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# CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	<b>SOCIAL POWER OF WOMEN THROUGH SELF HELP GROUPS IN THE SOCIETY: A STUDY THROUGH NGO'S IN KARNATAKA</b> <i>DR. MUNIVENKATAPPA, DR. LAKHSMIPATHI. C.G &amp; T. NARASIMHAIAH</i>	1
2.	<b>THE INCIDENCE OF FRAUD POST SARBANES OXLEY ACT: A REALITY CHECK</b> <i>DR. P. N. SAKSENