reservations are made through the Internet, and this percentage is increasing every year. With such increasing percentage of reservations done through the Internet, hospitality cannot afford not being connected. If the potential guest cannot book online, a reservation will be made at the competitor's web site.

II. Guest-room Innovations

Multiple telephone lines, interactive opportunities for ordering room service, and guest-room check-out are examples of amenities that guests increasingly desire, but that are very expensive to install and implement.

III. Data Mining

This technology allows marketing and sales personnel to find new ways to use guest-related data. Data mining is using technology to analyze guest and other related data to make better marketing decisions.

IV. Yield Management

This computerized process allows managers to match guest demand with room rates (high demand means higher rates because of lessened discounts; low demand result in higher discounts.) yield management demands forecasting systems designed to maximize revenue by holding rates high during times of high guest-room demand and by decreasing room rates during times of lower guest-room demand.

Yield management is critical to maximizing a hospitality's profitability. The concept are applied to every revenue department and across department. The yield manager's job is to maximize the revenue per available room by selling rooms to the right customers, at the right price, at the right time.

SUGGESTION

1. Investing in Technology

Hospitality companies must invest in technology. The battle to drive bookings through proprietary websites will continue, but all major operators will also develop applications and websites for mobile devices to meet consumer demands.

2. Strategy to Retain Critical Employees

An average hotelier spends 33 percent of revenues on labor costs, but employee turnover in the industry is as high as 31 percent. Operators need robust strategic plans to retain their critical employees and manage turnover.

3. Implementing Sustainable Practices

Rising populations and increasingly scarce resources will provide a challenging business environment in which sustainability will need to be embedded within all facets of the hospitality industry.

4. Focus on Emerging "Travel Boomers"

The key to attracting boomers is appealing to their 'forever young' attitude and desire for experiential travel. The middle class of India will create changes as their travel patterns evolve from domestic to regional to international. India alone is forecasted to have 50 million outbound tourists by 2020.

5. Strategies to Overcome Labour Shortage

Labour shortage problem can be overcome, by relaxing the immigration policies in order to allow skilled and educated immigrants to enter in key sectors of the economy. Secondly, developing an effective Equal Employment Opportunity (EEO) legislation that takes advantage of large segments of the population with important skills and abilities.

6. Business Development

A recent Google™ survey suggests that a third of travelers have made accommodation decisions based on reviews found online on sites such as Trip Advisor, Yapta, Travel Muse and Concierge. This is just one good reason hotel operators should step up their brand presence on the internet in 2009.

CONCLUSION

The hotel industry in India having a tremendous opportunity in the future because of increasing trends in the tourism industry and government promoting the "Incredible India" campaign and other tourism promotion measures. The hotel industry in India is mix of many brand internationally established hotels having the scope to attract shares in the brand hotels which will help to expand the industry and the innovations in the industry is helping the hotels to retain the customers with them. Though the industry is having opportunities in future it is suffering with the cost of land which is costing 50%of the total cost and the taxes are main drawbacks for the industry. Industry is opening gates for the foreign investment which is a good sign for the industry and industry is working toward the fulfillment of the demand and supply gap.

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ISBN: 978-93-5051-662-1

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Innovative HRM Strategies in Global Recession

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ABSTRACT

Over the last decade, recession has been a growing international trend in corporate sector. Human resource management strategies and innovations provide a wide selection of employees, customers, suppliers etc. in all ranges. The transformation of human resource management strategies and innovations are outlined in this paper. This paper includes the progress of HRM towards its various functions like recruitment, selection of employee, training and development, compensation and benefits, growth of human, communication, HR front office and competitive HRM strategies to establish and strengthen its presence in the whole world. This paper also highlights HRM strategies to counter intensified competition and external conditions like global economic recession, the resultant credit crunch and its impact on employee performance. Further aim of this research is to find out measurement of performance, challenging industrial and economic conditions, what are the growth options to ensure future growth sustenance and profitability.

Keywords: Recession, Compensation strategy, Innovations, contingency, Payroll, Recruitment, global meltdown, cost-cutting, Multi-skilling.

RECESSION

Many professionals and experts around the world believe that a true recession can only be confirmed if GDP (Gross Domestic Product) growth is negative for a period of two or more consecutive quarters. The agency that is officially in charge of declaring a recession in the United States is known as the National Bureau of Economic Research, or NBER. The NBER defines a recession as a “significant decline in economic activity lasting more than a few months.”

HRM Innovations in Recession

“The recession is about the creative Human Resources Management. The HRM Function is asked to bring new ideas, to change the HRM Processes and to develop or change the procedures and this effort has to be cheap or it has to cut the costs of the organization.” The HRM Innovation is easy in times of the business growth, but the recession is not good for big innovative HRM Initiatives. On the other hand, the top management understands the effort to innovate the HRM Processes better. The top management is in the search for the potential cost savings and they count every single penny brought by the line management. The HRM Costs are usually a very significant cost to the organization and the HRM Function has to be proactive. The HRM Function has to focus on unpopular innovations during the recession as the role of Human Resources during the recession is to save money to the organization. The top management expects all the support functions to bring innovative solutions, which will have to make the organization stronger, when the next growth era comes.

The HRM Innovation during the recession has to focus on the following topics:

1. To optimize the manpower strength
2. Reduce the number of employees in the organization
3. To take strategic initiatives to increase the productivity and efficiency of the entire organization.
4. To work on compensation benefits
5. Cancellation of several benefit schemes
6. Redesign training and development programs
7. To identify the real key employees and to intact them in the organization
8. To identify the real top potentials and to strengthen their development program

On the other hand the HRM Function has to find innovative solutions for the following topics:

1. Identifying the real key employees and to keep them in the organization
2. Identifying the real top potentials and to strengthen their development program

Key employee helps in minimizing additional costs and it is a really hard task to accomplish. The HRM Function has to have priorities in mind and the strategic impact of the HRM Innovations in the recession time. The role of the HRM Function is not to cut the costs for the time being, but to make the organization stronger and ready for the future growth.

Impact of Compensation Strategy in Recession

The compensation strategy is a general document about the vision, mission and strategy of compensation and benefits of the organization. Generally, the recession has no impact on the compensation strategy, but the organization has to make some adjustments. The compensation strategy is always connected with the business strategy and the stage of the organizational development. The fast growing organization needs a different compensation strategy from the mature organization. The compensation strategy defines the general position of the organization on the pay market and the compensation strategy defines the proportion of the overall company costs allocated to the human capital of the organization.

The recession makes a huge pressure on the overall costs of the organization and the compensation strategy can easily change the position of the organization on the pay market. The HRM Function has to monitor closely the development on the market and it has to watch for the signals in the change of the overall business strategy as the compensation strategy has to be adjusted as soon as possible.

The compensation strategy is quite costly document for many organizations and the HRM function has to react proactively too many external changes. It cannot be fixed in any organization and also change as per the need of organization.

How to Interact with your Employee during Recession

Here is how to keep your employees with you and away from your competitors during tough economic times.

- Differentiate Between Your Good and Average Employees
- Redirect Your Employees to Other Departments (Job Rotation)
- Listen to Your Employees
- Keep Them Motivated and Busy (Communicate-Communicate and Communicate)
- Show them the long term vision

The above steps will enable the employer to hold its team together during a recession, and will even make bond between all of you stronger. Employees should be motivated enough to stick to the employer during tough times and put in the extra effort required for the organization growth.

Role of Human Resource in Recession

The most recent survey, which was conducted among 150 employers in early February 2010, found that other popular cost-cutting measures included:

- Downgrading/canceling holiday party (38 percent)
- Increasing benefits communication (35 percent)
- Eliminating/reducing seasonal workers (25 percent)
- Organization-wide restructuring (23 percent)
- Raising employee contribution to healthcare premiums (22 percent)
- Increasing pay communication (16 percent)
- Restructuring HR function (17 percent)
- Implementing a salary freeze (18 percent)
- Having a mandatory holiday shutdown (10 percent)
- Increasing other employee programs (15 percent)

The percentage of employers that have already implemented salary freezes jumped from 4 percent in December to 18 percent in February. Sixty-one percent of employers reported that they reduced their planned merit increase for next year from 3.8 percent to 2.5 percent.

Strategic Role of Human Resource in Recession

The recession is an opportunity for HR professionals to step and contribute strategically. In the classical strategy paradigm, we begin by looking at the macroeconomic environment. Then we look at the micro-environment - what affects us and our competitors. Next, we establish which strategic factors HR influences directly.

The point has to be focused by HR management during recession are as follows:

- To optimize the manpower strength.
- To take strategic initiatives to increase the productivity and efficiency of the entire organization.
- To work on compensation benefits.
- Redesign training and development programs.
- Ensure your organization’s policies and handbooks are up to date. Remember that an annual review of your employee handbook for compliance by an experienced professional is highly recommended. Also, each employee having a copy of the employee handbook is not enough. They have to be able to read and understand the content. Be sure that you provide employees a handbook in a language they can read and understand.
- Layoffs are never easy. Ensure you are familiar with your legal responsibilities in a lay off to minimize your organization's risk. Be sure that you have properly defined the criteria you are using to determine who will be let go.
- Alternative Workweek Schedules and Flexible Scheduling can maximize production and cutback on overhead costs for organizations. Be sure you follow all of the DLSE rules when deciding if an alternative Workweek Schedule or Flexible Scheduling is right for your organization.
- Cutting Pay may be an option to consider saving on today’s costs. Is this really an option for your organization? How are your pay scales as related to the market? Are you willing to risk losing key employees whose talents may be needed by other organizations, because you chose to reduce their pay at this time? Remember, you should not cut pay without a recovering strategy of how you will re-adjust when the economy has turned.

- Downsizing does require internal document maintenance for your organization. As jobs are modified and responsibilities are increased changes also must be made to your job descriptions.
- On the other hand the HR Management has to find some innovative solutions during the recession like,
- To identify the real key employees and to intact them in the organization.
- To identify the real top potentials and to strengthen their development programme.

Recession and Employees' Career Options

The employees are the most important assets of the organization. In times of the recession, the employees have to be secure about their future and the organization should announce a clear plan to them. The recession brings a panic to the organization. The rumors about the recession and the layoffs spread quickly around the organization and the HRM Function has to monitor the Emotions in the employee population. The rumors are the most important danger for the successful survival of the recession. When the employees start to speak about the recession, the key employees and top talents can leave the organization within several weeks, as they feel no future in the organization. The role of the HRM Function in Recession for the employees is being their real advocate. The HRM Function should prepare the proper communication and it should manage to get the buy in from the top management. The employees feel the danger from the recession, the top management has to inform all the employees honestly about the outlook for the organization and it has to provide them with the vision to follow.

The organization needs to save the costs and it needs to identify and potential additional source for the cost saving and starting a new growth era. The HRM Function has to prepare a new HRM.

Vision and a new HR Strategy for the coming period as the cost cutting is not the only way to build a stronger organization fighting with the recession.

The most affected HR Processes are the following:

1. Recruitment: The first HR Process with the change in the recession. The job vacancies are cancelled and the HRM Function should come with a new recruitment strategy. The organization can hire a new set of skills and competencies to strengthen the position of the organization on the market.
2. Training: The training is cancelled as it is a quick cost cut. The training can be later focused on more specialized training session and more internal training courses can be introduced.
3. Compensation and Benefits: The department can be asked to bring a new compensation scheme, which will save the costs and motivate employees to be more proactive.
4. HR Front Office: The HR Front Office have to be present at clients all the time as they will need a strong guidance and facilitation during the recession.

The HR Processes are heavily affected by the recession, but the HRM Function has to take this as the opportunity to change and to bring new ideas on the scene. The recession is the best time to design a completely new approach of the organization to its human capital.

The HRM Function should be always very careful about the costs added to the organization as cost cutting always hurt. The HRM Function has always to predict, the recession will come and the nice initiatives can be then very painful initiatives. The HRM Function has to prepare the HRM.

Recession Quick Wins

The HRM Recession Quick Wins should include the following actions:

1. Stop and prioritize the recruitment process. The vacancies should be cancelled and all the vacancies should be strategically re-shifted. The organization can need a completely different set of jobs to survive the recession. Why the continuing recruitment process should make the situation even worse?

2. The FTEs in the organization has to be evaluated. The number of FTEs can be fine, but the structure has to be reviewed. There is no company in the world, which cannot decrease the number of FTEs. The HRM Function has to offer the methodology for the FTEs review and the HRM Function has to act as the facilitator in the process of the FTEs review.

3. The bonus schemes have to be reviewed. The bonus scheme can support the organization in the time of the strong growth, but it can de-motivate employees in time of the recession. The HRM Function has to prepare a good analysis of the bonus scheme performance and its impact on the motivation of employees. The HRM Function can propose additional changes to the bonus scheme to provide the employees with some kind of the stability.

4. The talents have to move around the organization to play their strategic role in the change of the organization during the recession. The organization needs to awake its creativity and the shift of the talents can help a lot.

The HRM Recession Quick Wins are not hard, but they need a lot of courage from the HRM Function. The HRM Function has to reflect itself and it has to be proud to say, it made some mistakes in the past. The recession is always about the restart and the HRM Function needs to restart its processes quickly at the beginning of the recession.

HRM Communication in Recession

The HRM Function is always responsible for the mass communication to employees in the recession. The HRM Function should be responsible for the consistency, transparency and fairness of the crisis communication to employees. The recession is usually not about the good news, but the HRM Function has to be the employee advocate and the messages should provide the employees with the clear outlook of the future. The crisis and recession communication have to be targeted, as not all the employees should receive the same amount of the information. The Sales employees should have completely different details from the Operations guys. The HRM Communication in the Recession is about defined and agreed target groups. The organization cannot publish the details about its business position to all the employees, but some groups of employees have to know more to feel comfortable and more secure. The HRM Communication is one of the strongest tools for the retention of key groups of employees. The talents and key employees have to receive more information from the organization to keep their own security and their value for the organization. The organization needs to raise the level of the motivation and the honest communication is one of the best tools for motivation. But the HRM Function has to act as the consultant to make sure, the employees are not de-motivated and frustrated by the amount of messages and the details provided. The HRM Function has to provide the advice on the communication channels used as not all the messages should be sent via email. The HRM Communication in Recession is about a clear description of the organization´s position on the market, the economic outlook for the next period and about the strategic products and services, which will be the leading the growth in the era after the recession.

Recession and Recruitment

Recruitment is one of the most affected HR Processes by the global recession on the market. The companies do not offer vacancies, the number of job applicants grows rapidly and the organization has to manage the recruitment smartly. The organization has to change the focus of the recruitment and the recession is a good moment to focus on the recruitment process development and redesign.

Recommendations while your employer facing negative challenges during recession:

1. Top management should know the contingency plan.
2. Do the brainstorming session with your top management and contribute in their strategic planning.
3. A complete or partial job freeze, however, communicate to the workforce that the company many continue to recruit key individuals even in difficult times.
4. Review the employee performance evaluations to determine the key people that company cannot afford to lose.
5. Flow of Communicate should be from top to down that will help in making conducive atmosphere within the organization.
6. Make prepare yourself for individual and group concerns therefore there should be a proper counseling session.
7. To maintain a calm atmosphere.
8. Review all HR policies, processes and procedures to ensure that they are purposeful and contribute directly to the success of the company.
9. Suppose the company has to lay-off staffs ensure that there are no other opportunities for them in other functions or divisions of the organization.
10. Advise managers to deal the process of managing change.

HRM Role after Recession

The recession is healthy, from time to time. The recession helps to stop the businesses, which are not bringing value added and the human capital is transferred to more vital businesses at lower costs. In the companies, which survive the recession, the HRM Role is very important. In time of the recession, the HRM Role is to make cost cuts and the HRM Function has to provide the list of the policies and the procedures to be cancelled or discontinued.

1. The HRM Function has to be able to identify the top potential in the organization quickly as the company needs to make the cuts in the human capital of the organization.
2. The HRM Function needs to provide the tools to managers to inform their key employees about the security, the company wants to offer to key employees.
3. The HRM Function is not a department to make employees happy, the role of HRM Function is also about the cuts in the costs of the organization.
4. HRM Function's role is about minimizing the damages to the organization.
5. The HRM Management has to define the HRM Vision for the Recession. The employees in Human Resources have to understand the goals for the difficult period of the recession.

"The HRM Function can serve as the navigator and facilitator for employees, but the HRM Vision for the recession has to be defined and clearly communicated and explained to HRM employees.

The HRM Management has to communicate the full story as the HRM Employees have usually access to confidential information and they can build a good picture of the organization's health very quickly."

HR Initiatives in Recession

The HR Function has to conduct several HR Recession Initiatives as soon as the recession is recognized in the organization. The organization can grow rapidly, when the recession ruins companies around your organization. But, when the organization feels the pain from the recession, the HRM Function has to start several HR Recession Initiatives. The HR Recession Initiatives have to be focused on the analysis of the current situation and the unlocking the potential for the future growth. The HR Recession Initiatives are not just about the cost cutting, the recession initiatives have to be focused in more areas:

- Cost Cutting
- Key Groups of Employees
- Process Efficiency
- Honest Information for Employees
- Management Consulting

The HR Recession Initiatives have to be balanced well. The cost cutting is about the immediate activities to decrease the personnel expenses of the organization, but the HR Recession Initiatives have to be focused on the future as well. The HRM Function has to focus on the honest communication in the recession. The HRM Function has to inform the employees fairly about the bonuses, salaries and number of employees in the organization in advance as the employees can prepare themselves. The HRM Function has to have a good balance in the HR Recession Initiatives. The employees and managers have to feel the fairness and transparency in the initiatives as they can build the trust to the HRM Function.

HRM Priorities in Recession

The HRM Priorities in the Recession can change quickly or they need to be adjusted at least. The organization has no resources to add to the new initiatives and the HRM Function can be asked to produce cost savings on current programs. The HRM Management has to make a quick scan of current procedures and policies to be prepared for the cancellation or change, when asked to make an urgent cost cut. The recession is about cost cuts and designing efficient, cheap HR Processes. The HR Priorities have to be assessed using a simple tool for selecting the processes and policies to be discontinued. The best tool is to use the simple matrix, which divides the processes and procedures according their costs and impact on the organization. The HRM Function has to adjust the HRM Priorities in the recession very sensitive way as the employees feel some security and consistency and that they can trust the organization and its success in the war with the recession. The HRM Function has to keep the role of the employee advocate and this should be reflected in the decision matrix as well. The recession is not a chance to change and cancel everything; the corporate culture should not be touched by the change of the HRM Priorities during the recession.

Findings

But the key findings can be summarized as follows:

(1) HR possesses “An inadequate understanding of the relationship between workforce reduction and business goals”.

(2) Quantitative performance measurement is seen as a key priority – with over 90% of organizations either having or planning implementation of such systems.

(3) Boosting productivity without increasing employee costs is another major priority – with a focus on training, more stringent performance appraisal and process innovation. One could conclude that the emphasis is upon cost reduction and increasing productivity. Understandable in these interesting times, but the question must be: “Are there other elephants in the room?

RECOMMENDATIONS & SUGGESTIONS

I would suggest that there is the psychological trauma induced by a sudden and unexpected recession. My research, conducted with colleagues, indicates that getting to grips with an unseen sea of psychological trauma should be top of the list – from the perspectives of both business efficiency and staff well-being. We are, after all, moving towards a world where there is more to strategy making than cost reduction. And getting to that world will take time, new externally based exploratory skills – and of course motivated.

(1) In my suggestion, in recession time HRM is the challenging job .Recession means not reduce the number of employees from the organizations & not cancellation of several benefits schemes.

(2) In my suggestion not reduce the number of employees but giving them non-monitory incentives in motivation form. Because monitory incentives not possible in recession time.

(3) After getting the non-monitory incentives, existing employees can increase the productivity of organization rather than new employee's .Because in my suggestions new employees take sometime to understand the organization /settlement with the organization.

CONCLUSION

With the rapidly changing technological, socio-economic and politico legal environment & the trend towards globalization of business & industry, effective management of human resources has become a very challenging job. There is on denying the fact that human element is at the centre stage in all economic activities. Thus, management of HR. encompasses not only employment & training etc. but also make HRM innovation & strategies which are prerequisites to attainment of higher quality & productivity.

The present report on HRM innovation & strategies" is a modest attempt to present a comprehensive treatment of concepts & measures of HRM innovation & strategies .HRM is the challenging task in recession time. Recession is not the time of Boom; in recession time organizations have the opportunity to re-innovate the organization in the form of such as

(1) Recruiting & selecting the highly qualified persons /staffs.

(2) Efficient training provide to the employees.

(3) To establish calm atmosphere. (The mean of calm atmosphere is to develop such types of environment that every employee performs their duties & responsibilities with honesty.

IMPORTANT CHANGES OF HRM AFTER RECESSION

Human Resource professionals are being pulled in two seemingly incompatible directions as they manage the immediate effects of the downturn and prepare the organization for better times. This requires an ability to deliver practical, risk-free, short-term cost-cutting plans and then switch effortlessly to long-term strategies for growth and development.

There are five areas where HR professionals need to focus to get ready for recovery:

First, embrace new ideas. Organizations need to rethink how they pay senior executives how they reward good performance when what counts as good performance has changed dramatically. They need to think about how to attract leaders who have the qualities for the new environment, leaders who may look very different from the current senior team. Second, ensure good governance: Organizations are coming under increasing scrutiny from not only shareholders, but the public, politicians and the press. Fairness and transparency and value for shareholder or taxpayer money are paramount. Pay and performance need to reflect that agenda. HR needs to be a bold, critical friend to the board, providing guidance and minimizing reputation risk. Third, do unpopular things well. Cutting costs will always be the obvious response to hard times. Redundancies will be unavoidable for many, but there are potential savings to be made in managing people costs more efficiently. This would include better absence management; more rigorous expenses systems; use of contractors; pay; incentives; employee benefits; secondments; and flexible and part-time working. HR needs to be facilitating a more creative approach and offering practical solutions. It also needs to challenge the old recipes for costcutting, such as cutting training and skilled labor, showing how they undermine future market competitiveness.

FOURTH, PLAN FOR THE FUTURE

The landscape at the other side of this recession will look very different and the workforce will need to look different. How many staff an organization needs, what skills they must have, what they do and where they do it may all have to change. Despite high levels of unemployment, those skills may not be readily available. So HR needs to develop a future-focused workforce strategy and a plan that shows how to build, buy or borrow resources.

Fifth, energies the firm: Even if recovery is on its way, the future climate is not going to be the benign one of pre-crisis days. Companies will need to be creative, innovative and agile if they are to prosper in this new world. Recessions are not good preparation for that approach as they end to knock the breath out of organizations, sapping people's confidence and motivation. HR needs to tackle the emotional health of the organization and look for ways to encourage staff engagement and idea-generation.

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ISBN: 978-93-5051-662-1

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Industrial Growth: Comparative Study of India and China

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ABSTRACT

India has made considerable economic progress since its Independence. Most noticeable are the expansion and diversification of production both in industry and agriculture. New technologies were introduced in many industries. Liberalization led to elimination of industrial licensing except for certain sectors. Cheap labor cost and inflow of FDI has led to the growth of industrial sector at a faster rate. India is probably one of the few countries in the world which used its import policy for the healthy development of local industries. Energy-Transport- Communications facilities are extremely essential for smooth and accelerated industrial growth. The Government made huge investments in providing such infrastructure facilities to industries. China has been the world’s fastest growing major economy with consistent growth rates of about 10 % for the last 30 years. Research by IHS Global Insight states that in 2010 China contributed to 19.8% of world's manufacturing output and became the largest manufacturer in the world that year, after the US had held that position for about 110 years. This paper focuses on the growth of industrial sector in India and China and forecasting of industrial growth in both the countries will be done with the help of Holt’s model. The objective of the paper is to forecast the growth in industrial production in India and China and the proportion of manufacturing in the industrial sector will also be discussed with the help of econometric modeling. Comparative behavior of manufacturing sector in the growth of industrial sector will also be studied.

Keywords: Industry, growth, India, China, Holt’s model, comparative study, manufacturing.

INTRODUCTION

The comparison of the periods of rapid economic growth in China since 1978 and India since 1992 markedly show different patterns of development and structural change. However, both countries experienced some of the advantages of "relative economic backwardness" and some aspects of the "fordist model of growth". (Poon, Terence; Batson, Andrew, 2010). The Chinese case shows that the crucial elements of the fordist model of growth - the economies of scale or of network, the rise of productivity, the increase in wages and in total wage bill, the increase in consumption, in total profits, in investment and in GDP - can give a great boost to industrial and economic growth and then to exports in certain phases of the economic history of a country, although contributing to determine also some socially undesirable consequences, such as rapidly growing economic and social imbalances and income inequalities. (Vittorio, 2009). While in China this model of growth began in the 1980s and was essentially based upon a large and gradually increasing number of industrial sectors, in India it was delayed by over a decade. China went from being a closed, centrally planned communist economy to a largely market-oriented open economy. India, having first experimented with government financing of much of its heavy industrial investments, has since 1991 slowly opened up to private and foreign investment, as well as to international trade. In 1950 the two economies were at roughly the same level of economic development - similar GDP, per capita income, and agricultural productivity. (Nagraj, 2005). China had an anticipated and deeper structural change, spurred mainly by economic reforms and the growth of the internal market in the 1980s and since the mid-1990s by a very rapid penetration of its industrial products in the world market. (Valli, Vittorio; 2009). A number of scholars have in recent years demonstrated that, though growth in manufacturing in the 1990s was somewhat lower than in the 1980s, the shift in growth trend since 1991-92 was not statistically significant. Since 1980s nothing dramatic has changed in the aggregate outcome in the manufacturing sector. History has shown that the only way to industrialize an economy is to increase the capital-labor ratio so that poor farmers can be equipped with industrial machines and equipment to produce goods with a higher value than that of farm goods. To install that piece of machinery, you need to save and invest. China and India had not been able to exploit the advantages of relative economic backwardness in any meaningful way. China had a partial, but impressive catching up towards the US, rising from 4.1% of the US per capita GDP in 1978 to 19.1% in 2008, while India passed from 5.3% in 1978 to 9.6% in 2008, accelerating its economic growth mainly since 1992. In 1978 China was a predominantly agrarian economy, with 70.5% of the labour force and 28.2% of GDP in agriculture, forestry and fishing. In 2007 the situation had completely changed as China experienced a rapid and widespread industrialization and tertiarisation process. In 2007 the primary sector shares in employment and value added went down respectively to 40.8% and 11.3%, while the secondary sector (industry and construction) increased to 26.8% and 48.6% and the tertiary sector went up to 32.4% and 40.1%. (Valli, Vittorio, 2009). Since 1978 in India the industrialization process was less rapid and widespread than in China, but the services sector, which in 1978 was already relatively larger than in China, increased relatively faster than in China in terms of value added. In India as well as in China the labour productivity of industry (including construction) and of services was much higher than the labour productivity of agriculture. Therefore the transfer of many employees from agriculture to industry and services has contributed to the pace of economic growth. In 1980 the main industrial sectors were the traditional ones: textiles, clothes, food and beverage, bicycles, etc., with a limited presence of some scale intensive sectors such as steel, chemicals and fertilizers. Electricity and telecommunication services were uncommon and unreliable and residential constructions were curtailed, with very small and crowded apartments in the cities. In 1995 and much more by 2007 the situation had radically changed (Maddison, 2007). While in 1978 textiles in China had been by far the most important sector in terms of the percentage of total value added, since the mid-1990s the electrical and nonelectrical machines and chemicals surpassed textiles. Also the growth in production quantities of the goods produced by modern industrial products such as PCs and mobile phones was much faster than for textiles and most other traditional sectors. Not only has China a much larger industrial sector than India, even discounting the fact that its rapid industrialization process began some 12-15 years earlier than in India, but also its industrial activities are much less fragmented. India has an extraordinarily large number of micro-enterprises and a very vast "informal economy", much larger than China's (Chenery, 1986). Moreover, India has a very large chain of production intermediaries and of wholesale and retail traders. These long production and distributive chains may sustain employment and reduce labour costs, but decrease productivity and tend to greatly increase the spread between prices earned by producers and consumer prices.

For China, recent aggregate studies include Chow and Li (2002), IMF (2003), Holz (2006a), as well as our own previous estimates in OECD (2005). Dougherty (2004) summarizes a number of earlier such studies on China. For India, recent aggregate studies include Pallikara (2004), Rodrik and Subramanian (2004), Singh and Berry (2004), Sivasubramonian (2004), Virmani (2004), Ghosh and Narayana (2005) and Bosworth and Collins (2007). A large number of productivity studies have been carried out for India's manufacturing sector in particular, many of which are described in Kaur (2006).

INDUSTRIAL SECTOR IN INDIA

The industrial sector is one of the important sectors of the Indian economy both in terms of its spread over the economy and its contribution to the generation of income, employment and foreign exchange earnings. The compilation of industrial statistics thus assumes a crucial importance for its pivotal role in the Indian economy, both for research and policy-making.

The Central Statistical Organisation (CSO) is responsible for compilation and publication of the Index of Industrial Production. This is a monthly index and is intended to measure changes over time in the volume of industrial production. The scope of the index in India is confined to mining, manufacturing and electricity sectors. (esa/stat/ac.105/7).

In India several industrial sectors such as machinery, chemicals, steel, pharmaceutics, three-wheel vehicles, motorcycles and, more recently, microelectronics hardware and automobiles, had a relevant and accelerated growth, although often inferior and delayed of some years with respect to the one registered in China.

The economic reforms undertaken since 1991 have influenced both India's industrial policy and external economic relations. The variety of industrial policy reforms – further delicensing, removal of MRTP constraints, tax concessions, opening of yet newer areas hitherto reserved for the public sector, and taming labor – are best viewed as continuation of reforms well underway during the 1980s. The economic expansion since 1990s contributed to a steady and impressive growth in India's GNP. India is probably one of the few countries in the world which used its import policy for the healthy development of local industries. (Report of national commission of labor). To provide financial infrastructure for the industries, the government of India provide many development banks. Foreign Exchange Regulation Act (FERA) ensures that much of the control in companies with foreign collaboration remained in the hands of Indians. Government policies also gave encouragement to small-scale industries by providing a number of support measures for growth like credit facilities, factory space in industrial space, special financial assistance at concessional rate, assistance for export marketing etc. A number of scholars in the recent years have demonstrated that, though growth in manufacturing in the 1990s was somewhat lower than in the 1980s, the shift in growth trend since 1991-92 was not statistically significant. (Nagaraj, 2003).

Over the decade, the government took an attitude shift in favor of the private sector. India's economic growth averaged 5.7% a year in the 1980s versus 3.5% in the prior three decades. Since 1991, India has initiated major liberalization measures, adopting the open-economy model. India has achieved average growth of 6.6% a year since 1991, and in the past five years, growth has averaged 8.5 %. Over the period 1980-2007, total employment grew by 81.7%. Although in 2007 the number and the share of employed persons in the primary sector were still higher with respect to the other two sectors, the situation dramatically changed if compared to 1980. In the first period, 1980-1992, the number of workers increased in all sectors.

Key industrial reforms implemented in India are:

Removal of licensing regime: The government abolished licensing requirements for setting up all but 18 industries in 1991. In 1998-99, further de-licensing took place and now licenses are required only in industries such as alcohol, tobacco products and those pertaining to defense equipment.

Removal of undue control of trade and business: In 1991, the government abolished the Monopolies and Restrictive Trade Practices Act, which constrained corporate acquisitions and over-regulated business practices.

Deregulation of product prices: The prices of various goods, such as steel, cement, paper and pulp, have been deregulated since the reform process began. Most manufactured product prices are determined by market forces with the exception of select few products such as oil and coal. Even on oil pricing, the government has announced that petrol prices will be market linked from now on. Further, the government has raised the Administered Price Mechanism (APM) based gas price for power and fertilizer units and city gas projects.

Reduction of protection to SME sector: The government has over the years been reducing reservations for small-scale industries (SSI). The number of items reserved was reduced from a peak of 873 in October 1984 to 326 in May 2006 and further to 20 currently.

Privatization of SOEs: In India, the disinvestment process initially focused on the transfer of minority rights to public and financial institutions. However, no controlling right was sold to the private sector. In 2003-04, the government privatized a few public sector enterprises, where it passed the controlling interest to strategic investors. Indeed, F2004 saw a sharp jump in divestment proceeds to US$3.7bn, as compared with a combined US$3.9bn in F1998-F2003. However, following the formation of the coalition government led by the United Progressive Alliance in May 2004, the pace of divestment slowed again. The total proceeds from divestments during the five years ending March 2009 were just US $2.7 bn. Starting F2010, the government plans to initiate a meaningful divestment program, targeting collection proceeds. The budget target calls for raising Rs400bn (US $8.7bn, 0.6% of GDP) from divestments in F2011 compared with an estimated ` 250bn (US $5.5bn, 0.4% of GDP) in F2010.

Labor reforms: India still lags many other emerging markets in terms of labor reforms. Current regulations require enterprises employing more than 100 people to undergo a complex approval process before retrenching employees.

India had a marked acceleration of economic growth after the debt crisis of 1991 and the ensuing economic reforms of Prime Minister Narasimha Rao of the Indian Congress Party.

According to several authors, the essential reforms that led to the period of rapid growth were gradually introduced starting in the mid-1980s, while after 1992 there was a sharp rise in the rate of economic growth. In the 1992-2008 period, the rate of growth of real GDP and real GDP in PPA markedly increased surpassing respectively 7% and 5%.

India's GDP is transitioning to higher sustainable growth rates. India's GDP growth has moved from a range of 6% in the early 2000s to 8-8.5% currently (Dougherty, 2009). The shift in GDP is basically due to three factors, improvement in demographic, structural reforms and globalization. The Morgan Stanley has said in a recent research report that Indian economy would continue to post strong recovery in rest of the fiscal and growth in the gross domestic product (GDP) over the fiscal year 2011 would be around 8.5%. The research department of the financial conglomerate also expects strong growth momentum in medium run. With regard to industrial production, the financial services giant believes that the recent dip in the numbers was largely due to the base effect and growth in index of industrial production (IIP) will pick up once again in two to three months. Continued accelerated sales in automobiles also reflects strong demand scenario in the country (Morgan Stanlay, 2010).

The percentage of mining, manufacturing, and electricity has been depicted in the table below, which clearly indicates that the manufacturing sector contributes the highest in the industrial sector and the growth of manufacturing sector from the second quarter of 2009 is quite high and is growing at a considerable rate that is from 3.6% to 16.8% in 2009.

Growth in the Index of Industrial Production

Percentage: Table 1

Period	Mining	Manufacturing	Electricity
Q1 2008-09	4	6.1	2
Q2 2008-09	3.8	5.6	3.2
Q3 2008-09	2	1.3	2.9
Q4 2008-09	0.9	0.8	3
Q1 2009-10	6.8	3.6	5.8
Q2 2009-10	9	8.7	7.4
Q3 2009-10	10.3	14.4	3.8
Q4 2009-10	12.9	16.8	7.1
Q1 2010-11	10.2	12.6	5.6
Q2 2010-11	7	9.9	2.1
Q3 2010-11	5.8	5.1	6.5

Source: Indiastats.com

The graphical representation of the above table has been shown in the graph below. The manufacturing sector contributes the maximum in the index of industrial production followed by mining and electricity. From the first quarter of 2010-11, index of industrial production showed a steep downfall with manufacturing sector contribution id 12.6 %, mining 10.2 % and electricity contributes to 5.6 % only. The IIP in India has decreased in 2011-12 due to the global economic slowdown.

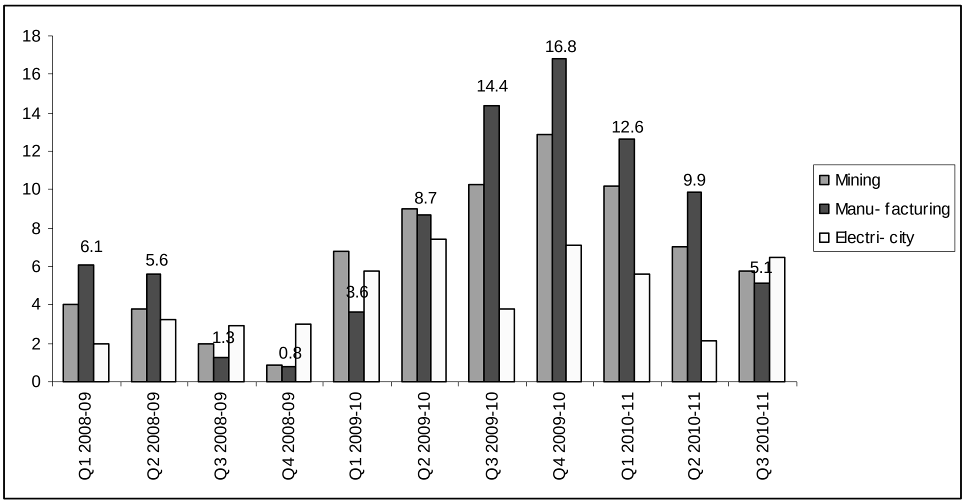

Figure 1

Industrial Sector in China

China's annual economic growth has averaged 10% since 1978. Following a sharp rise in the working-population ratio in the early 1970s, the government initiated major structural reforms in 1978, which allowed a virtuous interplay of labor and capital. India's economic growth underwent a structural shift at the start of the 1980s. The National Bureau of Statistics of China provides yearly data on GDP at constant prices and employment by sector and subsector; they are published on the China Statistical Yearbooks.

China's most successful policy initiatives have been in modernizing its infrastructure, allowing labor mobility, welcoming foreign direct investment (FDI) and embracing competition.

GDP at US $in billions is been depicted in the following table.

Table 2

GDP(US$BN)	India	China
2005	720	2,284
2006	837	2,788
2007	947	3,496
2008	1,229	4,534
2009	1,212	4,999
2010	1,314	5,795
2011(E)	1,559	6,985

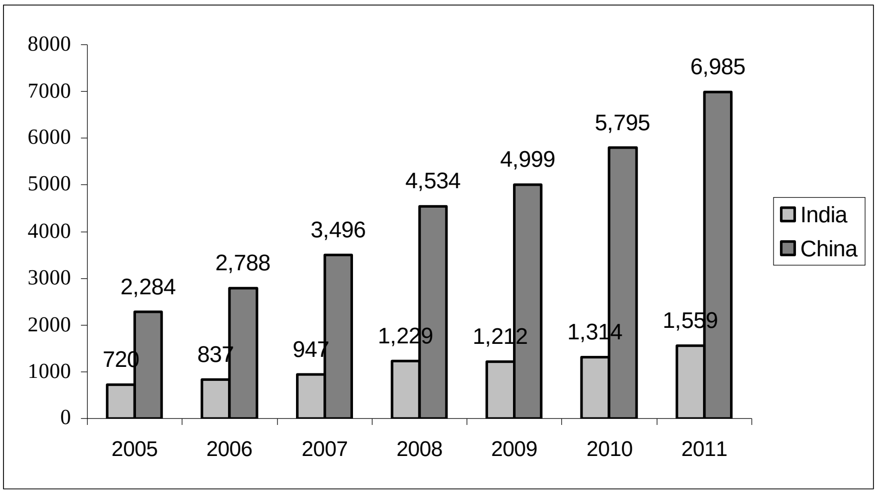

Figure 2

As is clear from the graph above the difference between the GDP is expanding from 2005 to 2011. In 2005 the GDP in China was approximately three times more than the Indian GDP whereas in 2011 this difference rose by more than five times. The higher growth in GDP in China is contributed to the rapid increase in manufacturing sector due to heavy inflow of foreign direct investment.

Sector Breakdown of GDP

Table 3

India	**1960**	**1970**	**1980**	**1990**	**2000**	**2009**
Agriculture	44%	43%	37%	32%	26%	20%
Industry	19%	20%	23%	24%	24%	26%
Services	38%	37%	40%	44%	50%	55%

Table 4

China	1960	1970	1980	1990	2000	2009
Agriculture	23%	35%	30%	27%	15%	10%
Industry	44%	40%	48%	41%	46%	46%
Services	32%	24%	22%	32%	39%	43%

Source: RBI, CEIC, CSO, Morgan Stanley Research

As is evident from the table above the growth of industrial sector as a percentage of GDP is much higher in China than in India. India's industry has increased from 19% of GDP in 1960 to 26% of GDP in 2009. Whereas Industrial growth in China has increased from 44% of GDP in 1960 to 46% of GDP in 2009.

China is considered to be the most rapidly expanding economy in the world with favorable exchange rates, double digit growth rates and low cost labor base. A recent study by the World Bank has made a useful attempt at forecasting China's potential growth over the coming decade. According to WB estimate, the potential GDP growth.

Would be 8.4% over 2011-15 and 7.0% over 2016-20. (2010, Morgan Stanlay research).

According to the Morgan Stanlay projections the industrial sector-to-GDP ratio is to decline by 5 percentage points, offset by a rising share of services. Nevertheless, the industrial share is still relatively high, at 35% by 2020. There is a wide gap in labor productivity between primary and non-primary industries in China, pointing to significant potential for productivity gains through the transfer of labor between industries. Specifically, labor in non-primary industries (e.g., manufacturing and service) has consistently been 4.5-5.0 times as productive as labor in primary industry (e.g., farming and other agricultural activities) since the early 2000s. The gap in labor productivity between non-primary and primary industries has in fact widened substantially in 2000-09 relative to the previous decade (1990-99). Primary industry still has a disproportionately large share of total employment in China, suggesting an overhang of surplus labor in primary industry in rural areas. The primary sector represented as much as 35% of total employment in 2008. Although this ratio has already fallen significantly— from 45% 10 years ago and 55% 20 years ago—it is still 1.7 and 2.0 times as high as the shares of Korea and Japan, respectively, when the latter two were at a stage of development similar to that of China at present.(November 8, 2010, Morgan Stanlay Research).

METHODOLOGY

Holt's method is an exponential smoothing time series method, which projects the value of the variable by examining its past behavior. It is an extension of the exponential smoothing method, which assigns exponentially decreasing weights to the observation that get older. Exponential smoothing forecasts the next value (F_t) of the observed time series of industrial production (Y_t). Then the difference between Y_t and F_t is the forecast error. In an exponential smoothing, the forecasting takes place by using the previous value with its adjusted forecast error. That is, the forecast for the next period is

$$F_{t+1} = F_t + \alpha\,(Y_t - F_t) \qquad (2.1)$$

where α is a smoothing constant (weight) with value between 0 and 1.

Rewriting equation (2.1), we get $F_{t+1} = \alpha\, Y_t + (1 - \alpha)\, F_t$ (2.2)

The forecast F_{t+1} is based on assigning weight 'α' to the most recent observation Y_t and assigning (1-α) weight to the most recent forecast F_t. Substituting F_{t-1}, F_{t-2},……F_1 for F_t on the right hand side of equation (2) repeatedly, the general form of the exponential smoothing method is

$$F_{t+1}= \alpha Y_t + \alpha(1 - \alpha)Y_{t-1} + \alpha(1 - \alpha)^2 Y_{t-2} + \ldots\ldots\ldots + \alpha(1 - \alpha)^{t-1} Y_1 + (1 - \alpha)^t F_1 \qquad (2.3)$$

However, the forecast for Holt's exponential smoothing is found to be using two smoothing constants (weight) α and β with values between 0 and 1. Hence the model is represented in three equations, i.e.

$$Lt = \alpha Yt + (1 - \alpha)\,(Lt\text{-}1 + bt\text{-}1) \qquad (2.4)$$

$$b_t = \beta(L_t - L_{t-1}) + (1 - \beta)b_{t-1} \qquad (2.5)$$

$$F_{t+m} = L_t + b_t m \qquad (2.6)$$

Here L_t denotes an estimate of the level of the series at time t and b_t denotes an estimate of the slope of the series at time t. Equation (2.4) adjusts L_t directly for the trend of the previous period b_{t-1}, by adding it to the last smoothed value L_{t-1}. This helps to eliminate the lag and brings L_t to the approximate level of the current data value. Equation (2.5) then updates the trend, which is expressed as the difference between last two smoothed values. This is appropriate because if there is a trend in the data, new values should be higher or lower than the previous ones. Since there may be some randomness remaining, the trend is modified by smoothing with β the trend for the last period ($L_t - L_{t-1}$), and adding that to the previous estimate of the trend multiplied by (1- β). Thus equation (2.5) is similar to the basic form of single smoothing given in equation (2.2) but applies to the updating of the trend. Finally, equation (2.6) is used to forecast. The trend b_t is multiplied by the number of periods to be forecast, i.e., m and then added to the base value L_t (Makridakis, et al. 1998).

COMPARATIVE INDUSTRIAL GROWTH IN INDIA AND CHINA

Since 1980, China and India have achieved remarkable rates of economic growth and poverty reduction. The emergence of China and India as major forces in the global economy has been one of the most significant economic developments of the past quarter century. The Indian economy has sustained a consistently high rate of growth since initiating economic reforms in the early 1990's. In India most of the growth in industrial output is attributed to total factor productivity. It is important to note that China's transition started somewhat earlier and involved greater change than in India since it was, on the whole, further from being a market economy. However, both countries' reforms are still ongoing, so it would be premature to judge only past progress.

By Holt’s and Winter’s method, industrial production in India and China is been forecasted till 2015. It has been found that China’s has grown at an annual growth rate of 12.6% whereas India’s industrial production has increased an annual growth rate of 6.84%.

Table 5: Estimated Weight and MSE of Holt Method

Industrial production	α	β	MSE
China	1	1	8782353611767390000000.00
India	1	.33036739	775271817830955000000.00

The estimated values of weights α, β, and the mean square error (MSE) of Holt methods are presented in Table 5. The parameters α and β were chosen by minimizing the MSE over the period of observation using solver.

Table 6: projected industrial growth

Projected industrial production (US $ Billion)	**2011**	**2012**	**2013**	**2014**	**2015**
India	349349733915	369363398625	389377063335	409390728044	429404392754
China	2403815588481	2688435235596	2973054882712	3257674529827	3542294176943

DOUBLE EXPONENTIAL SMOOTHING

This method is used when the data shows a trend. Exponential smoothing with a trend works much like simple smoothing except that two components must be updated each period - level and trend. The level is a smoothed estimate of the value of the data at the end of each period. The trend is a smoothed estimate of average growth at the end of each period. The specific formula for simple exponential smoothing is:

St = _ _ yt + (1 − _) _ (St−1 + bt−1) 0 < _ < 1 (2)

bt = _ (St − St−1) + (1 −) _ bt−1 0 < < 1 (3)

Note that the current value of the series is used to calculate its smoothed value replacement in double exponential smoothing.

Initial Values

There are several methods to choose the initial values for St and bt.

S1 is in general set to y1.

Three suggestions for b1

b1 = y2 − y1

b1 = [(y2 − y1) + (y3 − y2) + (y4 − y3)]/3

b1 = (yn − y1)/(n − 1)

CONCLUSION: FORECASTED GROWTH IN CHINA

It has been found that the annual growth rate of industrial production in China is 12.6%, China's industrial production has increased due to FDI inflows and cheap labor. The actual and forecasted industrial production growth is been depicted in the following graph. China, with an FDI-driven, export-led model, has grown at an annual average of 9.7% since economic reforms were initiated in 1978. India has followed a consensual democratic market model; GDP has expanded at 5.8% a year since the economy was opened up in 1991.

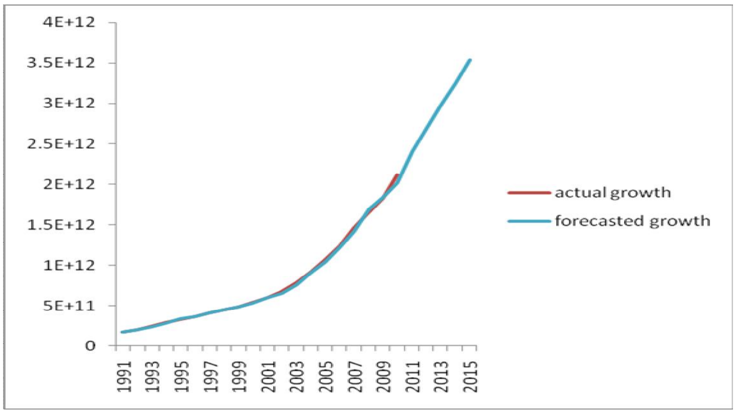

Figure 3: China's Industrial Growth

FORECASTED GROWTH IN INDIA

India's growth of industrial production has increased steadily after 1991. The forecasted annual growth rate in India is 6.84 %. Still the growth in industrial sectors lags behind China . India could lift its growth rate to 7% plus over the next 10 yrs according to the recent research conducted by Morgan Stanlay. India's challenge is to introduce "big shift" reforms to cut its fiscal deficit and increase savings for infrastructure investments, which would make it a global competitor in manufacturing exports.

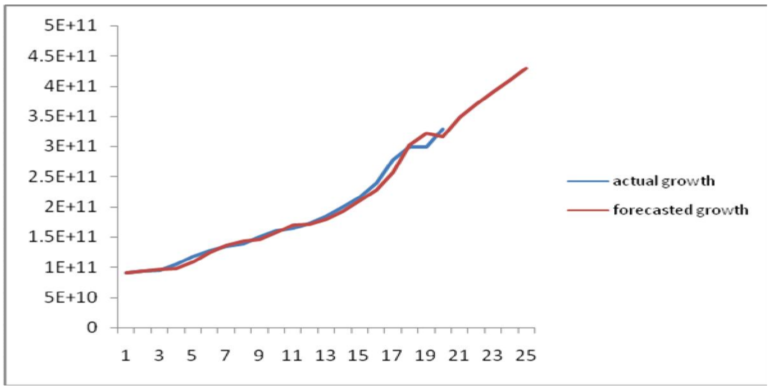

Figure 4: India's Industrial Growth

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ISBN: 978-93-5051-662-1

11

Bt Cotton A Genetic Engineering Tool for Enhancement of Cotton Production and Economic Growth

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ABSTRACT

This paper will discuss about the adoption of Bt-cotton technology among farmers, its contribution in economy, higher cotton yield, increase in export of raw cotton, reduction in the application of chemical insecticides. Bt-cotton was first planted in India in 2002. Following its success, the area under this crop and the number of farmers who adopted this technology increased significantly from year to year. The ever-increasing demand for Bt-cotton seeds is a clear reflection of farmers' confidence in this technology and its benefits.

Bt-cotton, being a new technology, has attracted a great deal of interest and despite the continued opposition by a small section, the Indian cotton farmers have accepted this technology in a big way and derived social and economic benefits. This paper will deal with the contribution of Bt-Cotton technology in cotton production, yield, development, commercialization of Bt Cotton. This paper will also deal with contribution of Bt Cotton in economic growth, agricultural growth. This paper will explore the benefits of Bt Cotton for farmers and agricultural sector to achieve desired level of cotton productivity.

Keywords: Bt Cotton, Economic Benefits.

INTRODUCTION

Agriculture sector is playing a key role in driving India's economy. The growth of this sector continues to influence the growth of the economy. India is one of the largest grower of the cotton in the world. Most of the cotton in India is grown under rain fed conditions, and about a third is grown under irrigation (Sundaram, Basu, Krishna Iyer, Narayanan, & Rajendran, 1999). The major problem is pests controls, especially the bollworm complex (American bollworm, Helicoverpa armigera; Spotted bollworm, Earias vittella; Pink bollworm, Pectinophora gossipiella). Sucking pests such as aphids (Aphis gossypii), jassids (Amrasca bigutulla), and whiteflies (Bemisia tabaci) are also a problem in terms of direct damage to the plant and the transmission of viruses [1]. Bt. cotton (Bacillus thuringiensis) was introduces by the Indian government in March 2002 and permitted commercial cultivation of genetically modified Bt cotton because it produces a protein that is toxic to bollworms. The various laboratory and field studies showed that Bt cotton was toxic to bollworm and did not have any adverse effect on other crop and organism. The introduction of Bt. Cotton has helped in cotton production and Indian economy.

COTTON PRODUCTION, YIELD AND IMPORT/EXPORTS

Cultivated land in India has affected because of the shift to the non-agricultural purposes but because of the advent of Bt cotton there has seen a good surge in cotton production. There was a decline in cultivated land by around 8 lakh hectares during the period of 2003 to 2009. As compared to 1,83,186 thousand hectares during 2003-04, the agricultural land in the country has come down to 1,82,385 thousand hectares during 2008-09. According to the ministry these farm land were being used for non-agricultural purposes including building, roads and railways (Source: The Hindu, Dec. 2011).

But coincidental with the introduction of Bt cotton between 2002 and 2009, the average yield of cotton in India, which used to have the lowest yields in the world, increased from 158.00 Lakh Bales in 2001-02, to 290.00 Lakh Bales in 2008-09 and estimated to increase to 295.00 Lakh Bales in 09-10 and 329.00Lakh Bales in 10-11 season. Thus, at a national level, Bt cotton is a major factor contributing to higher cotton production which increased from 15.8 million bales in 2001-02, to 24.4 million bales in 2005-06, 28 million bales in 2006-07, and 31.5 million bales in 2007-08, which was a record cotton crop for India (Cotton Advisory Board, 2008). The Cotton Advisory Board projects 30.5 million bales of production in 2009-10 [2]. The state wise analysis of cotton area, cotton production and cotton productivity (kg/ha) shows that Maharashtra possesses larger productivity area than Gujarat but when it comes to production Maharashtra ranks second as compared to Gujarat. The analysis shows 35.03 lakh hectare land in Maharashtra during 2009-10 as compared to the Gujarat i.e, 26.25 lakh hectare but cotton productivity (kg/ha) of Gujarat is approximately doubled than Maharashtra. The larger area and contribution of Bt cotton towards cotton yield shows the opportunity for Maharashtra to develop economical benefits for the country.

AREA, PRODUCTION, CONSUMPTION, IMPORT AND EXPORT OF COTTON

Year	Area	Production (DOCD estimate)	Production (CAB estimate)
2000-01	85.76	114.48	140.00
2001-02	87.30	101.26	158.00
2002-03	76.67	92.57	136.00
2003-04	76.30	137.88	179.00
2004-05	87.86	170.02	243.00
2005-06	86.77	189.27	241.00
2006-07	91.44	240.40	280.00
2007-08	94.14	243.14	307.00
2008-09	94.06	258.25	290.00
2009-10(P)	103.10	239.35	295.00
2010-11(E)	110.55	325.48	329.00

Scale: Production in Lakh Bales; Area in Lakh ha

Note: The Opening and Closing stock are based on verified figure. (ii) DOCD-Directorate of Cotton Development, Ministry of Agriculture. (iii) CAB-Cotton Advisory Board (iv) E-Estimated by Cotton Advisory Board as on 18:12:2009 (v) Cotton year Sep-Aug till 1994-95 & Oct-Sep 1995-96 onwards.

STATE WISE COTTON AREA (Lakh Ha) FROM 2004-05 TO 2010-11

State	04-05	05-06	06-07	07-08	08-09	09-10	10-11 (P)
Punjab	5.09	5.57	6.07	6.04	5.27	5.11	5.30
Haryana	6.21	5.83	5.30	4.83	4.56	5.07	4.95
Rajasthan	4.38	4.54	3.50	3.69	3.02	4.44	3.35
Gujarat	19.06	20.77	23.90	24.22	23.54	26.25	26.33
Maharashtra	28.40	28.89	30.70	31.95	31.42	35.03	39.32
Madhya Pradesh	5.76	6.35	6.39	6.30	6.25	6.11	6.50
Andhra Pradesh	11.78	9.72	9.72	11.33	13.99	14.75	17.84
Karnataka	5.21	3.81	3.75	4.03	4.08	4.55	5.45
Tamil Nadu	1.29	1.52	1.22	0.99	1.09	1.04	1.22
Orissa					0.58	0.54	0.74
Others	0.68	0.80	0.87	0.76	0.26	0.21	0.45
Total	87.9	88.20	91.40	94.14	94.06	103.10	111.42

(P) = Provisional

State Wise Cotton Production (Lakh Bales) From 2004-05 To 2010-11

State	04-05	05-06	06-07	07-08	08-09	09-10	10-11 (P)
Punjab	16.50	21.00	26.00	20.00	17.50	13.00	16.00
Haryana	15.50	14.00	16.00	15.00	14.00	15.25	14.00
Rajasthan	11.00	11.00	8.00	9.00	7.50	12.00	9.00
Gujarat	73.00	89.00	101.00	110.00	90.00	98.00	103.00
Maharashtra	52.00	36.00	52.00	62.00	62.00	65.75	82.00
Madhya Pradesh	16.00	18.00	18.00	20.00	18.00	15.25	17.00
Andhra Pradesh	32.50	30.00	35.00	46.00	53.00	54.50	53.00
Karnataka	8.00	6.50	6.00	8.00	9.00	12.25	10.00
Tamil Nadu	5.50	5.50	5.00	4.00	5.00	5.00	5.00
Orissa						1.00	2.00
Others	1.00	1.00	1.00	1.00	2.00&	1.00	2.00
Loose Supply	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Total	243.00	244.00	280.00	307.00	290.00	305.00	325.00

(P) = Provisional

State Wise Cotton Productivity (Kg/Ha) From 2004-05 To 2010-11

State	04-05	05-06	06-07	07-08	08-09	09-10	10-11 (P)
Punjab	551	610	728	563	565	432	513
Haryana	424	373	513	528	522	511	483
Rajasthan	427	397	389	415	422	459	456
Gujarat	651	794	718	772	650	634	665
Maharashtra	311	213	288	330	335	319	354

Madhya Pradesh	472	494	479	540	490	424	444
Andhra Pradesh	469	527	612	690	644	628	505
Karnataka	261	268	272	337	375	457	311
Tamil Nadu	725	668	697	678	780	817	696
Orissa						314	459
All India	470	478	521	554	524	502	495

(P) = Provisional

Source: Cotton Advisory Board (CAB) as on 30; 08.2011;

BT COTTON

Bt cotton is the only crop approved for commercial cultivation in nine states in India by Genetic Engineering Appraisal Committee (GEAC). The findings of laboratory and field studies conducted and also commissioned by Central Institute for Cotton Research (CICR), Nagpur showed that Bt. cotton was toxic to bollworms but did not have any direct effect on any of the non- targeted beneficial insects and was also non-toxic to, birds, fish, cow, goat and soil micro-organisms. The introduction of Bt. cotton hybrids has helped in production increase from 156 lakh bales (170 kg lint per bale) in 2001 to an estimated 356 lakh bales in 2011. Bt. cotton was introduced in 2002 and the area increased from 0.29 lakh hectares in 2002 to 95.04 lakh hectare in Kharif 2011(target). The productivity was 309 kg per hectare in 2001 before the introduction of Bt. Cotton which increased to 495 Kg/ha in 2010. Maximum gains in yield increase have been obtained in Gujarat, Andhra Pradesh, Maharashtra, Haryana, Punjab and Tamil Nadu (Source: http://www.commodityonline.com).

Various research analyses show that Because of the vulnerability to insect pests, India was suffering in cotton production but with the introduction of Bt cotton in 2002 this sector has been showing a good surge in cotton production. Among the various insects, cotton bollworm is the most dangerous pest for cotton in India. Insecticides valued at US$660 million are used annually on all crops in India, of which about half are used on cotton alone (Manjunath, 2004; Rai *et al.*, 2009). As no option is available for boll worm resistance. Bt or Bacillus thuringiensis is a ubiquitous soil bacterium first discovered in 1901 by Ishiwata, a Japanese microbiologist (Kumar et al., 1996). Later it was found that some Bt strains (Cry+) were highly toxic to larvae of certain insect species which are also plant pests. Thus genetic transformation technology made it possible to incorporate cry genes and thus the ability to produce Bt proteins in plant cells so that target insect larvae infesting the crop plants are effectively killed [4]**.** The research conducted at several places in India shows following benefits of Bt cotton:

- Increase in Cotton yield
- Expense reduction of insecticide application.
- No adverse effect of other crops
- Control of bollworm species

ECONOMIC CONTRIBUTION OF BT COTTON

Due to the adoption of Bt cotton there has been a noticeable changes occurred in Indian agriculture sector. Majority of the study has suggested that fertiliser increases yield in cotton, farmers do not use any form of fertiliser, largely because it is too expensive. However, as insect pests are a major cause of yield loss in cotton there was no alternative prior to the advent of the Bt varieties than to apply insecticides to control the major pests i.e., the bollworm complex [5].

The number of Bt hybrids released for commercial cultivation till date has crossed 600 with more than 35 seed companies. The first true breeding variety has also been released by the Indian Council of Agricultural Research (ICAR). This provides an opportunity to the farmers to save their own seed without losing the efficacy of Bt gene **(Source: APAARI)**. The area under Bt cotton reached 7.6 million hectares in 2008-09 constituting nearly 81% of the total cotton area in India. As a result, the production also reached 4.9 million tonnes. All these are indicators of the extraordinary impact and acceptance of Bt technology in cotton by the Indian farmers. This shows the positive impact of Bt cotton technology on Indian economy.

CONCLUSION

Our literature reviews have presented our view of Bt Cotton a genetic engineering tool for enhancement of cotton production and economic growth. Our findings appear to show that with the commercial release in 2002, Bt cotton has had a significant positive impact on yields and on the economic performance of cotton growers. Our review shows that because of the vulnerability to insect pests, India was suffering in cotton production but with the introduction of Bt cotton in 2002 this sector has been showing a good surge in cotton production. Bt or Bacillus thuringiensis is a ubiquitous soil bacterium responsible for Bt strains (Cry+) which is highly toxic to larvae of certain insect species which are also plant pests. Thus genetic transformation technology made it possible to incorporate cry genes and thus the ability to produce Bt proteins in plant cells so that target insect larvae infesting the crop plants are effectively killed. This paper shows the opportunity for Maharashtra as it shows a larger productivity area as compared to the other states in India to become a larger producer of Bt Cotton.

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ISBN: 978-93-5051-662-1

12 Managing Human Resources in Global Downturn

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ABSTRACT

It was the biggest challenge during recession in front of the human resource managers to manage human resources. There was a sharp rise in the unemployment rates worldwide resulting from the downturn has given rise to the global war for talent, as corporate managers undertake mass layoffs. Human resource profession has turned from HR management which emphasis on administrative processes to a new HR that emphasizes on the strategic dimensions of human capital management. In global downturn human resource managers has to concentrate on human capital management and resisting talented, experienced employees. Managing human resources includes managing talented employees, Redefining and expanding spheres of authority and responsibility, managing knowledge, retention of talented employees, engaging employee, proper manpower planning and optimum utilization of human resources. This paper focuses on how human resource managers can manage human resource in global downturn. This paper also examines the strategies effective for human resource managers for managing HR during recession.

Keywords: Retention of talented employees, redefining and expanding authority, manpower planning, global downturn, engaging employees, job satisfaction, layoffs, global HR recovery.

INTRODUCTION OF MANAGING HUMAN RESOURCES IN A GLOBAL DOWNTURN

The sharp rise in worldwide unemployment rates resulting from the economic downturn has diminished the urgency of the global war for talent, as corporate managers undertake mass layoffs and workers focus on job security. But the long-term structural factors driving the competition for human capital remain same. Companies that succumb to short-term disruptions will be poorly equipped to cope with these structural changes in the global labour market, while enterprises that strengthen their human resource capabilities during the downturn will be well positioned when the world economy recovers.

The human resource profession is undergoing a transition from the tradition model of HR management (which focuses on administrative processes) to a "New HR" paradigm that emphasizes the strategic dimensions of human capital management. The new model of human resource management demands HR professionals who possess an understanding of the role of human capital in corporate strategy, a capacity to navigate a complex and diverse global labour market, and an ability to engage young employees who bring different values and expectations than their predecessors.

Effective human resource management also requires the active participation of senior corporate executives who can identify rising stars in the organization, mentor aspiring leaders, and transcend organizational turf battles that encourage divisional hoarding of talent. The global recession presents an opportunity for strong companies to strengthen their human resource capabilities, including hiring of talented individuals caught in corporate downsizing.

Even robust companies cannot avoid layoffs in the current recession. But skillful management of the downsizing process (e.g., generous severance packages for departing workers) strengthens the company's image and thus bolsters its capacity to attract talent employees when the economy rebounds.

The "global war for talent", which became the byword of human resource management in the 2000s, appears less urgent as unemployment surges in the wake of the world recession.

Jobless rates in the Euro zone and the United States surpassed 7.0 percent by the end of 2008, and will approach double digits in 2009 as companies slash their payrolls. Unemployment rates in the BRIC countries and other emerging markets are also rising, creating worker surpluses in what were recently tight labor markets. China, whose manufacturing sector suffered labor shortages earlier in the decade, now exhibits mounting unemployment that threatens the country's socioeconomic stability. Chinese export manufacturers are releasing large numbers of migrant workers, precipitating a reserve migration from once-booming southern coastal regions to underdeveloped interior provinces.

The weakening of the global labor market affects a broad spectrum of industries and occupations. Workers in financial services, manufacturing, and retailing face massive job cuts. Managers and engineers previously ensconced in comfortable positions at high-growth companies also confront growing uncertainty as the downturn spreads to once-robust sectors of the global economy. Even rising stars at technology companies accustomed to poaching by rival firms are now hedging their bets and focusing on immediate job security.

Under these circumstances, corporate managers have a strong temptation to divert attention from the global war for talent (driven by competition for skilled employees amid labor scarcity) to downsizing of the workforce (impelled by falling output and declining revenues). Human resource management becomes a target of discretionary spending cuts as companies struggle to boost flagging earnings.

HR managers face a weaker imperative to retain talented employees, whose bargaining power and job mobility have diminished in the slack labor market.

TRENDS IN THE GLOBAL LABOUR MARKET

However, companies that yield to short-term disturbances in the global labour market place themselves at risk of losing their long-term competitiveness. The structural factors underpinning the war for talent remain intact despite the economic downturn:

- **Globalisation** heightens the importance of human capital as a competitive asset, particularly for companies based in high-income economies that rely on productivity gains to neutralise the labour cost advantages of emerging market competitors.
- **Demographic patterns** clearly point to future labour shortages in North America, Europe, and developed Asia, where fertility rates are low and aging workers are approaching retirement.
- **The increasing technological content** of global services and manufacturing raises the premium on highly talented employees, who enjoy high international mobility and multiple professional options.
- **Deficiencies** in production of university-trained scientists and engineers in Western countries widen gaps between workforce capabilities and enterprise requirements, compelling many American and European companies to tap the labour-rich emerging markets for skilled workers.
- **The entry of growing numbers** of Generation Y members ("Millennials") into the global labour market in coming years raises new challenges for corporate managers, who must compete globally for talented young professionals bringing different values and expectations into the workforce.

Human Resource Management as Strategy

The traditional model of human resource management focuses on administrative functions: Application processing, benefits, compensation benchmarking, dispute resolution, employee grievances, performance review, rules compliance. HR professionals typically spend the bulk of their time absorbed in these day-to-day tasks, disengaged from the organisation's broader objectives. The human resource curricula of business schools reinforce this tendency, producing HR professionals well trained in administrative processes but lacking a firm grasp of the links between human capital and corporate strategy.

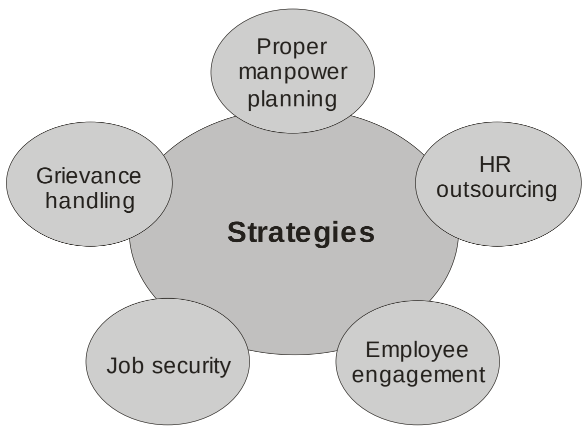
The HR profession is undergoing a migration from this tactical model to one that treats human resource management as a core strategic activity. Graduates of elite MBA programmes who previously shunned unglamorous HR jobs to take positions in corporate finance or management consulting are now pursuing human resource careers.

SEVERAL FACTORS ARE DRIVING THE RISE OF THE "NEW HR"

- Growing recognition by senior executives of the centrality of human capital in corporate strategy, especially managers of companies situated in global industries where strong HR management is a competitive differentiator
- Increasing complexity of global human resource management, which demands HR professionals able to recruit employees with varied backgrounds and to navigate diverse geographies and cultures
- Exhaustion of productivity gains from investments in new plant and equipment, which heighten the importance of high-quality workers as drivers of productivity growth
- Expanding opportunities for outsourcing of HR functions (e.g., benefits administration) that free up corporate resources to engage the strategic dimensions of human resource management
- Changing attitudes toward work by Generation Y individuals, whose recruitment and retention require an integrated approach to professional development and careful attention to the entire employee "life cycle"

These factors heighten demand for HR professionals possessing a strong strategic acumen, a global perspective, an embrace of workforce diversity as a competitive asset, and a capacity to identify and develop rising stars in the organisation. They highlight the need to align HR practices with labour force dynamics: e.g., forecasting future workforce requirements; assessing leadership pipeline trends; devising performance metrics that address both the "hard" and "soft" skills of employees. And they underscore the imperative of continuous and visible engagement in HR management by senior organisational leaders: Articulating the links between human capital development and corporate strategy; mentoring and coaching young employees with leadership potential; surmounting organisational silos to expand lateral opportunities and optimise deployment of the company's human assets.

STRATEGIES FOR MANAGING HUMAN RESOURCES IN GLOBAL DOWNTURN



1. **Proper manpower planning:** manpower planning is essential in case of global downturn to manage the talent inside the organization. At the time of recession layoffs occur, many of the employees have been pressurized to leave their job. Manpower planning plays an important role in deciding the retention and termination of employees.
2. **HR outsourcing:** HR outsourcing is very important in case when a particular organization is in need of employees for effective functioning and better performance.
3. **Employee engagement:** employee engagement is very necessary in this era of globalization in keeping all the employees engaged and attached with a particular organization.
4. **Grievance handling**: grievances are nothing but the dissatisfaction from the part of employees. In global downturn employees can posse's job dissatisfaction that may lead to talent loss which should be sort it out at initial stage by grievance handling.
5. **Job security:** Many organizations tried but failed in providing job security to the employee's results into a high turnover ratio which then turns to knowledge loss. In today's economy Knowledge management and talent management are the most important measures to survive and compete in this competitive environment.

Other Strategies

- Motivating employees
- Continuous consultation with employees
- Morale boosting
- Delegation of Authority
- Transparency in between the employer and employees
- Employees participation in management

HR MANAGEMENT IN A GLOBAL RECESSION

Investments in human capital are not likely to be a high priority for companies whose very survival is threatened by the global downturn. But for companies with strong balance sheets and compelling business models, the economic downturn presents important opportunities to strengthen their HR management capabilities and position themselves for the inevitable rebound:

- Utilising slack time to engage employees in professional development and technical training programmes, which serves both to sharpen skills and to preserve morale during tough times
- Opportunistic hiring of talented individuals caught in downsizing at weaker enterprises, which augments the company's human capital base for long-term growth
- Promoting cross-divisional and crossfunctional collaboration, which improves utilisation of human resources and encourages teamwork between employees who previously had little or no contact
- Redefining and expanding spheres of authority and responsibility of star employees, which permits assessment of the leadership potential of individuals who may eventually occupy executive positions in the organisation

Notwithstanding the proactive HR options available during recessions, few companies are escaping the fallout of what now rates as the worst global economic crisis since the Great Depression. As a result, even robust enterprises are downsizing their work forces.

While termination of employees is an avoidably painful process, how companies manage downsizing is an important component of human resource management. Generous treatment of departing workers - including high-quality placement services and severance packages - not only creates goodwill among former employees who will speak favorably about the company and who may indeed return as "boomerangs". It also burnishes the company's image as an attractive workplace ("employer brand") and thereby strengthens its capacity to recruit and retain talented persons when the economy.

SIGNIFICANCE OF STUDY

This research may also help various companies to build strategies for human resources in advance for dealing with the global downturn. This study will be a great contribution for companies which will work as a precaution to deal with such downturn.

PURPOSE/OBJECTIVES OF THE STUDY

The main purpose of this study is to examine the measures implemented by HR managers for survival during recession. This study explores various strategies for managing HR in global downturn. This study also focuses on the difficulties faced by HR managers in global downturn.

RESEARCH METHODOLOGY

Descriptive research design will be used for this study.

1. **Research approach**: Managing human resources in global downturn is a topic with much debate and little empirical data. Therefore, the approach adopted here is to generate data, analyze them and try to evaluate the effectiveness of strategies implemented during recession.
2. **Research Design**: Research design used in the present study is descriptive design. It describes phenomena as they exist. Descriptive studies generally take raw data and summarize it in a useable form. In this study raw data about implementation of strategies in global downturn by human resource managers in various companies are collected and analysis is being done on that data for drawing the useful conclusions.
3. **Data collection:** This research is based on the empirical data as well as the secondary data collected from different companies.

DATA ANALYSIS AND INTERPRETATION

- While termination of employees is an avoidably painful process, how companies manage downsizing is an important component of human resource management.
- Effective Manpower planning plays a very important role in managing human resources in global downturn.
- At the time of global downturn layoff's can also be the part of manpower planning at that time it is also important to provide job security to other talented employees who remains in the organization.
- Expanding opportunities for outsourcing of HR functions (e.g., benefits administration) that free up corporate resources to engage the strategic dimensions of human resource management
- Growing recognition by senior executives of the centrality of human capital in corporate strategy, especially managers of companies situated in global industries where strong HR management is a competitive differentiator.
- The global recession presents an opportunity for strong companies to strengthen their human resource capabilities, including hiring of talented individuals caught in corporate downsizing.
- Even robust companies cannot avoid layoffs in the current recession. But skillful management of the downsizing process (e.g., generous severance packages for departing workers) strengthens the company's image and thus bolsters its capacity to attract talent employees when the economy rebounds.

CONCLUSIONS

- Human resources can be effectively managed in global downturn with a proper manpower planning.
- Retention of talented employees is very necessary in global downturn to survive and succeed in the marketplace.
- Knowledge management is found as an important phenomenon to retain talent inside the organization.
- A preventive measure helps in fighting with the situations in global downturn.

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ISBN: 978-93-5051-662-1

13 Kolaveri Di: A Perfect Case of Viral Marketing

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ABSTRACT

Viral marketing describes any strategy that encourages individuals to pass on a marketing message to others, creating the potential for exponential growth in the message's exposure and influence. Viral marketing depends on a high pass-along rate from person to person. If a large percentage of recipients forward something to a large number of friends, the overall growth snowballs very quickly. The ultimate goal of marketers interested in creating successful viral marketing programs is to create viral messages that appeal to individuals with high social networking potential (SNP) and that have a high probability of being presented and spread by these individuals and their competitors in their communications with others in a short period of time.

Kolaveri means “murderous rage” i.e. ‘sudden and tremendous anger against someone’. It is sung by Danush for his movie “3”. This funny lyric is composed by Anirudh Ravichandar having words from Tamil and English general slangs used in India. As per the Economic Times, The soup song has turned an anthem for the future managers in the country. Kolaveri Di is a perfect case of viral marketing, which has created a huge difference in the world of publicity. Within first week of release, it received 1.3 million views on YouTube and more than 1 million shares on face book. On 30th November, Song has crossed 10 crore hits on YouTube.

In this paper researcher has tried to evaluate the reason for virility of song and role of social media in viral marketing.

Keywords: Kolaveri Di, Viral Marketing, Social Media.

INTRODUCTION

Every day we are exposed to thousand of advertising information, which includes many types of marketing communications: lots of printed ads being readers of some magazines and newspapers, free brochures received every week, television commercials, ads in the radio while we are driving between our workplace and home, billboards on the roads and buildings, billboards on the subway, bus and tram, printed ads in the ski-lift. Through our online connections we receive advertising in different forms: spams, pop-ups, banners, direct e-mails, newsletters. How many of them we dedicate time and energy to read, watch and hear not mentioning to consider them? How many of these techniques have already lost its credibility because of the way they reach us? What are the most reliable sources of recommendations of today? Has something changed from the old times in the marketplace?

Similarly to our forefathers from centuries we like to share information with each other. Once upon a time consumers had a good experience with a marketer or his product, they would tell their neighborhoods, parents and friends, who would often buy and use that product and then tell it to others – dispersing information and recommendations about somebody (producer, supplier, marketer) or something (product, animal, slave) via a social network. We behave in the same way in the today’s marketplace, as well. The phenomenon of passing the word – word of mouth – has been considered for many times as the unique reliable source of information. This seems to be remained constant. Word of mouth rather considered as the most powerful way not just to make the purchase decision easier but to help to make it (Silverman 2001).

Viral marketing describes any strategy that encourages individuals to pass on a marketing message to others, creating the potential for exponential growth in the message's exposure and influence. Viral marketing depends on a high pass-along rate from person to person. If a large percentage of recipients forward something to a large number of friends, the overall growth snowballs very quickly. The ultimate goal of marketers interested in creating successful viral marketing programs is to create viral messages that appeal to individuals with high social networking potential (SNP) and that have a high probability of being presented and spread by these individuals and their competitors in their communications with others in a short period of time.

OBJECTIVE OF THE STUDY

1. To evaluate the reasons for Virality of the Kolaveri Di
2. To study the role of social media in Viral Marketing
3. To study the relevance of Viral Marketing in today's marketing scenario

MOTIVATION OF STUDY

Our motivation stems primarily from our opinion that viral marketing is a powerful marketing tool with untapped potential. Viral Marketing Communication (VMC) can bring about benefits to marketers with its advantages such as low cost, high reach, high credibility, accountability, fast speed, ease of usage and ability to reach a global audience. With the increased usage of broadband and widespread diffusion of internet services like YouTube, Hotmail and Facebook, we think that there will be an increasing trend for VMC to be adopted by companies as part of their promotional mix in the future, thus fuelling our interest in this topic.

As viral marketing is still at an early stage of development, limited research has been done on consumer perception and response to such marketing techniques. A successful marketing strategy is one that is effective in attracting, satisfying and retaining target consumers (Best, 2009). Hence, there is a need to draw the connection between any form of marketing technique and its impact on consumer perception and behavior in order to evaluate its market effectiveness. While it is rather undisputable that VMC is effective in reaching out to potential consumers, it remains a question of how well consumer receptivity is to this new form of marketing. Therefore, we feel that there is a need to delve further into VMC from a consumer's point of view.

Research Focus

VMC comprises of diverse platforms and can spread in many forms, including e-mails, blogs, chat rooms, user forums, seeding websites, social networks, and viral videos. In order to have a more in-depth examination of consumer perception and response, for the purpose of our study, we will narrow down our focus to five selected forms of VMC, namely:

1. E-mail – Transmission of text messages and files electronically over computer networks
2. Videos – Video clips that gain popularity on video sites (for e.g. YouTube, MSN video) or through peer-to-peer transmission
3. Blogs – Shared online journals where people post diary entries on personal experiences
4. Social networks – Websites that encourage the building of online communication networks of members (for e.g. Facebook)
5. User forums – Online bulletin board system for holding discussions or posting user-generated contents

ELEMENTS OF A VIRAL MARKETING STRATEGY

Some viral marketing strategies work better than others, and few works as well as the simple Hotmail.com strategy. But below are the six basic elements that can be included in any marketing strategy. A viral marketing strategy need not contain ALL these elements, but the more elements it embraces, the more powerful the results are likely to be. An effective viral marketing strategy:

1. Gives away products or services
2. Provides for effortless transfer to others
3. Scales easily from small to very large
4. Exploits common motivations and behaviors
5. Utilizes existing communication networks
6. Takes advantage of others' resources
7. Let's examine at each of these elements briefly.

1. Gives away Valuable Products or Services

"Free" is the most powerful word in marketers' dictionary. Most of viral marketing programs are give away valuable products or services to attract customers' attentions. They choose to use free programs like free e-mail or free software download to catch the customers' eyeballs. This can generate a groundswell of interest from customers. Catch the eyeballs can bring huge profits in the future. So they choose to give away something now and sell something in other time (Lau and NG, 2001).

2. Provides for Effortless Transfer to Others

Public health nurses offer sage advice at flu season: stay away from people who cough, wash your hands often, and don't touch your eyes, nose, or mouth. Viruses only spread when they're easy to transmit. The medium that carries your marketing message must be easy to transfer and replicate: e-mail, website, graphic, software download. Viral marketing works famously on the Internet because instant communication has become so easy and inexpensive. Digital format make copying simple. From a marketing standpoint, you must simplify your marketing message so it can be transmitted easily and without degradation.

3. Scales Easily from Small to Very Large

The transmission method which can spread like wildfire must be rapidly scalable from small to very large. If the virus multiplies only to kill the host before spreading, nothing is accomplished (Hogan, Lemon and Libai, 2004). So long as companies which use viral marketing strategy have planned ahead of time how they can make the messages pass from one customer to another faster. They must build in scalability to their viral model.

4. Exploits Common Motivations and Behaviors

Clever viral marketing plans take advantage of common human motivations. Desire and greed drives people to pass and get messages. This leading to communicate produces millions of websites and e-mail messages. To be a winner, a company should design a marketing strategy that builds on common motivations and behaviors for its transmission.

5. Utilizes Existing Communication Networks

Most people are social, except the nerdy, basement-dwelling computer science grad students. Social scientists show that each person has a network of 8 to 12 people in their close network of friends, family, and associates (Hogan, Lemon and Labia, 2001). The broader network may consist of hundreds, or thousands of people, depending on his position in society. Network marketers have known well about the power of these human networks, both the strong, close networks and the weaker networked relationships. Place messages into existing communications between people, then you rapidly multiply its dispersion (Modzelewski, 2000).

6. Takes Advantage of Others' Resources

The most creative viral marketing plans use others' resources to get the word out (Lau and NG, 2001). Such as news release can be picked up to form the basis of articles seen by thousands of readers. You can be relaying your marketing message through make good use of others' newsprint or web pages. Someone else's resources are depleted rather than your own.

KOLAVERI DI: A SUCCESSFUL VIRAL MARKETING CAMPAIGN

Kolaveri means "murderous rage" i.e. 'sudden and tremendous anger against someone'. It is sung by Dhanush for his movie "3". This funny lyric is composed by Anirudh Ravichandar having words from Tamil and English general slangs used in India. As per the Economic Times, The soup song has turned an anthem for the future managers in the country. Kolaveri Di is a perfect case of viral marketing, which has created a huge difference in the world of publicity. Within first week of release, it received 1.3 million views on YouTube and more than 1 million shares on face book. On 30th November, Song has crossed 10 crore hits on YouTube.

- It is detected that, Kolaveri virus spreading through human souls irrespective of age, sex and language.
- Most of the victims are observed humming 'Kolaveri.. Kolaveri.. Kolaveri." In the mid night of 18 Nov, virus is injected though social media targeting all youth with no language barrier.
- Virus will remain active for around 40-50 days. It will flow in the Indian blood affecting their souls.

REASONS FOR VIRALITY

Simplicity: The song becoming a hit without having any element of glamour, adoption of a new concept that transcends the language boundary and the audience accepting an experiment that`s different from the traditional genre of music. The blend of two languages along with the funky music is what did wonders for the number'. The lyric is written in very simple English words and is in Tanglsih (Tamil and English) and the subtitles makes easier for people to sing song along with it.

Emotional Connect: This song is sung by young boy with a broken heart and such songs are called as Soup Songs. "Why this Kolaveri Kolaveri Di" It means "Why are you so angry with me??" These are words of a boy whose love has been rejected by the girl whom he loves so much and from the heart.

Superb Beats: The beats were simple yet nerve wrecking. The simplicity of the song has enabled everyone to enjoy the song regardless of the language.

Universal Presence: the popularity was instantaneous that it created curiosity for everyone to hear it and analyze what is so great about it. Video clips that gain popularity on video sites (for e.g. YouTube, MSN video), music television etc.

Addictiveness: Anybody who listened the song they felt that the simplicity and tune is addictive and they listened to it many times and also suggested to their friends, relatives and others too.

The Meme Effect: Adding of "u" at the end of the normal English is catching up slowly.

CONCLUSION

Virality is a word-of-mouth diffusion process wherein a message is actively forwarded from person to person, within and between multiple weakly linked personal networks, and is marked by a period of exponential growth in the number of people who are exposed to the message.

Kolaveri Di is a perfect case of viral marketing, which has created a huge difference in the world of publicity."

The simplicity, emotional connect, superb beats, universal presence and addictiveness are the reason for the virality of the song.

On Twitter, "Kolaveri Di" recorded 179 tweets on the day the video was released officially by Sony music India. (16 Nov 2011). The rate of tweets for Kolaveri increased by nearly 200% everyday after that and recorded a highest of 14,907 tweets on 24 Nov 2011. Facebook accounts for nearly 80% of social media mentions for 'Kolaveri Di', followed by Twitter and YouTube.

People of all ages seem to be discussing about the Kolaveri song on the online space.

Viral Marketing Communication takes place within social spheres and passed on from peer-to-peer, thereby gaining a certain level of trust.

Also with ever improving technology the scope and success of viral marketing has also enhanced. Statistics reveals that nearly two thirds of the world's Internet population now visits a social network or blog site weekly. Also a latest study from Pew Internet reflects that social network are becoming a popular source of information and almost 89% of people forward news, events, and vendor specific information to people in their network.

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ISBN: 978-93-5051-662-1

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"Global Economic Crisis: Boon and Bane to IT Industry"

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ABSTRACT

The global financial crisis, brewing for a while, really started to show its effects in the middle of 2007 and into 2008. The global economic slowdown has its epicenter in the United States (US) but the effects are being witnessed in all major economies of the world. It can however, be argued nonetheless that because the global economic meltdown coincided with the age of globalization that emphasis interconnectedness and breaking down of all market barriers, all the economies whether developed or developing were not excluded to the devastating effects since globalization in the first instance is not a friend to any economy. The global economic slowdown had made the development scenario as a roller coaster ride for the world economies. The global IT industry has matured over the years and has emerged to be a chief contributor to the global economic growth with a steady rise in revenues as witnessed in the past few years.

Global IT industry has experienced a slump with the recessions in the US and many industrial countries with the level of impact varying by country /market and industry. Broadly defined, a recession is a downturn in a nation's economic activity. The consequences typically include increased unemployment, decreased consumer and business spending, and declining stock prices. The Slump down situation however looks fogged out, with no clear visibility. Some hitches faced by the IT industry are; Uncertainties high in terms of sales cycles, Price cut outs to hit margins, and revenue visibility fogged out. This had proved to be a curse of Global Economic meltdown.

But at the same time 2008 was a transformational year for the Information Technology sector, as the number of contracts; the total value and the annualized contract values exceeded that of the preceding year and it began to re-engineer itself to face the challenges presented by a macroeconomic environment which witnessed substantial volatility in commodity prices, inflation, and decline in GDP rates. In this way slow down in global economy was a boon in some way for IT sector as it has developed itself to face the challenges and grab the opportunities available.

This paper interrogates the implications of the global economic meltdown within the framework of a consolidated IT Industry. It also examines the effects of global economic crisis on the global IT industry. The paper provides an overview of origin of economic crisis, recession its drastic effects on the employment scenario of the world economies and its recovery phase.

This research is descriptive and based on empirical data. The study is based on the empirical secondary data collected from journals magazines and the researchers conducted earlier. The data extracted from the various sources has been used to drawn informative conclusions in context of effect of Economic crisis on IT industry.

Keywords: Global Crisis, economic development, Globalization, Economic meltdown, re-engineer and financial crunch.

INTRODUCTION

The late-2000s financial crisis (often called the global recession, global financial crisis or the credit crunch) is considered by many economists to be the worst financial crisis since the Great Depression of the 1930s. It resulted in the collapse of large financial institutions, the bailout of banks by national governments and downturns in stock markets around the world. In many areas, the housing market also suffered, resulting in numerous evictions, foreclosures and prolonged unemployment. It contributed to the failure of key businesses, declines in consumer wealth estimated in the trillions of U.S. dollars, and a significant decline in economic activity, leading to a severe global economic recession in 2008.

The global financial crisis, brewing for a while, really started to show its effects in the middle of 2007 and into 2008. Around the world stock markets have fallen, large financial institutions have collapsed or been bought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems. A collapse of the US sub-prime mortgage market and the reversal of the housing boom in other industrialized economies have had a ripple effect around the world. Furthermore, other weaknesses in the global financial system have surfaced.

For the developing world, the rise in food prices as well as the knock-on effects from the financial instability and uncertainty in industrialized nations is having a compounding effect. High fuel costs, soaring commodity prices together with fears of global recession are worrying many developing country analysts. Almost all the industries of the world economy faced the challenges of global economic crisis but the most hampered was the IT industry, because of the recession as a result of financial crisis.

The current global economic slowdown has its epicenter in the United States (US) but the contagion is being witnessed in all major economies of the world. Several countries are experiencing rapid contraction in their Global Domestic Product, rising unemployment levels and an overall slowdown in the pace of investment activity. What started as a shock in the financial markets has spread to all sectors of the world economy and the exact depth and breadth of the impact is still unclear. India's economy has been fuelled by the growth in the technology sector in the recent past. A large part of this growth is dependent on the "outsourcing" or"off shoring" of key business processes and software development activity (and related services) by large global corporations and other organizations. Hence, the global slowdown has also affected the business climate within India and the growth rate of the Information Technology (IT) and Information Technology Enabled Services (ITES) sector is also experiencing the tremors of the global recession. The Indian IT software and services industry which has seen a Compounded Annual Growth Rate (CAGR) of around 30% over the last three or four years is now projected to grow at 20%. Indian IT sector's derives approximately 61% revenues from the US based clients. The revenue contribution from US clients to the top five Indian IT companies (who account for 46% of the IT industry's revenues) is approximately 58%. Hence, the impact of the slowdown in the US is likely to have a deep impact on the prospects of the Indian IT sector. Moreover, about 41% of the IT industry revenues in India are estimated to be from financial services. Since this sector has been affected most severely in the current climate, the impact on Indian companies catering to this sector has been (and will continue to be) more acute. The margins are prone to be challenged on account of the slowing growth in the US and European Banking and Financial Services Industry (BFSI) sectors.

RESEARCH METHODOLOGY

Objectives

1. To study the effects of global economic crisis on the global IT industry.
2. To find out the measures of global economic crisis which lead to crisis in It industry.
3. To interrogates the implications of the global economic meltdown within the framework of a consolidated IT Industry.
4. The paper provides an overview of origin of economic crisis, recession its drastic effects on the employment scenario of the world economies and its recovery phase.

Limitation

As the research is based empirical study the findings of the research may limit and based on the observation of the earlier research. Also this study is focused on IT industry only and may not applicable to all the sectors having the impact of economic crisis and recession.

Research Approach

The research is based on empirical studies. The empirical approach relies on direct and indirect observation or experience.

Data Collection

The data was collected by Secondary data sources, i.e. newspaper, magazines and journals.

Significance

This research will prove to be helpful for further reference to IT industry to the data extracted from the various sources has been used to drawn informative conclusions in context of effect of Economic crisis on IT industry.

DATA ANALYSIS

Origin of Global Economic Crisis: Genesis and Causes

The global financial meltdown began in August 2007 when the growing payment mortgage deficit, put million of debt obligation in danger of which was guaranteed and sold to investment banks. The crisis has it root in a banking practice called sub-prime lending or sub-prime mortgage lending in the United States. Sub-prime mortgage is granted to borrowers whose credit history is not sufficient to get conventional mortgages lending or who do not qualify for market interest rate, owing to various risk factors such as income level, size of the down payment made, credit history and employment status. This Subprime mortgage lending is designed to make these categories of individuals own a house at an affordable rate. These mortgages are packed by banks into Mortgage Backed Securities (MBS) and sold to two financial institutions created by US government namely; Federal National Mortgage Association and Federal Home Loan Mortgage Corporations; so as to free banks fund for lending to more prospective homeowners.

These two government institutions in turn repackage the loans and sell them to individual investors, financial institutions like banks, pension funds, hedge funds, around the world. Between 1994-2004, the US housing market experienced boom, of which Sub-prime borrowing was a major contributor to an increase in home ownership rates and demand for housing. Home ownership rate increased from 64% in 1994 to a peak of 69.2% in 2004.

Global Scenario and the Uncertainties of Global Financial Crises

As 2008 ended, predictions of where the world economy is heading turned dire. The World Bank projected world output to grow by a mere 0.9% in 2009 (as compared with 2.5% in 2008 and a high of 4% in 2006) and world trade to contract by a significant 2.1% (compared to positive rates of growth of 6.2% in 2008 and a high of 9.8% in 2006). Asia Pac is likely to witness a sharper fall in the growth rate, i.e. from 13.4% in 2007 to 5.5% in 2010E in comparison to the world growth estimated at 6.3% in 2010E from the 2007 figures of 9.7%. The overall impact of the global financial crisis has been felt in Asia / Pacific in terms of the local stock exchanges and currency exchange rates and lower GDP growth forecasts for 2009.

Impact on Stock Market

- The year 2008 saw the credit crisis push several major economies, with banks particularly being badly hit- many requiring government bail-outs. Shanghai which had soared more than 300% in 2006 and 2007 had its share values wiped nearly by $3 trillion (£2.1trillion).
- Japanese shares also suffered their biggest yearly decline, with the Nikkei dropping 42% as world's second-largest economy slid into recession.
- India's main index sensex plunged nearly 50% during the year. All global markets saw record falls in 2008 as the financial turmoil and economic slowdown ended the stock market boom.
- All stock exchanges across Asia / Pacific have been directly impacted in a significant way, with an average loss of 45% from November 2007 through October 2008.

Impact on Exchange Rates

- Currency exchange rates have been affected, but on a more-isolated basis. Australia, China, New Zealand and Singapore are experiencing drops in their currency against the U.S. dollar.
- In addition, India has seen its currency increase substantially and later fall against the U.S. dollar.
- As a result, there is an assumption that there will be some impact on IT spending across Asia/ Pacific due to the increase in the cost tied to the technology spending.

Scenario of Global it Industry

Growth of global IT economy the global IT industry has matured over the years and has emerged to be a chief contributor to the global economic growth. The global IT sector, constituted by the software and services, Information Technology Enabled Services (ITES) and the hardware segments, has been on a gradual growth trajectory with a steady rise in revenues as witnessed in the past few years. 2008 was a strong year as the number of contracts; the total value and the annualized contract values exceeded that of the preceding year. Among all users above average growth was witnessed in the government, healthcare and the manufacturing segments.

The global software and services industry touched USD 967 billion, recording an above average growth of 6.3% over the past year. Worldwide ITES grew by 12%, the highest among all technology related segments. Hardware spend is estimated to have grown by 4% from USD 570 billion to nearly USD 594 billion in 2008. Currently, the global IT industry is experiencing a slump with the recessions in the US and many industrial countries with the level of impact varying by country / market and industry. Forrester in its recent report has predicted that the US IT market will dip to 1.6% in 2009, down from 4.1% growth in 2008 (see figure below). The Asia Pacific region, using a weighted average1 of local currencies, will do a bit better in 2009, with 3.1% growth. The Western and Central Europe markets will have growth in local currency that is closer to 1%. By 2010, the US market will shift to 7.3% growth, not far behind the 9.5% growth in the other Americas, well ahead of the 5.5% growth in Asia Pacific and 5.3% growth in Western and Central Europe.

Global Scenario - It Purchases

As it stands, the US market accounts for majority of the global purchases of IT goods and services. The US market which represented 37% of the global market for IT goods and services in 2005 had shrunk to 33% share in 2008. Western and Central Europe would see its share of global IT purchases fluctuate between 26% and 28% between 2008 to 2010; Eastern Europe, the Middle East, and Africa and Asia Pacific are expected to hold their share positions.

The global IT purchases are expected to plummet as strong dollar would hurt dollar-denominated growth rates for IT purchases going ahead. The British pound was 23% lower in Q4 2008 from the year-ago level, the Indian rupee is down 20%, the Canadian dollar is 19% weaker, and the euro is down 9%. Only the Japanese yen and the Chinese yuan renminbi have gained in value against the US dollar. While these currency swings are likely to reverse in 2009 as the financial crisis fades, the dollar is still likely to remain above 2008 levels for most of the year. That will dampen global IT market growth measured in dollars and hurt the reported revenues of US vendors like Accenture, Hewlett-Packard (HP), and IBM with large overseas operations. With global tech market in US dollars likely to shrink.

Impact of the Recession on It Sector of the Global Economy

The current global economic slowdown has made it a roller coaster ride for the world economies. Developing countries are experiencing a deferred impact due to the "domino effect" of the current crisis. India being one of the world's fastest-growing tech markets, thriving mainly on exports is also experiencing the tremors of the global economic crisis. IT spending as a percentage of revenue normally varies from 3.5% in manufacturing companies, 5-6% in global retail chains to about 9.5% in the banking industry. These could see marginal decline as companies will tend to hold spends on new IT deployments.

- A recent study by Forrester reveals that 43% of Western companies are cutting back their IT spend and nearly 30% are scrutinizing IT projects for better returns.
- The IT services and outsourcing market is currently undergoing a structural transformation that will have a profound effect on how IT service providers will have to conduct their business.
- Approximately 61%5 of the Indian IT export's revenues are from US clients. If we consider the top five India players who account for 46% of the IT industry's revenues, the revenue contribution from US clients is approximately 58% which has reduced drastically.
- The risks of operating margins are partly offset by the fact that Indian IT services retain some flexibility in terms of their cost model. As the impact of the slowdown becomes more severe, companies will increasingly look at cutting costs in the form of overheads and reduction in variable pay/annual increments. The industry has also been reducing its hiring, as well as changing the hiring profile to ensure that operating costs are in control.

This clearly indicates the adverse effect that the US recession is likely to have on the global IT sector. The industry has been constantly seeking to diversify its markets to offset its reliance on the US, which remains the largest outlet for India's software sector.

From Global Financial Crisis to Global Recession

The year 2008 witnessed the emergence of the most serious financial crisis to hit the U.S. and the greater global economy since the 1930s — a crisis that has already begun to precipitate a major recession in the U.S. in 2008 and, in turn, raising the odds for a wider global downturn in 2009.

Perhaps more than any single contributory factor, the rapid and extreme growth of income inequality during the decade was eventually responsible for the ultimate financial implosion of 1929 and the consequent depression.

The foregoing process culminated in a stock market crash, once the cracks in the real economy began to appear and the speculative boom quickly turned to the bust of October 1929. As in all such similar speculative booms and busts, the financial crisis of 1929 in turn exacerbated and accelerated the already declining real economy by freezing up credit for investment, ensuring further corporate defaults, massive job losses, and subsequent decline. Thus, while the increasingly speculative activity was not the sole cause of the crisis, it was a critical and central development provoking the crash and the depression that followed. As in the 1920s, in the last decade the U.S. has been lurching from one speculative bubble to the next. These include:

- The Long Term Capital Management (LTCM) hedge fund bailout of 1998
- The Asian debt crisis of 1998 (at the center of which were U.S. money center banks)
- The dot-com technology asset bubble of 1999-2000

- The recent subprime mortgage bust (the foundations for which were laid in 2003-04)
- The recent rapid spread of the subprime crisis in 2007-2008 to other capital markets in the U.S.

The series of speculative bubbles from 1998-2008 in each case were temporarily contained by an unprecedented expansionary monetary policy engineered by the U.S. Federal Reserve under Alan Greenspan. The Greenspan Fed thus contributed to the series of bubbles with money injections designed to stave off the spread of liquidity crises and credit crunches. The temporary fixes did not solve the problem, but postponed the crisis for the short term. The result has been containment each time that has bottled up pressures, which then emerged once again with subsequent greater effect.

While Federal Reserve policies have thus enabled the speculative flames, the rapid growth of income inequality since 2000 provided the kindling.

In the past decade U.S. finance capital has been unleashed, as it once was in the 1920s, to do whatever it wishes and to push the speculative investing envelop as far and in whatever direction it pleases. It is therefore no coincidence that since the late 1990s the U.S. economy has veered headlong from one financial crisis to another with virtually no breathing space in between. We are now beginning to see the consequences of this concurrence of total financial deregulation, unchecked financial restructuring, accelerating income inequality, and accommodative government monetary policy which is now yielding even greater financial crisis, U.S. recession, and a threat of global instability.

In 1998 the total international volume of securitized offerings amounted to less than $100 billion. By 2003 it had risen only to $200 billion, more than $500 billion in 2005, and exceeded $1 trillion in 2006.

Bursting The Subprime-Cdo Bubble

Business press pundits repeatedly query about why so many subprime mortgages were issued to home buyers who clearly could not qualify for mortgage loans on any reasonable criteria or would be unable to make payments once interest rates inevitably rose to normal levels. What the pundits don't understand is that, given the increasing trend over time toward a greater relative mix of speculative to total investment arrangements in the capitalist economy, it is quantity, not quality, and of investment opportunity that takes precedence. Since 2003 the practice of banks had been to encourage mortgage loan companies to produce more loans regardless of the quality. Mortgage loan companies in turn encouraged real estate brokers to deliver more loans without consideration of quality. And real estate brokers did whatever was necessary to close the deal with home buyers.

No matter if the total volume of mortgage loans by 2005-06 were more subprime than not. The quantity of loans, not their quality now mattered most. And quantity was only part of the new profit model. Finance profitability was becoming less and less dependent on the issuance of loans per se, but increasingly on derivatives and their supporting institutions. By 2005 more than $635 billion of subprime loans were issued. In 2006 the amount was another $600 billion and the cumulative total by 2007 was more than $1 trillion.

By mid-2006 it had become clear that the subprime mortgage market was in freefall. Home buyers with subprime mortgages were now defaulting on payments at record rates and foreclosures were beginning to rise. By late summer 2007 it was estimated that there would be two to three million potential foreclosures over the next few years.

By late 2007 various estimates place the value of expected losses from the subprime market collapse from Goldman Sachs's low of $211 billion and the OECD's estimate of $300 billion to estimated losses—based on the ABX Index, the official measure of subprime mortgage securities' value—at approximately $400 billion. In stark contrast to these estimates the losses admitted by the major banks as of year end 2007 amounted to only a paltry $60 billion. More, indeed, much more in terms of bank losses and bank write-downs are yet to come in 2008.

But subprime losses and write-downs on bank balance sheets were only part of the bigger picture.

Global Recession & it Industry

The current global economic slowdown has made it a roller coaster ride for the world economies. Asia/ Pacific are experiencing a deferred impact due to the "domino effect" of the current crisis. With the expectations of a sluggish GDP growth and consequent reduction in IT spending, countries / markets which have a higher dependency on the export markets are expected to be affected more than other countries / markets with stronger domestic demand. India being one of the world's fastest-growing tech markets, thriving mainly on exports is also experiencing the tremors of the global economic crisis. IT spending as a percentage of revenue normally varies from 3.5% in manufacturing companies, 5-6% in global retail chains to about 9.5% in the banking industry. These could see marginal decline as companies will tend to hold spends on new IT deployments.

A recent study by Forrester reveals that

- 43% of Western companies are cutting back their IT spend and nearly 30% are scrutinizing IT projects for better returns. Some of this can lead to off shoring, but the impact of overall reduction in discretionary IT spends, including offshore work, cannot be denied
- The slowing U.S. economy has seen 70% of firms negotiating lower rates with suppliers and nearly 60% cutting back on contractors. With budgets squeezed, just over 40% of companies plan to increase their use of offshore vendors
- The IT services and outsourcing market is currently undergoing a structural transformation that will have a profound effect on how IT service providers will have to conduct their business
- Customers have started to reduce project scope and / or postpone new development. However, they are also trying to move more work to lower cost offsite locations, which could increase IT budgets towards tangible cost saving measures.

Furthermore, whilst discretionary expenditures are being reduced, ongoing projects will likely continue, at least in the near term, especially those which are in the more advanced stages of progress. Fitch expects IT services companies to report marginally positive revenue growth (in dollar terms) over 2009.

With decisions on IT budgets being deferred and sales cycles having elongated from 3-6 months to 6-9 months, companies are seeing a significant drop in client additions. Moreover, the number of targeted large deals has more or less dried up. According to TPI4, mega deals have fallen to levels lower than those seen in 2001.

- **Infosys:** The revenues from BFSI that were at 37% in June 2003 have stayed more or less unchanged as a percentage of total revenues. In the December 2007 quarter, Infosys got close to 37% of its revenues from BFSI. This slipped to 34% of revenues in the March 2008 quarter. In the quarter ending December 2008, BFSI showed a sequential growth of 4% in volume. Infosys also accounts for almost 35.7% share from BFSI and 62% share from America while Wipro accounts for 25% and 63% respectively and will be severely hit.
- **Wipro:** India's third-biggest software exporter, and Cognizant, ranked sixth, have seen revenue from the key Banking, Financial Services and Insurance (BFSI) vertical rise by about a fifth between Oct-Dec 2007and July-Sept 2008.
- April-June 2008, Cognizant recorded the highest growth from financial services vertical among the offshore peers. This was mainly due to the type of financial services clients in the portfolio and the multiple operating levels.
- HCL Technologies could possibly be the least hit because of its lower exposure to financial services clients compared to its peers.
- Tata Consultancy Services, for example, earned 42% of its revenue in the second. Tata Consultancy Services is likely to be worse off than its peers because of its significant exposure to Merrill Lynch. Merrill is also a significant client for Satyam Computer Services and is evident

from the July-September 2008 results which recorded a net profit of ` 1,271 crore (` 1271 crore) up only 1.5 per cent as compared to corresponding period a year ago.

Impacts on Large Businesses

As sales revenues and profits decline, the manufacturer has cut back on hiring new employees, or freeze hiring entirely. In an effort to cut costs and improve the bottom line, the manufacturer may stop buying new equipment, curtail research and development and stop new product rollouts (a factor in the growth of revenue and market share). Expenditures for marketing and advertising may also be reduced. These cost-cutting efforts have made an impact on other businesses, both big and small, which provide the goods and services used by the big manufacturer.

Cuts to Quality of Goods and Services

Secondary aspects of the goods and services produced by the recession-impacted manufacturer have also suffered. In an attempt to further cut costs to improve its bottom line, the company has compromised the quality, and thus the desirability, of its products. This has manifested itself in a variety of ways and is a common reaction of many big businesses in a steep recession.

Airlines, for example, have lowered maintenance standards. They have installed more seats per plane, further cramping the already squeezed-in passenger. Routes to marginally profitable or money-losing destinations may be cut, inconveniencing customers and damaging the economies of the cancelled destinations.

Reduced Consumer Access

As firms impacted by the recession spend less money on advertising and marketing, big advertising agencies which bill millions of dollars per year will feel the squeeze. In turn, the decline in advertising expenditures have whittled away at the bottom lines of giant media companies in every division, be it print, broadcast or online.

THE OTHER SIDE OF THE COIN (GLOBAL RECESSION)

Recessions Don't Last Forever

Recessions come and go and some are more severe and last longer than others. But history shows that recessions invariably end, and when they do, an economic recovery follows.

Situation has fogged out

2008 was a transformational year for the Information Technology-Information Technology Enabled Services (IT-ITES) sector, as it began to re-engineer itself to face the challenges presented by a macroeconomic environment which witnessed substantial volatility in commodity prices, inflation, and decline in GDP rates, cross-currency movement, finally culminating in the economic downturn.

CONCLUSION

The current situation however looks fogged out, with no clear visibility. Some hitches faced by the IT industry are;

- High Uncertainties: Churn in client base, elongated sales cycles and headwinds from a harsh currency environment have rendered high uncertainties for IT companies.
- Price cuts to hit margins: With volumes drying up, companies cut prices to attract volumes.
- Revenue visibility fogged out: IT companies normally have a one year revenue visibility of greater than 60%. However, with an already stressed client base, given the prevailing tough environment, revenue visibility has fogged out.

- Uncertainties weigh on valuations: The valuations factor had rapidly deteriorated in crucial environment and the same is expected to remain depressed until companies improve revenue and volume growth.
- The boundary between software and IT services business models are blurring, leading to each encroaching on the other's space.

Despite the foreboding financial crisis, the opportunities are massive. Making the growth vs. profitability trade-off early on during the slowdown is just one of them. Profitability levers are still available if growth is sacrificed where required, and managed well.

To conclude, we are tempted to use a popular aphorism; the Chinese character for "Crisis" represents two symbols "Danger" and "Opportunity". The choice is ours.

SUGGESTION

Powerful forces are driving change in the IT services market, including

- According to the current tough economic conditions companies can look towards to undertake outsourcing as primarily a cost-cutting initiative.
- Cloud computing and SaaS paradigms have redefining how computing resources can be used as parameter to achieve business growth and development. So they can be adopted.

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ISBN: 978-93-5051-662-1

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E-Choupal — Empowering Indian Farmers and Economic Growth

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ABSTRACT

The agriculture industry is imperative in India. The country ranks second worldwide in its farming output, one of the key indicators of domestic consumption is agricultural growth. Agriculture and allied activities contribute around 20% of GDP and feeds more than 58% population. Now in the recent economic crisis when we started looking inward, which was right in place earlier too, for overall growth, the emerging concern is the growth of Agriculture which defines consumption pattern of India. During tenth plan (2002 to 2007) agriculture grew by merely 2.3% against 7.6% of overall GDP growth rate.

The e-Choupal system lets farmers be more lenient with their choices, gives them a higher profit margin on their crops, and access to information that improves their productivity. By providing a more transparent process and empowering local people as key nodes in the system ITC increases trust and fairness. The increased efficiencies and potential for improving crop quality contribute to making Indian agriculture more competitive. The paper is all about how E-choupal is empowering both Indian farmers as well as the economic growth. As rightly said that Agriculture is vital to India. The e-Choupal model demonstrates that a large corporation can play a major role in recognizing markets and increasing the efficiency of an agricultural system, to benefit farmers and rural communities as well as shareholders.

E-Choupal has helped the farmers to improve their productivity and get better prices, whereas ITC has benefited by better sourcing of raw materials and building a backbone to market the end products which is vital for the FMCG companies like ITC.

The objective of this paper is how E-Choupal is going to contribute to the overall GDP of the Country. The basic formula for calculating the GDP is:

Y = C + I + E + G
Where
Y = GDP
C = Consumer Spending
I = Investment made by industry
E = Excess of Exports over Imports
G = Government Spending

The main component is the somewhat mysterious quantity "I," or investment made by industry. However, this quantity is mysterious only because investment does not have its ordinary meaning. When calculating the GDP, investment does NOT mean what we normally think of in the case of individuals. When calculating the GDP, investment means the purchases made by industry in new productive facilities, or, the

process of "buying new capital and putting it to use”. A powerful illustration of corporate strategy linking business purpose to larger societal purpose, E-Choupal leverages the Internet to empower small and marginal farmers – who constitute a majority of the 75% of the population below the poverty line. E-Choupal enabled economic capacity to proliferate at the base of the rural economy. By linking knowledge and technology transfer to the creation of economic and social capacity, ITC has brought a new dynamic to rural development.

The increased efficiencies and potential for improving crop quality contribute to making Indian agriculture more competitive. Some Sanchalaks track futures prices on the Chicago Board of Trade as well as local Mandi prices, and village children have used the computers for schoolwork, games, and to obtain and print out their academic test results. The result is a significant step toward rural development and economic development.

Keywords: E-Choupal, Economic Growth, Rural Development, Indian Farmer, GDP.

INTRODUCTION

In recent years, rural markets of India have acquired significance, as the overall growth of the Indian economy has resulted into substantial increase in the purchasing power of the rural communities. On account of green revolution, the rural areas are consuming a large quantity of industrial and urban manufactured products. In this context, a special marketing strategy, namely, rural marketing has emerged. But often, rural marketing is confused with agricultural marketing – the latter denotes marketing of produce of the rural areas to the urban consumers or industrial consumers, whereas rural marketing involves delivering manufactured or processed inputs or services to rural producers or consumers.

ITC is one of India's largest and oldest business conglomerates, with business interests in hotels, cigarettes and tobacco, consumer goods, agricultural trading etc. ITC's International Business Division (IBD) is involved in providing a supply chain for India’s agricultural produce, through exports or otherwise. When ITC made its foray into agribusiness, it realized that there were numerous constraints, such as innumerable intermediaries, poor infrastructure, lack of modern agricultural know-how etc, which plagued Indian agriculture. As a solution to all these problems, ITC launched the e-Choupal initiative.

While making money through smoking the company has effectively managed to win the hearts of rural India through its well designed *'e-Choupal'* by technologically empowering the farmers. This strategy is a perfect blend of *business process* and *social context* which has been able to leverage from both ends of the supply chain very effectively. ITC’s *'e-Choupal'* initiative is enabling Indian agriculture significantly enhance its competitiveness by empowering Indian farmers through the power of the Internet. This transformational strategy has put to context the otherwise “injurious to health “manufacturer as a socially relevant and valuable company which able to sustain and survive through diversification, yet maintain about 60 percent of its revenue sources from cigarette business. It is nothing but explicit expressions how corporate have felt the need to be socially relevant to survive in the modern world. ITC has envisioned being able to ‘'to sustain its position as one of India's most valuable corporation through world-class performance, creating growing value for the Indian economy and the Company's stakeholders.” This is the statement of commitment in the area of economic performance as it is encapsulated in its Vision statement. The company has initiated an e-Choupal effort that places computers with Internet access in rural farming villages; the e-Choupals serve as both a social gathering place for exchange of information (choupal means gathering place in Hindi) and an e-commerce hub. What began as an effort to re-engineer the procurement process for soy, tobacco, wheat, shrimp, and other cropping systems in rural India has also created a highly profitable distribution and product design channel for the company — an e-commerce platform that is also a low-cost fulfillment system focused on the needs of rural India. The e-Choupal system has also catalyzed rural transformation that is helping to alleviate rural isolation, create more transparency for farmers, and improve their productivity and incomes. This case analyzes the e-Choupal initiative for soy; efforts in other cropping systems (coffee, wheat, and shrimp aquaculture), while different in detail, reflect the same general approach.

WHAT IS E-CHOUPAL?

Choupal in Hindi means a gathering place. Taking this gathering place to the virtual world, ITC introduced the e-Choupal initiative in the year 2000. This e-revolution of rural India began with the soybean farmers of the villages in Madhya Pradesh region but has since expanded to nearly 40,000 villages across India and serves nearly 4 million farmers today.

The modus operandi of e-Choupal is simple. ITC sets up kiosks in villages, which typically have a computer with an internet connection. One of the farmers in the village is trained to use the computer. He will be responsible for helping the other farmers in using the computer. Information about advanced farming techniques, market demands, weather forecast and current market prices of agricultural produce, can be obtained by the farmers through the kiosk. Access to an e-Choupal kiosk is free of cost. This information helps the farmers grow crops which will be in demand and also which suit the weather forecast of that particular year. It also helps them get a fair price for their produce, which wouldn't have been possible otherwise due to intermediaries.

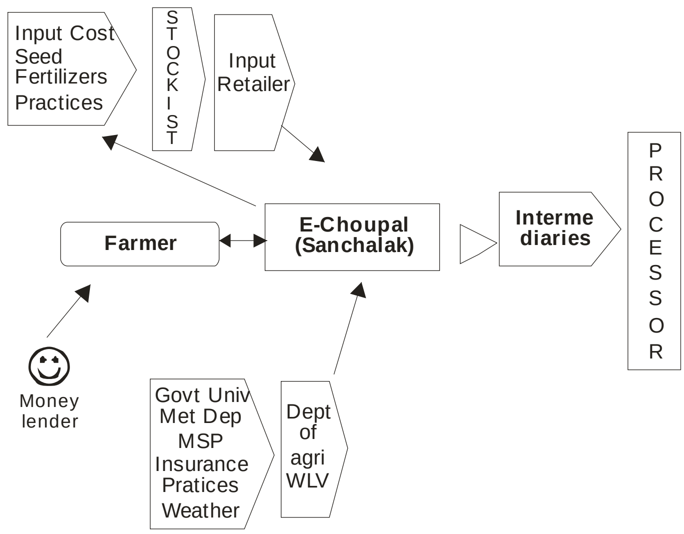
IMPLEMENTATION OF E-CHOUPAL

In mature agricultural economies such as the United States, farmers benefit greatly from easy access to market information and vertical market integration. However, the agriculture landscape in India is characterized by fragmented farms, weak infrastructure and the involvement of numerous intermediaries. In this system, crops are sold by rural farmers with small holdings to traders, who act as purchasing agents for corporate buyers at a local, government-mandated marketplace called a *mandi*. Due to the lack of market information, rural Indian farmers have only an approximate idea of price trends and have to accept whatever the price offered them by the traders on the day that they bring their crops to the *mandi*. As a result, traders are well positioned to exploit both farmers and buyers through practices that sustain system-wide inefficiencies.

Typically poor and often illiterate, rural Indian farmers generally have very limited access to information and education regarding improved farming techniques, that could enhance their yield. Farmers also typically do not have ready access to quality inputs, like sowing seeds, herbicides and pesticides, or to critical information such as accurate weather forecasts that could help them improve the quality of their crops. Such inefficiencies drastically increased transaction costs and slashed potential profits for the rural Indian farmers.

Under the e-Choupal (which means "village square" or "gathering place" in Hindi) project, Internet centers are set up in rural Indian farming villages to provide farmers of soybeans, wheat, coffee, and shrimp with easy access to real-time information and the Internet. These real-time prices are collated from the *mandi* via an arrangement with ITC Limited and are provided on ITC Limited's e-Choupal portal. The real-time market prices for wholesale products enable poor Indian farmers to better negotiate prices, and thus get the most out of their crops. The e-Choupal portal also provides the rural agricultural communities with information in their respective local languages on weather forecasts, education on improved farm practices and risk management, and as well as knowledge and purchases of better quality farm inputs. Through the Internet, farmers can even share best practices and consult with an agronomist by e-mail to seek assistance for problems associated with their crops. This ready access to localized, relevant information and resources greatly helps poor, rural Indian farmers to improve the quality of their crops and thus realize a better price for their efforts.

Countries have started to invest in ICT because they know that the sector can have a substantial positive impact on social and economic sustainability. Investing in ICT is a key driver of economic development for emerging and developed markets alike.



E-Choupal, a New Business Model

The project e-Choupal is ITC's unique click & mortar initiative e-Choupal is an ICT platform for carrying out trade at a number of locations. In this, ITC sets up a back-up physical service support at the village level, called Choupal, through Sanchalak: a lead farmer, who acts as the interface between computer and the farmer. ITC accumulates information regarding weather, modern farming practices, and market prices from sources like Meteorological Department, Agri-universities, mandis (regional market) etc., and upload all information on to e-Choupal web site. All information is customized according to local farmer's requirements and provided into the local language through computer set up by ITC in Sanchalak's house. Sanchalak access this information and facilitates its dissemination to farmers. Information regarding weather and scientific farming helps farmers to select the right crop and improve the productivity of their farms. Availability of market information helps farmers to become market oriented.

They know what price ITC is quoting and the price prevalent in the local market, thereby helping better price realization for farmers. If farmer decides to sell to ITC, Sanchalak works as the aggregator of small farmers produce to sell them to ITC. Sanchalak also aggregates farmers input purchase orders for various items like seeds, pesticides and places them directly with the suppliers through internet and facilitate supply of high quality farm inputs as well as purchase of farm produce at farmer's doorstep with the help of intermediaries as shown in Fig.

E-CHOUPAL — EMPOWERING FARMERS AND ECONOMIC GROWTH

E-Choupal was conceived to tackle the challenges posed by the unique features of Indian agriculture, characterized by fragmented farms, weak infrastructure and the involvement of numerous intermediaries. The intermediaries were, in fact, the biggest concern of the archaic supply chain of the country's agricultural sector because they often deprived farmers of correct market prices in order to get a bigger margin for themselves.

In addition to the farmers only using the e-Choupal there is also a host farmer, called a sanchalak, who acquires some operating costs and is obligated to serve the entire community; the sanchalak benefits from increased esteem in the community and a commission paid him for all e-Choupal transactions. The farmers can use the Internet kiosks for daily access to closing prices on local mandis, as well as to track global price trends or find information about the weather and new farming techniques.

The rural farmers can also use the e-Choupal to order seed, fertilizer, and other farming products such as consumer goods from ITC or its partners, at prices lower than those available from village traders. When it is time to harvest the crops, ITC offers to buy the crop directly from any farmer at the previous day's closing price and then the farmer transports his crop to an ITC processing center known as Choupal Saagars. Choupal Saagars are alternatives to the traditional mandis, catering to about 40 e-Choupals and are all within tractor driving distances. The crop is then weighed electronically and assessed for quality, and the farmer is paid for the crop along with a transport fee. Through this new process, farmers benefit from a more accurate weighing, quicker processing, and immediate payment. Further, the access to a wide range of information, including precise market price knowledge and market trends, assists them in deciding when, where, and at what price to sell.

Though the e-Choupal system serves as a catalyst for rural transformation, alleviating rural seclusion, cultivating transparency for farmers, and enhancing their productivity and incomes.

The e-Choupal program converged with ITC's corporate social responsibility initiative to act upon objectives to help the community they were working in. Through their e-Choupals, ITC created Supplementary Learning Centers to help with rural India's primary education, empowered women to become part of the global marketplace, and developed a three-tier Choupal Health Care model to cultivate the installation and delivery of both preventative and curative healthcare services. In addition, they also generated a full scale retail marketplace in the Choupal Saagars to the rural population and created financial product marketing for the farmers and their families where ITC offers to sell credit through their network. The Kisan Credit Card, third party loans, and channel credit allowed farmers to establish a better established infrastructure which drove down certain aspects of cost and improved the quality of their crops. Weather insurance, life insurance, along with pension and disability incomes was also established for farmers to have for themselves and their families just in case disaster struck.

The goals that ITC is trying to accomplish are to mitigate the constraints of the agrarian supply chain, reduce poverty, reduce rural isolation, promote education, promote gender equality, promote economic growth, and improve the health of citizens. The Top Ranked Objective for ITC would be improving the quality of life in rural India because it is a combination of all the goals that ITC is trying to accomplish. This TRO also helps ITC in its "Citizen First" mission where country must come before corporation. A major strength of ITC is its e-Choupal network. E-Choupal helps accomplish all the goals of ITC from mitigating the constraints of the agrarian supply chain to promoting education to improving the health of citizens. E-Choupal is also a small weakness that creates more competition in the agriculture industry and displaces the trader commune in India. The political and bureaucratic leaders that allowed e-Choupal to overcome the barriers of the APMC Act are an opportunity that helps achieve the objectives. The willingness that the people have to take advantage of the services provided by the e-Choupal network is an outside factor that helps achieve the objectives. Threats that will hinder the achievement of the objectives are the government, traders lobbying against e-Choupal, rural isolation in general, and the capacity of kiosk managers. ITC's e-Choupal network has given them a competitive edge over any other incumbent marketplaces. E-Choupal establishes a direct channel between the farmer and ITC, takes out the middlemen (commission agents) along with several inefficiencies, helps get farmers more money for their produce in less time, helped farmers adopt modern agricultural practices by offering incentives, safeguards farmers' interests by rewarding them for their product quality, provided info and knowledge of the price of the produce, provided weather forecasts, and latest technological trends in farming. Outside of the agri-business aspect, e-Choupals also provided some social benefits. They promoted education with digital content and virtual training sessions for children to improve their scholastic ability. They promoted gender equality by providing information for the economic empowerment of women. They promoted healthcare by providing inexpensive and accessible quality health services. Choupal processing centres added retail outfits so villagers could shop at their hypermarket. ITC also used the e-Choupal network to disperse credit facilities and insurance policies.

The market-led business enhances the competitiveness and triggers a virtuous cycle of higher productivity, higher incomes, and enlarged capacity for farmer risk management, larger investments and higher quality and productivity. This is the reverse of vicious cycle operating in Indian agriculture. Further, a growth in rural incomes will also unleash the latent demand for industrial goods, which are necessary for the continued growth of the Indian economy. This will create another virtuous cycle propelling the economy into a higher growth. For realization of these goals it is essential that the participation of rural community be ensured.

ITC uses inputs from farmers to create the content for website. Involvement of farmers in content creation helps to easily customize the information as per the local requirements [6]. Farmers at ITC do the focus group discussion to identify the information required by the farmers in village. Layout of website, language of information, contents all are decided on the advice of the farmers. Participation of local farmers ensures provision of adequate and decipherable information to e-choupal, which can be employed into the farming, or pricing of the produce. The increased participation in e-choupal has been due to the creation of win-win situation in which both the firm and

The farmer benefits equally. The farmer gets attracted towards e-choupal due to increased profits, added services that he could get, saving in time, and the ability to use the e-choupal for many transactions. e-choupal operation has been successful. It has reduced the cost of procurement and the cost of transit and the material handling cost. Procurement transaction costs are reduced from the industry standard of 8% (farmer incurs 3% and the processor incurs 5%) to 2% (with farmer saving all his 3%, and the processor – ITC – saving 3%) as shown in Table Below.

Table 1: Conventional Transaction vs. E-choupal costs

Cost Element	**Conventional Market**	**E-Choupal**
Trolley Freight to Mandi	100	Nil
Filling & Weighing Labor	70	Nil
Labor Khadi Karai	50	Nil
Handling Loss	50	Nil
Sub Total	270	Nil
Processor Incurs		
Commission to Agent	100	50
Cost of Gunny Bags	75	Nil
Labor (Stitching & Loading)	35	Nil
Labor at Factory (Unloading)	35	35
Freight to Factory	250	100
Transit Losses	10	Nil
Sub Total	505	185
Grand Total	775	185
As % of Beans Value	8%	2%

The total cost incurred on the initiative so far has been ` 50 Mn (` 35 Mn capital cost towards computers and other hardware at the kiosks as well as central servers + ` 15 Mn revenue expenditure incurred towards portal development, people overhead etc). But ITC has accrued a benefit ` 20 Mn, which is the equivalent of full investment on 40% of the choupals (kiosks). This came from the procurement of 60,000 tonnes of soyabean.

The net savings will come down gradually, because the standard benchmark costs will be lower once competition catches up with some of the new business processes. After factoring in such reduction in savings, and considering the investments in expansion of the number of choupals (which could mean coverage of some villages with lower potential therefore a lower penetration rate), the likely revenue streams have been worked out. The details are shown in

Table 2: Future Revenues

Rupees In Million						
	2001-02	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**Total**
Total Outflows	52.1	123.7	3.9	3.9	3.9	187.5
Total Inflows	15.3	32.5	47.5	60	65	220.3
Tax Add Backs on Depreciation	2.6	5.9	9.3	9.3	9.3	36.4
Net Inflow (outFlow)	-34.2	-85.3	52.9	65.4	70.4	69.2
Cumulative Inflow (Outflow)	-34.2	-119.5	-66.6	-1.2	69.2	

The internal rate of return (IRR) on the Project works out to be 21.55% further; the whole platform is available literally cost free for the rural distribution business, which showed promise of even more significant margins based on the sales done on pilot scale during the current year. This income is not included in the above IRR calculations. Further ITC’s market share in soybean processing industry increased in one year from 8% to 12%, reducing the difference with the market leader (20%). Before echoupal was launched, its market share was a constant 8% throughout the prior five years. Special transactions on the finished products side (export markets for soybean meal), like identity preserved cargo flow and product traceability back to farm stage, though small in volume currently, is facilitating attraction of niche customers. While the normal gross trading margins are about 4% in the soya business, niche sales have the potential to earn up to 10%, given the demand for GMO free & organic products from certain markets. Above all, the knowledge-bundled-sale of farm inputs has contributed to increase in farm yields by over 10% (from 1.1 MT / Ha to over 1.2 MT / Ha on an average), which increased the farmer loyalty towards ITC on one hand, and demonstrated the new business model’s capability to be a unique rural distribution channel with relatively unlimited scope on the other hand.

The countries with the most advanced Systems like E choupal present the highest levels of competitiveness, suggesting that having a country enabled by such system improves the overall performance of its economy in the long run. Beyond encouraging economic growth, the industry is helping to achieve social sustainability by improving the way societies and governments provide education, healthcare, and services to citizens. Additionally, the industry is changing the way people interact with each other, creating longer-term and largely positive changes in a variety of areas.

In fact, investing in such a system like E- Choupal can help countries increase their annual GDP growth by 0.6–0.7 percent on average, on an annual basis, for each increase of 10 percent in household penetration.

The latest version also provides employment opportunities to rural youths and has helped fill 1,200 job openings from 52 companies. But Version 3 has gone beyond just helping rural India to reduce its pressure on land. "e-Choupal's next goal is to try and insulate Indian farmers from the country's still government-supported farm sector".

The e-Choupal system gives farmers more control over their choices, a higher profit margin on their crops, and access to information that improves their productivity. By providing a more transparent process and empowering local people as key nodes in the system, ITC increases trust and fairness. The increased efficiencies and potential for improving crop quality contribute to making Indian agriculture more competitive. Despite difficulties from undependable phone and electric power infrastructure that sometimes limit hours of use, the system also links farmers and their families to the world. Some sanchalaks track futures prices on the Chicago Board of Trade as well as local mandi prices, and village children have used the computers for schoolwork, games, and to obtain and print out their academic test results. The result is a significant step toward rural development.

CONCLUSION

ITC e-Choupal, an innovative strategy which is elaborative and extensive in rural markets so far. Critical factors in the apparent success of the venture are ITCs extensive knowledge of agriculture, the effort of ITC has made to retain many aspects of the existing production system, including retaining the integral importance of local partners, the company's commitment to transparency, and the respect and fairness with which both farmers and local partners are treated. The concepts, which are becoming more important in every market, include color, product attractiveness visibility, and display quality. In addition, availability (meeting local demand by increasing production locally), acceptability (building brand equity), and affordability (pricing higher than local brands, but adapting to local conditions) are the key factors.

e-Choupal has been most successful initiative to wire rural India and to involve the farmers in learning. ITC has envisaged on various plans to replicate the success achieved to other states and expand the services offered to other commodities like spices. ITC has also identified e-Choupal as an important driver for exports, which are targeted at $ 400 million by 2005. e-Choupal has also attracted attention from the renowned academicians, since e-Choupal has managed to innovate the supply-chain, and model applied by ITC has enough potential to be replicated in the under-developed and developing countries

ITC has been successful in making the farmer feel the sense of ownership and enthuse him to generate additional revenue by eliminating middleman. ITC through e-Choupal has bought various accolades such as "Golden Star Trading House" for showing impressive track record in exports of agricultural commodities. Participating farmers have been able to enhance their income and eliminate the delay in getting the payment once the product is sold. It has helped in reducing debt burden of the farmers. The success of e-Choupal has given new lessons to the corporate in the India and abroad. The gains from the novel initiative are manifold to ITC, the farmers and other companies. e-Choupal has helped the farmers to improve their productivity and get better prices, whereas ITC has benefited by better sourcing of raw materials and building a backbone to market the end products which is vital for the FMCG companies like ITC.

This paper of e-choupal helps in identifying the factors that contributed to the success of the ICT platform in many states:

- E-choupal has been one of the best ICT application platforms that has been scaled replicated and sustained. This is due to the fact that it was specifically designed for that specific business.
- The Sanchalaks are selected carefully and they have been able to work as nonpartisan coordinators. Sanchalaks have been able to induce the feeling of involvement. This participative style helped ICT to build trust at the local level. Trust is essential in sustaining relationships at the community level.
- E-choupal was customized and then validated and then expanded to the operational phase. E-choupal has found acceptance in all three businesses they have ventured into. The model of validating and then rolling it out has been an effective way of implementing a new business model.
- E-choupal has provided economic benefits even for the small farmers. Every beneficiary gets benefit and the equitable benefits make the adoption very rapid.
- Intensive training and distributed leadership concept facilitated the acceptance of the platform concept. The empowerment of people through local action and training reduces the disparities. The ability of the choupals to deal with many inputs provides for economies of scope.

E-choupal has been heralded as the attempt at making ICT platforms enhance the market access, by eliminating the use of middlemen. ITC had the vision to conceptualize and implement this procurement cum marketing platform. It is a low cost/multi business model operated by the farmer representative. It has been validated, scaled and sustained for many businesses by ITC. By embarking on this initiative, ITC has shown that ICT platforms can benefit even if the marginal farmers.

The e-Choupal model demonstrates that a large corporation can play a major role in recognizing markets and increasing the efficiency of an agricultural system, while doing so in ways that benefit farmers and rural communities as well as shareholders. The case also shows the key role of information technology—in this case provided and maintained by a corporation, but used by local farmers—in helping bring about transparency, increased access to information, and rural transformation. Critical factors in the apparent success of the venture are ITC's extensive knowledge of agriculture, the effort ITC has made to retain many aspects of the existing production system, including maintenance of local partners, the company's commitment to transparency, and the respect and fairness with which both farmers and local partners are treated.

The world is moving in the direction where the walls are collapsing, allowing all to mingle freely. Similarly all big and small payers have to join hands together to reap the best of the technological advantages and share technologies freely across terrain, beyond all barriers may be cultural, urban/rural, language, social and infrastructure.

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ISBN: 978-93-5051-662-1

16 Manipulations in Financials — A Need or Greed?

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INTRODUCTION

Investment, Consumption and Savings are three distinct but interrelated gears on the basis of which the entire vehicle of economy moves. Even though there are so many other factors, the lead role is being played by the above mentioned three factors. Priorities, preferences, choices, knowledge, risks and uncertainties all change from person to person but the decisions are being made based on some parameters which every individual understands.

Out of the basic factors, investment plays a vital role in rolling the economy as pumping of funds into the economy as a whole is well handled by the investment. Investment decisions are based on many factors wherein Financials have been traditionally and well accepted tools of analysis used for decision making. Financials or Final Accounts are prepared at the end of the prescribed financial year and are reported. This communication of financial statements and related information of a business enterprise to third partied including investors, bankers, shareholders, government is nothing but **'Financial Reporting'.**

Some of the basic questions that get raised at this juncture are:

- Are these Financials reported properly?
- Do they have any reliability?
- Are they manipulated, in case yes, to what extent?
- Are investors misguided by the manipulations?

  And last but not the least,
- Are manipulations in Financials a need or greed?

Financial reporting does not restrict itself to the mere communication of the information through financial statements. Even though financial reporting and financial statements have the common objectives, some information may be better provided by one in comparison with the other. However, both have impact upon each other and there can't be altogether different data. The basic objective of financial reporting is to provide information to varied users in making sound investment decisions. Accounting Standard Board (ASB) of USA also concluded that "Financial Reporting should provide information to present and potential investors and creditors in addition to the other users in making rational investment, credit and other decisions".

While taking a decision for investment, going through the Financials becomes inevitable. However with reference to the Financials, International Accounting Standards Committee has recognized the following qualitative characteristics. Interestingly, manipulations in financials affect all four of them.

(a) Understandability

(b) Relevance

(c) Reliability

(d) Comparability

- Understandability enables users to perceive significance of the information provided in the financials. Benefits of information can be enhanced by increasing the understandability of the information. Understanding here means clear perception and avoiding the wrong interpretation. In this, clear mentioning of the facts, avoidance of misrepresentation of the facts, faithful presentations are all prerequisites.
- Relevance is nothing but information and data closely related with the concept of understandability. All the relevant information must be included and presented. Any irrelevant fact and/or figure would divert the attention as well as misguide the investor. Information should revolve around the purpose for which the information is provided/presented. In short, relevance has got a close tie with the disclosure of only related and required information which as a whole, will serve to the needs and queries of common investors and to some extent, specific investors.
- Reliability assures the user of the quality and accuracy of the data included for analysis. It is that primary quality without which the entire calculation exercise may prove wrong. Users should be made aware of the magnitude of the interpretation of data upon decision making and possible inclusion of errors if any. Limitation of the data if any should be clearly stated. Annual Reports or Financials should be transparent enough to get the reliable data.
- Comparability is perhaps the easiest tool with the help of which investors take decisions. When the available information is tasted in the furnace of understandability, relevance and reliability, comparability is to follow automatically. Unless and until the data available are compared and exchanged against the other data in terms of similarities and differences, the analysis is not complete in any aspect.

A famous story tells that a businessman called shortlisted candidates for an interview for the post of Divisional Manager. He decided to select the person who would give correct answer for the question, “What is 2 + 2?”

An Engineer calculated for the time being and replied, it could be something between 3.98 to 4.02.

The Mathematician replied that with the help of some working notes and a few calculations, he will prove it that 2+2 = 4.

The Logician said that the problem is solvable and he will certainly find some solution to it.

The retired Judge said that in the case law of State Vs. Babaji Company, it was declared that 2+2 is 4.

The Trader asked a question “are you buying or selling?”

Finally the Accountant got up from his chair, confirmed whether anybody is listening to the conversation or not and closed the door. He went to the owner and silently asked him, “I understood the question, tell me how much you would like it to be for 2+2?”

Apart from the main part of the story, the fact remains that profit is such an elastic figure which can be arrived at. Logically speaking, profit should be the balancing figure which has to appear automatically. However, it may be the case that the balancing figure is decided first and then accordingly all the income and expenses are adjusted. This is nothing but the manipulation of the accounting data.

FORENSIC ACCOUNTING – AN EMERGING CONCEPT

Generally, top management does not appreciate frequent and voluminous fluctuations in the earnings and profitability and always want to have steady increase with a smooth curve.

Auditing, Corporate Governance, Risk Management, Forensic Accounting are all the tools with the help of which both Management and Investors would like to ensure the genuineness and authenticity of the Accounting Data.

Accounting and Auditing have been significant activities since the introduction of both these concepts. Accounting is an ancient Art, certainly as old as money even though the Art must have been rudimentary in the beginning. A business house must keep the track of all the entered transactions so that at any moment of time, it can answer the queries like:

(a) What is the result of the activities carried on in the form of expenses incurred and incomes earned, whether a profit or loss?

(b) Where does the firm stand in the market in terms of its financial status and profitability?

Accounting deals with recording, classifying, summarizing and presenting the data for a particular period of time whereas auditing deals with the evaluation of the accounting, persons responsible for accounting, organization and general system. Auditing is a vital part of accounting. Auditing provides a reasonable assurance that the statements are free from material errors. It can't provide a full assurance due to certain practical constraints including time and cost. Traditionally Auditing has been focusing mainly on the financial factors whereas recently auditing has entered certain non-financial aspects like security, information systems and environmental concerns. Over a period of time, nature of auditing has undergone a change. Evaluation of financial and non-financial aspects is done under continuous as well as intermittent basis in the form of Statutory Audit, Internal Audit, Revenue Audit, External Audit, and Interim Audit. The conceptual framework remains the same even though the role and title of auditor varies according to the nature and purpose.

Auditors are not blood hounds but watch dogs is a commonly accepted notion. However, with the lapse of time and with the changing nature, scale, area of operation and increased complexities of the businesses, there is a need to verify the authenticity of the entire Accounting and Auditing system. So far as Indian scenario is concerned, automation has changed the business landscape to the point whereby in India especially in 90s, the volume and speed of business transactions necessitated faster means of generating financial statements and auditing them. This in turn provided momentum to the implementation of task on the basis of authenticity and deadline rather than on compliance.

Forensic Accounting was first time adopted and practiced formally in United Kingdom (UK) with the formation of Bureau of Audit and Investigation for Forensic Accounting in 2002. United States of America immediately joined the movement in the form of Sarbanes Oxley Act in 2002. In India, there has been an ever increasing trend of application of Forensic Accounting Practices. However, no formal legislature is observed in this regard.

Institute of Chartered Accountants of India (ICAI) in association with and consultation of Comptroller and Auditor General of India (C&AG) has insisted the Forensic Accounting as a need of the day. ICAI is already in the issue of a formal Accounting Standard in this regard. In India, Money Laundering Act covers forensic accounting even though there is no specific legislation which in fact is need of the day. Due to referral of IFRS in April 2011, no new Accounting Standards are issued as once the IFRS are joined, subsequent standards issued by ICAI will be in conformity of IFRS. As the forensic accounting is a growing field in detecting financial frauds, the mathematical tools and techniques used are 'Data Mining' (Ref. The Accounting World, ICFAI Journal March 2008) United States of America expects 16% growth in the application of Forensic Accounting in the corporate sector till 2016. (Ref: American Institute of Certified Public Accountants Journal, November 2009).

International service providers like KPMG also have separate cell for Forensic Accounting. KPMG has been operative in this area since 1995 when forensic accounting was not taken that seriously. At present all the leading firms of Chartered Accountants and Certified Public Accountants have their respective and exclusive divisions engaged with the forensic accounting. The main reason being, it was only recently the genuine need of forensic accounting is felt in India. Researcher intends to analyze the data available and check how the corporate world can be self-dependent in the field of forensic accounting as well. Delhi based Lancers Network ltd. Is India's leading institution with corporate investigators engaged in corporate intelligence, risk mitigation, fraud detection as well as litigation support. Increasing corporate failures in India as well as over the world have drawn the attention to the point that accounting and finance professionals have greater responsibilities towards the poor corporate governance, mismanagement and other wrong doings.

Basic foundation of Forensic Accounting does not imply that proficiency and skill sets of Auditors and Accountants started diminishing but overdependence and over reliance were matters of concern. In this scenario, loyalty and integrity of Accountants and Auditors play a major role.

Auditors have been the watch dogs from the emergence of the concept of auditing. However, the present situation demands to have an Owl to keep an eye on watch dogs as well. Recently unearthed scandals including Satyam clearly showed the involvement of Auditors and this has necessitated formal establishment of Forensic Accounting System in India and world over.

Forensic Accounting does not mean to bring in auditor over the auditor but it is a need which has to be catered in the light of bigger complexities in the whole accounting and financial system. A genuine and perhaps logical question remains on the board, how many such auditors to be appointed to keep an eye on the next level? Hence, the more emphasis to be made on strengthening the existing systems rather than mere creation of extra filters at each level.

Forensic Accounting is basically an integration of accounting, auditing and investigative skills in a systematic manner. This concept was firstly coined by Mr. Maurice E Peloubet who said "Financial statements have some but not all the characteristics of forensic accounting".

'Forensic Accounting is the application of accounting principles, theories and discipline to facts or hypothesis at issues in a legal dispute and encompasses every branch of accounting knowledge.' **(American Institute of Certified Public Accountants)**

Forensic accounting is a science (i.e., a department of systemized knowledge) that deals with the application of accounting facts gathered through auditing methods and procedures to legal problems usually dealing with financial and valuation issues.

(Ref. Article by Grippo, Frank J. & Ibex in 'National Public Accountant' June 2003 edition)

The meaning of the concept remains as a process of identifying, measuring and communicating business information, to permit informed judgment or decision by the users which is suitable for use in a court of law, public discussion or debate.

Anything which can be produced in a court of law can be the part and parcel of Forensic Accounting. In fact, the word forensic comes from the dictionary meaning wherein something that can be produced in a court of law is the major essence. In other words the meaning of the concept can be linked with enforceability of any wrong doing in the eyes if law.

NATIONAL AND INTERNATIONAL SCENARIO IN UNEARTHED SCAMS

GLOBAL SCENARIO

Frauds title	**Country of origin**	**Year of detection**	**Overall effects**
Enron	United States of America	2001	Loss of shareholders' value and Bankruptcy of an organization mainly due to insider trading, money laundering, securities' fraud, material misstatement of information in financials
WorldCom	United States of America	2002	Loss of shareholders value and bankruptcy mainly due to capitalizing the revenue items, bogus accounting entries and overstated cash flows

Bank of Credit & Commerce International	United Kingdom	1991	Closing of a bank mainly due to the material misrepresentation of financials, manipulation in Income and Expenses, funding for the illegal ways and fake organizations, unlawful activities
Nortel	Canada	2003	Distribution of ill- advised bonuses to top 43 officials, improper restructuring of an organization, Illegal breach of trust in Health & Welfare Trust
Waste Management Inc.	United States of America	1999	Misstatement of financials mainly in the fields of depreciation accounting, inflated earnings, violation of Anti-Trust Law in USA
Xerox	2000	United States of America	Material misstatement in the form of recognition of revenue, understatement of liabilities
AOL	2002	United States of America	Inflated Sales, Auditor's involvement in material misstatement of facts in Financials
Anglo Irish Bank	2008	Ireland	Under secured or non- secured disbursement of loans to the borrowers in return for the money, overstatement of advances
Lehman Brothers	2009	United States of America	Cosmic changes in Financials by executives in the form of temporary repurchase of securities, material misstatement of facts

INDIAN SCENARIO

Frauds title	**Country of origin**	**Year of detection**	**Overall effects**
Harshad Mehta Scam	India	1991	Drastic decline in the stock prices, huge losses for banks dealing with Harshad Mehta, violation of Banking Regulation Acts in the form of cheques in personal name rather than bank's name, squeezing of some portion of capital of the bank,
Ketan Parekh	India	2001	Defrauding Bank of India for over 30 Million Dollars, MMCB bank was also charged as an ally to Ketan Parekh, Pledging of low priced and low liquidity stock to banks for borrowing.
Satyam Computers	India	2009	Inflated cash and bank balances in consultation and with the knowledge of auditors and Finance department, deliberately enhanced liquidity position and increased profits

CORPORATE GOVERNANCE

Corporate governance implies that the company would manage its affairs with diligence, transparency, responsibility and accountability, and would maximise shareholders' wealth. Hence it is required to design systems, processes, procedures, structures and take decisions to augment its financial performance and stakeholder value in the long run. Good corporate governance requires companies to adopt practices and policies which comprise performance accountability, effective management control by the Board of Directors, constitution of Board.

Committees as a part of the internal control system, fair representation of professionally qualified, non-executive and independent Directors on the Board, the adequate timely disclosure of information and the prompt discharge of statutory duties. In fact, companies are needed to at-least has policies and practices in conformity with the requirements stipulated under Clause 49 of the Listing Agreement. Corporate Governance is a tool by which companies are directed and governed by the management in the best interests of the stakeholders and others by ensuring better management, greater transparency and timely financial reporting. The three key aspects of corporate governance includes: inter-alia, accountability, transparency and equality of treatment for all stakeholders. Since the pivotal role in any system of corporate governance is performed by the Board of Directors, they are primarily accountable and responsible for governance of their companies. A number of reports and codes of Corporate Governance have been published internationally. Notable among them are the Report of Cadbury Committee, the Report of Greenbury Committee, the Combined Code of the London Stock Exchange, the OECD Code on Corporate Governance, the Blue Ribbon Committee on Corporate Governance, the Hampel Committee on Corporate Governance and the Review of the Role and Effectiveness of Non-executive Directors published by the Department of Trade and Industry, U.K. In the Indian scenario, the Confederation of Indian Industry (CII) published Desirable Corporate Governance – A Code, in April 1988 which was followed by the setting up of a committee by The Securities and Exchange Board of India in May 1999 under the Chairmanship of Kumar Mangalam Birla, decided to formulate the code of Corporate Governance.

Based on the report of this committee and developments thereafter, SEBI has issued thirteen Circulars which give a detailed provisions of Corporate Governance. In its constant endeavor to improve the framework of Corporate Governance in India in line with the needs of a dynamic market, SEBI constituted a Committee on Corporate Governance under the Chairmanship of N.R. Narayana Murthy, which submitted its report in February 2003. Based on its recommendations and public comments received on the report, SEBI in exercise of the powers conferred by section 11 (1) of the Securities and Exchange Board of India Act, 1992 read with section 10 of the Securities Contracts (Regulation) Act 1956, revised the Clause 49 of the Listing Agreement as per Circular SEBI/CFD/DIL/CG/1/2004/12/10dated 29 October, 2004.

RISK MANAGEMENT

Investors take decisions based upon their perceptions about risk. Risk Perceptions of the investors generally move in the following manner. Financials provided by an organization provide investors an insight about opportunities of an investment. This does not happen automatically. In the financials, the results are displayed. Those results depict something with reference to the historical data and predict something with reference to the years to come. In addition, investor has some risk perceptions attached to the various avenues of the investments based upon which the choice of avenues is done. This risk perception is subject to various factors including income available for the investment, age of the investor, market conditions, and growth expectations of the company under consideration and so on. However, the major factor influencing the decision making or more appropriately, the major foundation on which the entire decision making is built is “Quality and Genuineness of the Financial Data”.

Rather than post mortem exercises, prevention and early detection of erroneous records are desired. The best practices in this can be started at an internal level where the data are generated and processed. This not only preserves the interest of the investor but also increases the probability of the organization to survive for a long period of time.

INTERNATIONAL EXPERT’S SURVEY AND MATRIX (Ref. Survey in 2010, October)

Risk Perseverance	**Rate of return**	**Avenues of Investment**
Low	3% to 8%	FDs, Government Bonds, Debentures, Other Deposits

Moderate	8% to 20%	Mutual Funds, Capital Market Instruments and Long Term Annuity Private Sector Bonds
High	20% to 30% or Higher	Venture Capital, Joint Ventures, Foreign Investments

CORPORATE GOVERNANCE PREREQUISITES

Good Corporate Governance is the core process guided by a strategic leadership to provide values with necessary checks and balances. Trust is the foundation on which principles of governance are essentially built and to be observed more by way of self-regulation. However, law generally prescribes principles of corporate governance. In the year 2000, the Securities and Exchange Board of India prescribed certain conditions for compliance of corporate governance in Clause 49 of the Listing Agreement and in October, 2004, it introduced further amendments in the said clause. With the revised clause 49 coming into force with effect from 1st January, 2006, the scope and application of the requirements on corporate governance have undergone vast changes. To look into an entirety, the revised Clause 49 places set of responsibilities and accountabilities on the part of Board of Directors / CEO / CFO of the company. The statutory auditors have to take into account other reports/certificates in issuance of certificate on compliance of requirements of corporate governance. What role and responsibilities the audit professionals can envisage in the new requirements of corporate governance? What can be the best course of action during audit of corporate governance? The codification of Corporate Governance and its effective implementation in the true spirit would bring about a sea change in the way in which companies are directed and controlled. It would bring about better transparency in the reporting requirements in the corporate world. The entity with good corporate governance practices would be rewarded in terms of their valuations. The major code of Corporate Governance implemented in India as well as internationally is in the field of finance. The Chartered Accountants have also been assigned a key role to play in the implementation of the code of Corporate Governance. The audit committee has been given an important role to play in implementation of Corporate Governance. One of the members of the audit committee is required to have financial and accounting knowledge. This would encourage companies to induct Chartered Accountants in the board and in the audit committee. The auditor of an entity would also play a crucial role in the implementation of Corporate Governance. They are required to be present at meetings of the audit committee. This would enable the auditor to effectively communicate with members of the audit committee majority of who are independent directors of the board, on matters concerning audit. The auditor is required to certify the compliance of conditions. Clause 49 Listing Agreement includes within it the various compliances. Major contributors remain as under:

This includes various mandatory requirements. A major emphasis is given on the following:

1. Board of Directors should have an optimum combination of executive and non- executive directors with not less than 50% comprising of non-executive directors.
2. Remuneration paid to the non-executive director including independent director would be fixed by the Board of Directors subject to the previous approval of the shareholders in general meeting.
3. Board should also meet at least four times a year with a maximum gap of three months between two meetings.
4. There should be a code of conduct laid down by the Board for all its members and senior management of the company.
5. Audit Committee should have minimum three directors as members. Two Third members of the audit committee should be independent directors.
6. Chairman of the audit committee should be an independent director.
7. All members of the audit committee should be financially literate with at least one member having financial and management expertise.
8. Expert member should remain present in the general meetings of the shareholders to clarify their queries.
9. Company secretary also acts as a secretary of audit committee.
10. Audit Committee should have powers including investigation of any activity within its terms of reference, seeking of information from its employees and obtaining of a legal or other professional advice.
11. Audit Committee should mandatorily review the information with regard to management discussion and analysis of financial condition, statement of significant related party transactions, letters of internal control weaknesses reported, appointment, removal and terms of remuneration of Chief Internal Auditor and so on.
12. There should be a disclosure of the accounting treatment other than the one mentioned in Accounting Standards and generally followed by the company.
13. Laying down of a clear procedure of risk assessment and minimization for board members.
14. CFO that is a whole time Finance Director should certify to the board that they have reviewed.

There are many such sections which make the organizations accountable to public at large. Ultimately, it is investors' money which is at stake and hence all the efforts are being made in order to protect it in every possible manner. Corporate Governance has entered the Annual Reports of the companies as well. Section 37.I-C as well 37.I-D relate to the mandatory and voluntary disclosures being made by the company including declarations wherever required. Also, under section 37.1-B, companies have to comply with a quarterly report to the Stock Exchanges within 15 days from the close of quarter with signatures of Compliance Officer or Chief Executive Officer as the case may be.

DISCLOSURE ABOUT RISK MANAGEMENT

Sources of Risk	**Components of Risk**
1. Business Risk	1. Diversiable Risk (Unsystematic Risk)
2. Financial Risk (Systematic Risk)	2. Non-Diversiable Risk (Systematic Risk)
3. Interest Rate Risk	
4. Liquidity Risk	

5. Market Risk
6. Event Risk

The above classification remains to the classification as per Appendix B.

There are various mandatory and voluntary measures acted upon by the legal enactments and managements respectively in order to protect investors' interest. To quote a few, we may have the following:

(a) Internal Checks & Controls
(b) Internal Audit
(c) Statutory Audit
(d) Clause 49 of the Listing Agreement
(e) SEBI (Disclosure and Investment Procedures) Guidelines, 2000
(f) APPENDIX J, K & I addressed to Stock Exchanges
(g) Annexure IB for Corporate Governance
(h) Annual Reports
(i) Financial Statements
(j) Analysis and Interpretation of the financials published by the companies and outside experts.

STRENGTHENING EXISTING SYSTEM VSCREATION OF FIREWALLS

The above referred list is inclusive and not exhaustive. The real crux of the problem is the logical question which comes in a way. "In spite of having adopted so many measures, how and why the extra ordinary manipulations in financials misguide the investors and moreover, how the scandals and scam remain earthed?"

The solution to this perhaps lies in taking up each problem at its own length and making up the link of such tools together.

Frauds and Scandals will remain till the moment human beings exist. The main issue in front of the regulatory authorities and investors is how many such filters will be created in order to ensure the functionality.

Researcher would like to throw some light over a period of time to come up with the set of effective tools which would not only act as post mortem weapons but also help in early detection and prevention of frauds.

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ISBN: 978-93-5051-662-1

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Study of Impact of Economic Crisis on Global & Indian Economy

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ABSTRACT

This paper is based on the issues & challenges faced by global economy since 2007. In the paper. It is discussed about the global economic recession of 2008 & the present Euro Crisis 2011 from which the global economy is suffering. It attempts to identify the root causes, impacts & the reforms of both the financial meltdowns. The number of developed countries in the world is far less than that of the developing countries. As a result of this the developing countries are highly dependent on the developed countries for their functioning. For example, India parks its excess funds as an investment in the Federal bank in US. So the impact of an economic crisis in any of the developed economy will have a cascading effect on the developing economies associated with it. This study also consists of the scenario in India when the recession took place. As said sectors like Aviation, IT, & Tourism were highly affected due to this economic crisis. But still due to the conservative Banking structure, India was able to recover at a great pace compared to the other economies. On the other hand we can say that it proved out to be a good opportunity for India to penetrate foreign markets.

INTRODUCTION

Economic growth is defined as “An increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Economic growth can be measured in nominal terms, which include inflation, or in real terms, which are adjusted for inflation.”

Since 2004, while the US growth engine continued to chug along strongly, growth in Japan and emerging market economies (EMEs) was higher than previous expectations. However with the onset of 2008, there was a sudden turmoil in global economy due to the collapse of the US economy due to subprime crisis which also lead to risk of hard landing of dollar. Leading financial experts felt the need for making policy changes. Some were like ‘Coordinated policy action to redress the global imbalances’ & ‘Realignment of exchange rates and reform of the reserve system’. Now in 2011, when we are in the post recession era, where markets have matured and growth is witnessed. Opportunities are available through continuous research work and improvement and updating of Information Technology.

RESEARCH METHODOLOGY

Sampling Methodology

It is the methodology of selecting the samples in the research.

Population: Global Economy

Sample Technique

It is the method used to collect the samples

It is multistage sampling with a combination of below sampling techniques

1. Convenience Sampling
2. Judgement Sampling

Type of research

The research is Analytical in nature

Data Collection

The method of data collection is secondary in nature.

ECONOMIC CRISIS

A. Recession 2008

Recession is a normal (albeit unpleasant) part of the business cycle; however, one-time crisis events can often trigger the onset of a recession. The global recession of 2008-2009 brought a great amount of attention to the risky investment strategies used by many large financial institutions, along with the truly global nature of the financial system. As a result of such a wide-spread global recession, the economies of virtually all the world's developed and developing nations suffered extreme set-backs and numerous government policies were implemented to help prevent a similar future financial crisis.

Causes

1. It all started in US: In order to understand what is now happening in the world economy, we need to go a little back in past and understand what was happening in the housing sector of America for past many years. In US, a boom in the housing sector was driving the economy to a new level.? A combination of low interest rates and large inflows of foreign funds helped to create easy credit conditions where it became quite easy for people to take home loans. As more and more people took home loans, the demands for property increased and fueled the home prices further. As there was enough money to lend to potential borrowers, the loan agencies started to widen their loan disbursement reach and relaxed the loan conditions.
2. Since the demands for homes were at an all time high, many homeowners used the increased property value to refinance their homes with lower interest rates and take out second mortgages against the added value (of home) to use the funds for consumer spending. The lending companies also lured the borrowers with attractive loan conditions where for an initial period the interest rates were low (known as adjustable rate mortgage (ARM). However, despite knowing that the interest rates would increase after an initial period, many sub-prime borrowers opted for them in the hope that as a result of soaring housing prices they would be able to quickly refinance at more favorable terms.
3. Overbuilding of houses during the boom period finally led to a surplus inventory of homes, causing home prices to decline beginning from the summer of 2006. Once housing prices started depreciating in many parts of the U.S., refinancing became more difficult. Home owners, who were expecting to get a refinance on the basis of increased home prices, found themselves unable to re-finance and began to default on loans as their loans reset to higher interest rates and payment amounts. As a result of mismatch of demand & supply, there was a sharp decline in prices; people who had come out to sell their houses were not getting the desired prices.
4. The returns on sub prime loans were comparatively higher than the prime loans. As a result, many investors hedged their losses against the profits made in this lucrative investment opportunity. This

further worsened the problem. The effect of this was most severely felt by Banks viz. Lehmann brothers, Citibank & Merril Lynch.

5. Since banks and other financial institutes are like backbone for other major industries and provide them with investment capital and loans, a loss in the net capital of banks meant a serious detriment in their capacity to disburse loans for various businesses and industries. This led to shortfall in the funds available with the industries for the day to day activities.

Impacts

1. Recession in December 2007 and US economy is estimated to have shrunk by 2.7 per cent in 2009.23.
2. The most severely affected are middle-income countries, especially in Central and Eastern Europe and the Commonwealth of Independent States. This has been driven by the combination of the credit crunch and domestic imbalances such as large current account deficits and housing bubbles.
3. Overall, the smaller, more open economies have been hit harder, while the larger emerging economies have been supported by domestic demand and government spending. China and India have notably continued to grow strongly during the crisis.
4. One of the biggest impacts of recession was high unemployment. According to the ILO's Global Employment Trends (January 2010), the number of unemployed persons is estimated at 212 million in 2009, an increase of almost 34 million on the number in 2007. Employed section was willing to sacrifice their salaries in order to remain on roll.
5. A collapse of the US sub-prime mortgage market and the reversal of the housing boom in other industrialized economies have had a ripple effect around the world.
6. Some financial products and instruments have become so complex and twisted, that as things start to unravel, trust in the whole system started to fail.

Recovery & Policies

Mitigating the effects of the crisis and securing a sustainable recovery:

1. The response has consisted of three main interventions:
   (a) Bailouts and injections of money into the financial system to keep credit flowing
   (b) Cutting interest rates to stimulate borrowing and investment
   (c) Extra fiscal spending to shore up aggregate demand.

This would help in maintaining liquidity in the world economy. In order to recover, the economy needs to get continuous assistance from the Government as well.(In form of fiscal stimulating packages). This would also help in reviving the lost position of the industrial sectors which were affected by the crisis.

2. The developing countries spread out fiscal stimulus packages in order to tackle with the recession.
3. The International Labour Organisation study (2009a) examines policy interventions in four broad areas: stimulating labour demand, supporting jobs, job-seekers and unemployed; expanding social protection and food security; using social dialogue and protecting rights at work. This would target the attrition rate which was high after the recession.
4. The US fiscal stimulus package - known as American Recovery and Reinvestment Act (ARRA) - was enacted into law on February 17, 2009. Its original size was US $825 billion dollars to be spread over 2009-2011.
5. Many countries came up with tax cuts for their policy packages. This would encourage more investments in the policy packages from the potential investors.

6. The most commonly used intervention in high income countries is training for both those threatened by layoffs and the unemployed (including work experience and apprenticeship initiatives) (27 countries), followed by work sharing (24 countries), increased resources for public employment services, including job search assistance measures (20 countries), and job/wage subsidies (20 countries).

Role of IMF

(a) Lend to countries that have been adversely affected by the crisis,
(b) Help to establish an agreed approach to global economic and financial recovery, and
(c) Monitor the implementation of national economic and financial policies, in particular exchange-rate policies, to minimize the negative, spillover effects of one country’s policies on other countries.

Policy Reforms by Few Major Countries Post Recession

1. United States: To help stabilize financial markets, the US Congress established a $700 billion Troubled Asset Relief Program (TARP) in October 2008. The government used some of these funds to purchase equity in US banks and other industrial corporations, much of which had been returned to the government by early 2011. In January 2009 the US Congress passed and President Barack OBAMA signed a bill providing an additional $787 billion fiscal stimulus to be used over 10 years - two-thirds on additional spending and one-third on tax cuts - to create jobs and to help the economy recover. Approximately two-thirds of these funds were injected into the economy by the end of 2010. In 2010, the US budget deficit reached nearly 9% of GDP; total government revenues from taxes and other sources remained lower, as a percentage of GDP, than that of any other developed country.

2. United Kingdom: BROWN government to implement a number of measures to stimulate the economy and stabilize the financial markets; these include nationalizing parts of the banking system, cutting taxes, suspending public sector borrowing rules, and moving forward public spending on capital projects. Facing burgeoning public deficits and debt levels, the CAMERON government in 2010 initiated a five-year austerity program, which aims to lower London's budget deficit from over 10% of GDP in 2010 to nearly 1% by 2015.

3. Germany: The recovery was attributable primarily to rebounding manufacturing orders and exports - increasingly outside the Euro Zone. Domestic demand, however, is becoming more significant driver of Germany's economic expansion. Stimulus and stabilization efforts initiated in 2008 and 2009 and tax cuts introduced in Chancellor Angela MERKEL's second term increased Germany's budget deficit to 3.3% in 2010.

4. India: In 2010, the Indian economy rebounded robustly from the global financial crisis - in large part because of strong domestic demand - and growth exceeded 8% year-on-year in real terms. Merchandise exports, which account for about 15% of GDP, returned to pre-financial crisis levels.

Impact on India

1. For the last two years, our stock market was touching new heights thanks to heavy investments by Foreign Institutional Investors (FIIs). However, when the parent companies of these investors (based mainly in US and Europe) found themselves in a severe credit crunch as a result of sub-prime mess, the only option left with these investors was to withdraw their money from Indian Stock Markets to meet liabilities at home.
2. Since, the money, which FIIs get after selling their stocks, needs to be converted into dollars before they can sent it home, the demands for dollars has suddenly increased. As more and more FIIs are buying dollars, the rupee is loosing its strength against dollar. As long as demands for dollars remain high, the rupee will keep loosing its strength against dollar.
3. A global recession has hurt external demand. International lenders who have become extremely risk aversive can limit access to international capital. If that happens, both India’s financial markets and the real economy will be hurt in the process. Suddenly, the 9% growth target does not

seem that ‘doable’ anymore; we should be happy to clock 7% this fiscal year and the next. However, one positive point in favor of India is the fact that Indian Banks are more or less secured from the ill-effects of sub-prime mess. A glance at Indian banks’ balance sheets would show that their exposure to complex instruments like CDOs is almost nil.

B. Euro Crisis 2011 Causes

1. One narrative describing the causes of the crisis begins with the significant increase in savings available for investment during the 2000-2007 periods. During this time, the global pool of fixed income securities increased from approximately $36 trillion in 2000 to $70 trillion by 2007. This "Giant Pool of Money" increased as savings from high-growth developing nations entered global capital markets. Investors searching for higher yields than those offered by US Treasury bonds sought alternatives globally. The temptation offered by this readily available savings overwhelmed the policy and regulatory control mechanisms in country after country as global fixed income investors searched for yield, generating bubble after bubble across the globe. While these bubbles have burst causing asset prices (e.g., housing and commercial property) to decline, the liabilities owed to global investors remain at full price, generating questions regarding the solvency of governments and their banking systems.
2. How each European country involved in this crisis borrowed and invested the money varies. For example, Ireland's banks lent the money to property developers, generating a massive property bubble. When the bubble burst, Ireland's government and taxpayers assumed private debts. In Greece, the government increased its commitments to public workers in the form of extremely generous pay and pension benefits. Iceland's banking system grew enormously, creating debts to global investors ("external debts") several times larger than its national GDP.
3. Rising government debt levels. Government deficit of Euro zone compared to USA and UK. In 1992 members of the European Union signed the Maastricht Treaty, under which they pledged to limit their deficit spending and debt levels. However, a number of EU member states, including Greece and Italy, were able to circumvent these rules and mask their deficit and debt levels through the use of complex currency and credit derivatives structures. The structures were designed by prominent US investment banks, who received substantial fees in return for their services and who took on little credit risk themselves thanks to special legal protections for derivatives counterparties.
4. Public debt as a percent of GDP (2010). Rising debt levels of European countries were caused by excess government spending. According to their analysis increased debt levels are due to the large bailout packages provided to the financial sector during the late-2000s financial crisis, and the global economic slowdown thereafter. The average fiscal deficit in the euro area in 2007 was only 0.6% before it grew to 7% during the financial crisis. In the same period the average government debt rose from 66% to 84% of GDP.
5. Trade imbalances. Commentators such as Financial Times journalist Martin Wolf have asserted the root cause of the crisis is imbalances on the balance of payments. He notes that in the run to the crises from 1999-2007, Germany had a considerably better public debt and fiscal deficit relative to GDP than some of the worse affected Eurozone members like Spain and Ireland. Whereas in the same period, all the worse affected major countries (Portugal, Ireland, Italy and Spain) had a far worse balance of payments position than Germany.
6. Monetary policy inflexibility. Since Euro zone countries are not able to conduct their own monetary policy, they have a higher default risk than countries that can. For example, the British government can "print money" to pay creditors to reduce the risk of default, while Euro zone countries like France cannot. In addition, when a country "prints money" it devalues its currency relative to its trading partners, which makes its exports cheaper, thereby increasing GDP and tax revenue while reducing its trade deficit. For example, by the end of 2011 anyone who has lent

money to Britain has suffered an approximate 30% cut in the repayment value of the debt following a 25% fall in the rate of exchange and 5% rise in inflation.

7. Loss of confidence. Prior to development of the crisis it was assumed by both regulators and banks that sovereign debt from the Euro zone was safe. Banks had substantial holdings of bonds from weaker economies such as Greece which offered a small premium and seemingly were equally sound. As the crisis developed it became obvious that Greek, and possibly other countries', bonds offered substantially more risk. Contributing to lack of information about the risk of European sovereign debt was conflict of interest by banks that were earning substantial sums underwriting the bonds. [37] The loss of confidence is marked by rising sovereign CDS prices, indicating market expectations about countries' creditworthiness.

COURSE OF ACTION

- **Use Available Tools:** The troubled countries cannot devalue or monetize their deficits. On the other hand, their adjustment is impeded by inflexible labor markets and the EU has limited EU-wide fiscal tools at its disposal to help. It follows that Eurozone members must use the tools available to them much more aggressively, Dadush stated. This includes painful measures, including large scale fiscal consolidation, wage cuts, and structural reforms designed to increase competition in both labor and product markets.
- **EU-wide:** European monetary policy must remain expansionary and favor a Euro decline. Germany and other surplus countries should take active measures to stimulate domestic demand. Bahgwati indicated that larger economies like Germany have the ability to support the smaller ailing European economies.
- **International Assistance:** The Euro crisis represents the largest risk to the global economic recovery, and the US and the IMF must continue to offer assistance. Dadush suggested that if the crisis were to spread to Italy and Spain, it could have a devastating impact on the European banking system, and cause another global credit crunch.

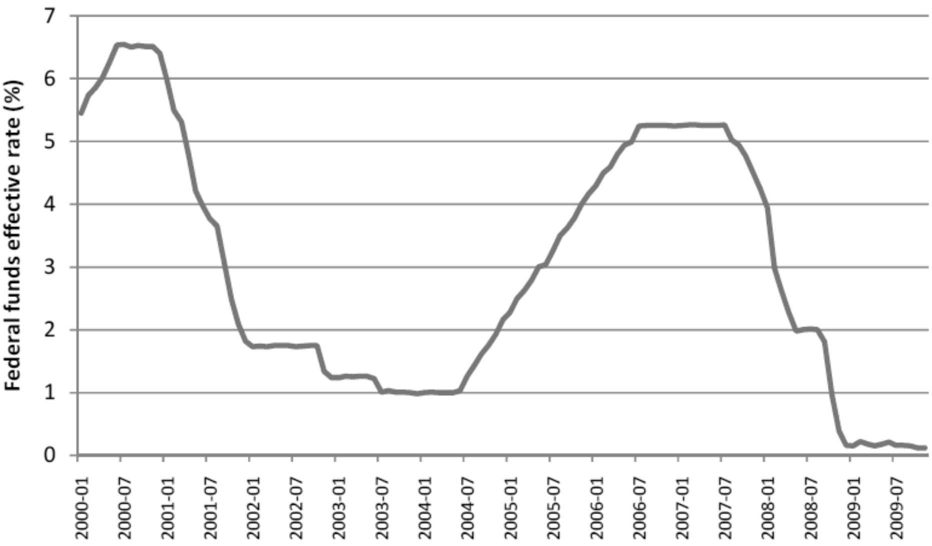
FINDINGS

1. The policy makers deviated from historical precedents and principles for setting interest rates, which had worked well for 20 years. They prolonged it by misdiagnosing the problems in the bank credit markets and thereby responding inappropriately by focusing on liquidity rather than risk. They made it worse by providing support for certain financial institutions and their creditors but not others in an ad hoc way without a clear and understandable framework.
2. We would recommend the following:

- First, return to the set of principles for setting interest rates that worked well during the Great Moderation.
- Second, base any future government interventions on a clearly stated diagnosis of the problem and a rationale for the interventions.
- Third, create a predictable exceptional access framework for providing financial assistance to existing financial institutions.
- A recession generally lasts from six to 18 months, and interest rates usually fall in during these months to stimulate the economy by offering cheap rates at which to borrow money.
- Our analysis is based on publicly available data. Policymakers have access to other sources of data as well. Policymakers could well believe that bold action is necessary based on data that are different from that considered here. If so, responsible policymaking requires that they share both the data and the analysis that underlies the need for bold policy with the public.

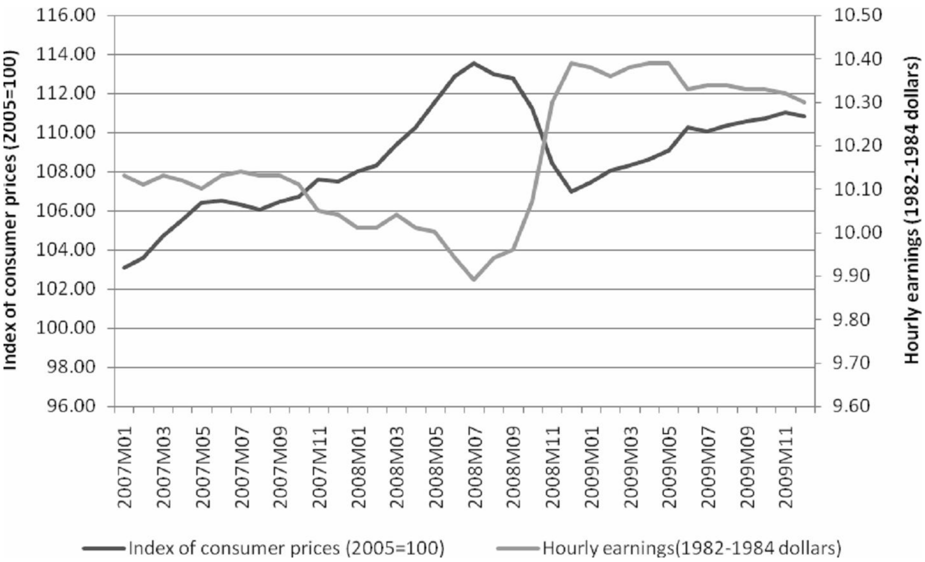
Tables & Figures

US interest rates were too low following the bursting of the dotcom bubble



Source: http://www.federalreserve.gov/releases/h15/data.htm

Changes in consumer prices and real hourly wage in the United States during the crisis, 2007-2009 (monthly data)



Source: Bureau of Labor Studies, Current Employment Estimates database (hourly earnings); EUROSTAT database of harmonized index of consumer prices (HICP) (index of consumer prices).

LIMITATIONS OF STUDY

1. Only few countries are considered when we talk about global recession. We have considered only the major economies which have been impacted by the economic crisis.
2. Only major causes and impacts are considered in the paper.
3. This research is based on secondary data only due to the inaccessibility of primary data. Due to time constraints, we have included the work of only few researchers in our paper.

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ISBN: 978-93-5051-662-1

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Economic Growth in Relation to Infrastucture Development — Issues and Challenges

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ABSTRACT

India's rise in recent years is a most prominent development in the world economy. India has re-emerged as one of the fastest growing economies in the world. India's growth, particularly in manufacturing and services, has boosted the sentiments, both within country and abroad. With an upsurge in investment and robust macroeconomic fundamentals, the future outlook for India is distinctly upbeat. According to many commentators, India could unleash its full potentials, provided it improves the infrastructure facilities, which are at present not sufficient to meet the growing demand of the economy. Failing to improve the country's infrastructure will slow down India's growth process. Therefore, Indian government's first priority is rising to the challenge of maintaining and managing high growth through investment in infrastructure sector, among others. The provision of quality and efficient infrastructure services is essential to realize the full potential of the growth impulses surging through the economy. India, while stepping up public investment in infrastructure, has been actively engaged in involving private sector to meet the growing demand. The demand for infrastructure investment during the 11th Five Year Plan (2007-2011) has been estimated to be US$ 492.5 billion (Planning Commission, 2007). To meet this growing demand, Government of India has planned to raise the investment in infrastructure from the present 4.7 per cent of GDP to around 7.5 to 9 per cent of GDP in the 11th Five Year Plan. In general, efforts towards infrastructure development is continued to focus on the key areas of physical and social infrastructure.

The way infrastructure has been created and offered through the public sector has led to many issues like.

Inefficiency of operations, inadequate maintenance, Unresponsiveness to user demand, Neglect of the poor. Neglect of the environment and political interference. This also evolves the various challenges like Project structuring, Risk assessment and management, Project financing (appraisal, sourcing and engineering), implementation, India should absorb the large investments in infrastructure sector to sustain growth momentum, need to bridge infrastructure gaps to sustain economic growth.

This report therefore, focuses on issues and challenges of infrastructure development in a smart way in keeping with India's inclusive growth objectives.

RESEARCH OBJECTIVE

- To understand importance of development of the infrastructure for the economic growth.
- To study the Positives and Benefits of infrastructure development.

- To find out the issues and challenges of infrastructure development.
- To study the growth in industries with the government focus on infrastructure development.
- To see the infrastructure development planned and being executed as per the needs of people.

Research Methodology

The study is based on descriptive research design.

Data Collection

Two types of data were collected; Primary and secondary.

Primary data collection:

The method of data collection used was self administered questionnaire.

Secondary data collection through Websites, Journals, Newspaper articles, Government Financial reports, etc.

Key words: Infrastructure; Issues and challenges; economic growth in India; developing countries, Gross Domestic Product, National Income, etc.

INTRODUCTION

India's rise in recent years is a most prominent development in the world economy. India has re-emerged as one of the fastest growing economies in the world. One of the major requirements for sustainable and inclusive economic growth is an extensive and efficient infrastructure network. It is critical for the effective functioning of the economy and industry. The key to global competitiveness of the Indian economy lies in building a high class infrastructure. To accelerate the pace of infrastructure development and reduce the infrastructure deficit, the Government has initiated a host of projects and schemes to upgrade physical infrastructure in all crucial sectors. Despite several challenges, the positive results of the Government's initiatives are showing in some sectors. However, required capacity addition in a time-bound manner needs focused attention in other sectors.

Along with Independence, India inherited famine and poverty from its colonial rulers. There was dire need for housing, health facilities, education, roads, power, irrigation projects and drinking water facilities for millions of underprivileged people. This called for proper economic planning. Unfortunately, the task of planning fell into the hands of those who were sympathetic to the feudal lobbies. These rich and powerful people had less concern for the social uplift of the poverty stricken masses. The outcome was that they lost sight of the main objective of planning the economy by keeping the overall national interest in view. It created economic inequalities among the States and erected roadblocks on the path of building infrastructure. Even today the people in power tend to fall victims to this skewed vision.

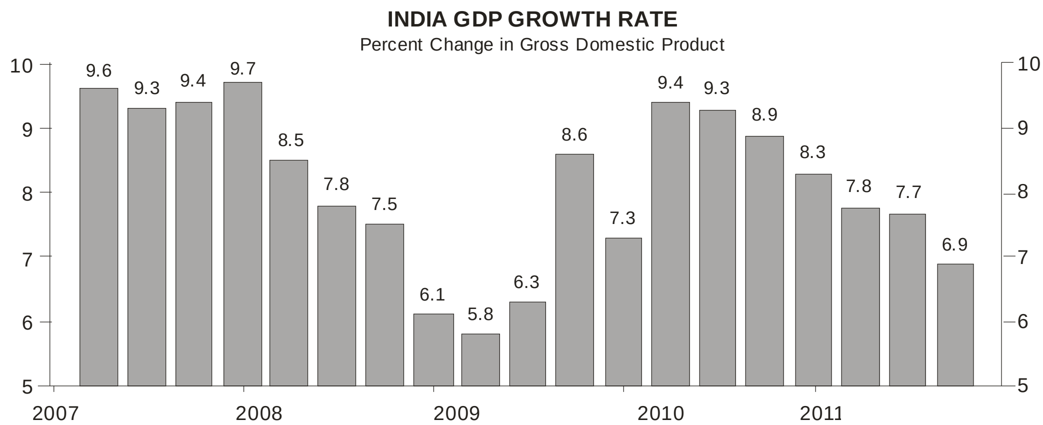
In developing countries, an essential requirement for economic growth and sustainable development is the provision of efficient, reliable and affordable infrastructure services, such as water and sanitation, power, transport and telecommunications. The availability of efficient infrastructure services is an important determinant of the pace of market development and output growth, and, in addition, access to affordable infrastructure services for consumption purposes serves to improve household welfare, particularly among the poor.

High transactions costs arising from inadequate and inefficient infrastructure can prevent the economy from realizing its full growth potential regardless of the progress on other fronts. Physical infrastructure covering transportation, power and communication through its backward and forward linkages facilitates growth; social infrastructure including water supply, sanitation, sewage disposal, education and health, which are in the nature of primary services, has a direct impact on the quality of life. The visible signs of shortfalls in capacity and inefficiencies include increasingly congested roads, power failures; long-waiting lists for installation of telephones and a shortage of drinking water illustrate the widening gap between demand and supply of infrastructure and also raise questions concerning the sustainability of economic growth in future.

During the post-independence period India focused on improving economic growth through a stated growth strategy of rapid industrialisation with capital-intensive industries. The development strategy which was centrally planned and under the purview of the public sector. Along with investing in traditional areas of public investment, such as infrastructure, the government was also competing with the private sector in commercial and industrial activities.

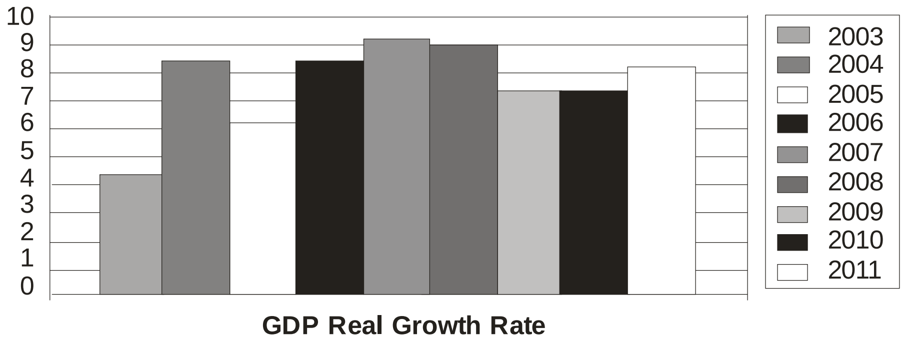
The Gross Domestic Product (GDP) in India expanded 6.9 per cent in the third quarter of 2011 over the previous quarter. Historically, from 2000 until 2011, India's average quarterly GDP Growth was 7.45 percent reaching an historical high of 11.80 per cent in December of 2003 and a record low of 1.60 percent in December of 2002. India's diverse economy encompasses traditional village farming, modern agriculture, handicrafts, a wide range of modern industries, and a multitude of services. Services are the major source of economic growth, accounting for more than half of India's output with less than one third of its labor force. The economy has posted an average growth rate of more than 7% in the decade since 1997, reducing poverty by about 10 percentage points. This page includes: India GDP Growth Rate chart, historical data, and forecasts.

India's GDP Growth Slows to 6.9%



Source: www.Tradingeconomics. India Central Statistical Orga.

Infrastructure Sector Growth Rate in India GDP came to 3.5% in 1996- 1997 and the next year, this figure was 4.6%. The Growth Rate of the Infrastructure Sector in India GDP increased after the Indian government opened the sector to 100% foreign direct investment (FDI). This was done in order to boost the Infrastructure Sector in the country. The result of opening the sector to the private sector has been that Infrastructure Sector Growth Rate in India GDP has increased at the rate of 9%. It is estimated that the Growth Rate of the Infrastructure Sector in India GDP will grow at the rate of 8.5% between 2006 and 2010.



The growth strategy led to steady increase of the investment/GDP ratio and also in the overall economic growth. The aggregate real investment/ GDP ratio increased from 17 per cent during the 70s to over 20 per cent during the 80s and 90s. The significance of public sector is evident from the rising share of the public investment over the 90s, almost reaching the levels of private investment (undertaken by the households and corporate).

OVERVIEW OF PERFORMANCE

The Planning Commission in its Mid-Term Appraisal of the Eleventh Five Year Plan has taken stock of total investment in infrastructure (electricity, roads and bridges, ports, airports, telecommunications, railways, irrigation, water supply and sanitation, storage, and oil and gas pipelines) during the first two years (2007-08 and 2008-09) of the Plan. It has revised the estimates of total investment in infrastructure during the Eleventh Plan period based on the revised data available during the first two years of the Eleventh Plan and it is now estimated that it would be ` 20,54,205 crore, which is comparable with the initial investment planned. The contribution of the private sector during the first two years was 34.32 per cent and 33.74 per cent respectively, higher than the targeted 30 per cent. The investment in infrastructure has reached 7.18 per cent of the gross domestic product (GDP) in 2008-09 and this is expected to increase to 8.37 per cent in the terminal year of the Plan. Total investment in infrastructure during the Eleventh Plan is, therefore, likely to increase by 2.47 percentage points of the GDP as compared to the Tenth Plan. During the first three years (2007-08 to 2009-10) actual expenditure in the ten infrastructure sectors (including investment in gas pipelines along with oil) is about ` 10, 65, 828 crore as against the target of ` 9, 81,119 crore.

While the overall investment in infrastructure seems on target, the targets in some sectors have not been achieved. During 2007-08 to 2009-10, capacity addition has been lower than the target in power, roads (National Highways Development Project [NHDP]), new railway lines, and doubling of railway lines. The sub-sectors where achievements have been above or close to target are telecommunications, villages electrified under the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), railway lines electrification, railway gauge conversion, and new and renewal of roads construction under the Pradhan Mantri Gram Sadak Yojana (PMGSY).

The Department of Programme Implementation monitors the progress in Central sector projects costing 150 crore and above on a monthly basis. The progress report of October 2010 indicates that projects such as roads, power, railways, petroleum, telecom, coal, and steel constitute about 92 per cent of the total 559 monitored projects and overtime project delays have been creeping up. As on October 2010, out of the 559 projects, 14 are ahead of schedule, 117 are on schedule, and 293 are delayed. Of the balance projects, no dates have been fixed for commissioning. In the road transport and highways sector, 51 projects have reported delay in the range of 1 to 36 months. In the power sector, 20 projects have reported delays in the range of 1to18 months over the completion schedule earlier targeted. In the petroleum sector, 16 projects have reported delays in the range of 1 to16 months.

There has been a steady decline in the time and cost overruns of Central-sector projects costing 150 crore and above and this can be attributed to closer monitoring and system improvements by the Ministries concerned. An examination of cost overruns in the last twenty years as against originally approved costs shows that the former declined from 61.6 per cent in March 1991 to 12.06 per cent in March 2008. There is, however, an upward trend from March 2008 as cost overruns reached 14.72 per cent in March 2010 and further climbed to 20.7 per cent in October 2010. The rise is partly due to exclusion of projects costing less than ` 150 crore from the monitoring system as these had lower cost overruns compared to the bigger projects. The increase is also partly due to steep rise in prices of steel and cement in 2006-07.

GROWTH IN INFRASTRUCTURE SERVICES (IN PER CENT)

TABLE 1

Sr. No.	Sector	2006-07	2007-08	2008-09	2009-10	2010-11 (April-Nov)
1.	Power	7.3	6.3	2.5	6.8	4.6
2.	Coal	5.9	6.0	8.2	8.0	0.6
3.	Railway revenue earning	12.2	6.8	13.2	3.2	6.3
4.	Freight Traffic	9.2	9.0	4.9	6.6	3.3
5.	Cargo handled at major ports	9.5	12.0	2.2	5.7	0.8
6.	Cement	9.4	7.8	7.6	10.1	4.1
7.	Petroleum					
	i. Crude Oil	5.6	0.4	-1.8	0.5	11.5
	ii. Refinery	12.6	6.5	3.0	-0.4	0.8
	iii. Natural gas	-1.4	2.1	1.4	44.8	19.8
8.	* Roads					
	Upgradation of highways					
	i. NHAI	-12.5	164.6	30.9	21.4	-32.2
	ii. NH(O) & BRDB	-10.5	12.5	17.3	4.0	-0.2

Notes: * Includes widening to four lanes and two lanes and strengthening of existing weak pavement only.

NHAI — National Highways Authority of India. BRDB — Border Road Development Board.

Source: Ministry of Statistics and Programme Implementation (MOSPI).

INFRASTRUCTURE DEVELOPMENT

To optimize the operational expenditure by obtaining electricity at economical tariffs, Indian Railways has planned to set up its own captive thermal power plants. To avail of electric power supply at economical rates, Railways, in partnership with the National Thermal Power Corporation (NTPC), is setting up a 1000 MW Thermal Power Plant at Nabi Nagar. The power supply from this plant is likely to be available during 2012. Railways is planning to set up a coal-based thermal power plant at Adra in Purulia district of West Bengal. An MoU has been signed between the NTPC and Railways to set up the proposed plant by a JV between the NTPC and Railways. 11.70 A greenfield electric loco manufacturing unit is being set up at Madhepura, Bihar, to manufacture 12,000 hp locomotives on the basis of a long-term procurement-cum-maintenance contract through PPP on build, own, and operate (BOO) basis, by selecting a JV partner through international competitive bidding (ICB). The cost of the project is ` 1,293 crore and equity contribution of Indian Railways and its JV partner will be in the ratio of 26:74. The cabinet has approved setting up of a greenfield rail coach factory at Kanchrapara, West Bengal to manufacture and supply 500 railcars per annum over a period of 10 years.

ROADS

National Highways Development Project (NHDP)

About 25 per cent of the total length of National Highways (NHs) is single lane/intermediate lane, about 52 per cent is two lane standard, and the balance 23 per cent is four lane standard or more. In 2010-11, the achievement under various phases of the NHDP up to November 2010 has been about 1,007 km and projects have been awarded for a total length of about 3,780 km.

Development of Roads in Left Wing Extremism (LWE)-affected areas

The project covering 1126 km of NHs and 4351 km of State roads in LWE-affected areas is spread over 34 district in eight States, namely Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, and Uttar Pradesh. An allocation of ` 1000 crore has been made for the project from the gross budgetary support (GBS) under the Annual Plan for 2010-11. As against the total target till December 2010, projects for a total length of 4897 km at an estimated cost of ` 5998 crore have been sanctioned/processed till November 2010. Of these, projects for a length of 3012 km at an estimated cost of 3537 crore have been awarded till November 2010 and an expenditure of 256 crore incurred.

Initiatives for Development of the Entire NH Network to Minimum Acceptable Two-lane Standard

Keeping in view the targets stipulated in the Eleventh Plan for accelerated efforts to bring the NH network up to a minimum two-lane standard within the next 10 years (i.e. by the end of the Twelfth Plan) and also for removing existing deficiencies, the Ministry has proposed a World Bank loan as well as budgetary allocations to reach this goal by December 2014. DPR consultants have been engaged for preparation of a DPR for about 3800 km proposed to be developed under World Bank Assistance. The MoRT&H has also initiated action for improvement of the remaining 2500 km of single/intermediate lane NHs through budgetary resources. In order to make a visible impact, the work would be taken up for up gradation on corridor concept. Therefore, corridors would include strengthening (in adjoining reaches) in addition to widening to two lane/two lane with paved shoulder standards in order to have better facility in long continuous stretches.

Construction of Rural Roads Under the Pradhan Mantri Gram Sadak Yojna (PMGSY)

The PMGSY was launched to provide single all-weather connectivity to eligible unconnected habitations having population of 500 persons and above in plain areas and 250 persons and above in hill States, the tribal (Schedule-V) areas, desert (as identified in the Desert Development Programme) areas, and LWE-affected districts as identified by the Ministry of Home Affairs.

AIRPORT DEVELOPMENT

As part of the restructuring and modernization of metro airports, Delhi and Mumbai airports are being restructured and modernized PPPs. Phase-1 of the development work of the Indira Gandhi International Airport (IGIA), Delhi, has already been completed with the operationalization of Termial-3 at an estimated cost of ` 12,857 crore. Development work at Chhatrapati Shivaji International Airport (CSIA), Mumbai, will be completed by 31 December 2012 with an estimated cost of ` 9802 crore. Similarly, the Airport Authority of India (AAI) has undertaken development work at Kolkata and Chennai airports with an estimated cost of 1942 crore and 1808 crore respectively, subsequently revised to 2325 crore and 2015 crore respectively. The revision in cost is under consideration. As per the revised schedule, the Kolkata project is to be completed by October 2011 and the Chennai project by May 2011 (domestic terminal) and July 2011 (international terminal).

URBAN INFRASTRUCTURE

In 2001, just 27.8 per cent of India's total population lived in urban areas. Yet, in absolute terms, with about 285 million persons living in urban areas, India has the second largest urban population in the world. It is expected that the urban population will rise to constitute 38 per cent of total population by 2026.

Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT)

Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) 11.130 The UIDSSMT is a sub-component of the JNNURM for development of infrastructure facilities in all towns and cities other than the 65 Mission cities. For obtaining assistance under the UIDSSMT, States and ULBs need to sign MoAs committing to implement reforms. From its inception in December 2005 till December 2010 as many as 764 projects across 641 towns and cities at a cost of ` 12,928.93 crore were sanctioned under the UIDSSMT, comprising inter alia 418 water supply projects, 96 sewerage projects, 65 storm water drainage projects, 56 solid waste management projects, and 108 road projects. So far, the committed ACA under the UIDSSMT for approved projects is ` 10,435.93 crore, against which ` 7110.29 crore h has been released till 31 December 2010.

FINANCING INFRASTRUCTURE

Debt financing

Net bank credit to infrastructure in 2009-10 defined as the difference between outstanding gross deployment of bank credit to infrastructure in March 2009 and March 2010, increased substantially in the current fiscal As compared to net bank credit increase of ` 64,322 crore during April-November 2009-10 there has been an increase of ` 1,02,301 crore during April-November 2010, showing 59 per cent rise.

Infrastructure Development and PPPs

Given the enormity of the investment requirements and limited availability of public resources for investment in physical infrastructure, it is imperative to explore avenues for increasing investment in infrastructure through a combination of public investment, PPPs and, occasionally, exclusive private investment wherever feasible.

With the objective of stimulating and mobilizing increased private-sector investments, either from domestic sources or foreign avenues, the Government has offered various incentives for the infrastructure sector for sustained economic growth. These include: allowing 100 per cent FDI (under the automatic route) in all infrastructure sectors including the roads, power, ports, and airport sectors; 74 per cent in telecom services and 100 per cent in telephone equipment; 49 per cent to100 per cent for various services in the aviation sector; extended tax holiday periods up to ten-year tax holidays (under section 80-IA of the Income Tax Act 1961) to enterprises engaged in the business of development, operation, and maintenance of infrastructure facilities; and emphasis on PPP as one of the preferred modes for project implementation.

TABLE 2: FDI Flows to Infrastructure (US$ million) (TABLE II)

Sector	**2007-08**	**2008-09**	**2009-10**	**April-Nov 2009**	**April-Nov 2010**
Power	968.8	1437.3	1437.3	1237.8	984.0
Non-conventional Energy	85.3	497.9	497.9	67.0	44.1
Petroleum & Natural gas	412.3	272.1	272.1	217.7	529.4
Telecommunications	2558.4	2554.0	2554	2223.3	1092.8
*Air Transport	35.2	22.6	22.6	15.7	115.6
Sea Transport	50.2	284.9	284.9	279.8	288.6
Ports	493.2	65.4	65.4	65.4	10.9
Railway-related Components	18	34.2	34.2	25.1	0.4
Total (of above)	4857.6	4637.4	5167.8	4132.8	3065.8

Source: Department of Industrial Policy & Promotion.

Notes: * Air transport including air freight. Variation in data is due to reclassification of some sectors.

The total FDI inflows during April-November 2010 have been low compared to the inflows during the same period in the previous year. FDI inflows into the petroleum and natural gas and air transport current financial year. FDI inflows into the power, telecommunications, and information and broadcasting sectors have been comparatively lower during 2010-11 (Table 11.12) Infrastructure development and PPPs (table II).

MAJOR CHALLENGES AND ISSUES FOR INFRASTRUCUTRE DEVELOPEMENT IN INDIA

The level of investment and capacity addition made in the key infrastructure sectors during the first three years of the Eleventh Plan vis-a-vis the financial and physical performance achieved in the Tenth Plan indicates an optimistic outlook for infrastructure sector as a whole. Yet, to accelerate the pace of infrastructure development further, certain challenges need to be overcome.

The Planning Commission has carried out a preliminary assessment of the investment in infrastructure during the Twelfth Plan (2012-17). The projected investment requirement would be of the order of ` 40,99,240 crore (about US$1025 billion). It is projected that at least 50 per cent of this investment would have to come from the private sector against about the 36 per cent anticipated in the Eleventh Plan. The public-sector investment would have to increase from ` 13,11,293 crore in the Eleventh Plan to about ` 20,49,620 crore. Thus financing infrastructure would be a big challenge in the coming years and to meet the challenge some innovative ideas and new models of financing would be required.

1. Apart from the need for substantial financial outlays for infrastructure, there are several on financing constraints that need to be addressed to avoid time and cost overruns. Urgent action is called for in addressing the problems of
   - (i) tendering of unviable projects;
   - (ii) bad quality of engineering and planning at DPR stage;
   - (iii) lack of standardized and sub-optimal contracts;
   - (iv) land acquisition delays and slow approval processes, especially environmental and forest clearances;
   - (v) insufficient optimization of procurement costs (of PSUs);
   - (vi) weak performance management in nodal agencies and PSUs and;
   - (vii) inadequate availability of skilled and semi-skilled manpower.

2. To overcome execution issues during the construction/building stage, the best available talent/skilled manpower, for the planning process and at project document preparation stage, needs to be hired. Significant upfront investment in engineering and planning (for example project creation, contracting, tendering, pro project scheduling) is required.
3. There is also need to reassess the existing criteria and priorities used for allocation of funds to different sectors, for example, taking into account the growing need for peaking power rather than the base load capacity in the power sector, greater focus on rail and water transport, more demand-side measures in water rather than making huge investments in water supply augmentation. All this will require a macro-level approach and greater inter-Ministerial coordination.
4. **Commercialization of Investment Decisions is the Real Challenge.** The objective of early planners to arrive at some understanding of the contours of a desirable future remains valid in a market economy. But now the attempt ought to be to steer the economy with fewer and less dysfunctional instruments, or even to allow the economy to find its own way. This is the challenge of reform in the Indian context.
5. **Infrastructure and Economic Growth**. Infrastructure services also contribute to improved productivity of business, households and government services. The time spent obtaining water and fuel or traveling to markets and service centers is often significant. When household connections are available and transport and telecommunications services are accessible, household members, particularly women and children, can engage in more productive activities. The expansion in quantity and improvement in quality of infrastructure services also lowers costs and expands market opportunities for businesses. This contributes to increased investment and productivity which is essential for sustaining economic growth.
6. **Leverage Points for Change.** Change that starts small but attacks key leverage points of the system has great potential and may even have begun to occur. Ushering in markets and commercialization in infrastructure can build upon such changes to unleash the potential of the economy and its positive feedback effects on the state system. True reform would have such effects. With the economy growing at much higher rates than at present, .outsiders could soon become .insiders and the returns to corruption could dwindle considerably and the stakes (and capacities) of those who are victims could become high enough to ensure high costs to corruption. For example, the US was a very corrupt economy in the 1920s, but the economic dynamism of the 1920s gave rise to large-scale improvements in governance. Similar pressures are now at work in China, where campaigns, the patent response of the Chinese society to problems, have made examples out of corruption in high places. Corruption can then decline suddenly. That day may not be too far off in India, if it can shake off its current constraints to high speed inclusive growth.
7. **Risk assessment and implementation.** Good management means being able to anticipate the variety of risks. Different types of risks are: political, policy, force majeure: risks that nobody can help, market, performance, credit, competition, supply, time and cost overrun, operating and financial. One of the deterrents in India for proper handling of risks is the lack of healthy growth of the insurance sector. Internationally, the insurance sector provides cover for these kinds of risks. For whatever reasons, our opening up is slow. The existing insurance companies unfortunately are not that innovative enough to create insurance products to address some of these risks. So, this is an important issue that needs to be dealt with.
8. Regulatory and institutional framework: With the new concepts and approaches in infrastructure development and financing, an appropriate regulatory and institutional framework is essential to facilitate all the above activities.

CONCLUSIONS

India is at early stages of infrastructure development, and so the opportunities for carving out a low carbon development path are many. This IIR (2010) looks at "how" to build infrastructure in a carbon smart way, the challenges ahead and ways to overcome them.

The empirical strategy involves the estimation of simple equations for GDP growth and conventional inequality measures, augmented to include among the regressors infrastructure quantity and quality indicators in addition to standard controls. To account for the potential endogeneity of infrastructure (as well as that of other regressors), we use a variety of GMM estimators based on both internal and external instruments, and report results using both disaggregated and synthetic measures of infrastructure quantity and quality. The two robust results are: (i) growth is positively affected by the stock of infrastructure assets, and (ii) income inequality declines with higher infrastructure quantity and quality. A variety of specification tests suggest that these results do capture the causal impact of the exogenous component of infrastructure quantity and quality on growth and inequality. These two results combined suggest that infrastructure development can be highly effective to combat poverty.

These are some essential key points:

1. Manage infrastructure like a business, rather than a bureaucracy.
2. Involve competition directly if feasible, and indirectly if not feasible directly.
3. Give users and other stakeholders a strong voice and real responsibility. Here the selection of stakeholders is important.
4. Have public-private partnerships.
5. Finally, government will have a very important continuing role in the development of infrastructure where the role now shifts from not being actually in the creation, but being able to facilitate and structure projects rightly, to be able to tap into that tremendous entrepreneurial energy that exists in the country.

From the above analysis it can be observed that at the sector level of Indian economy infrastructure help us to raise the output, productivity and employment in some sectors.

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ISBN: 978-93-5051-662-1 PZZ 004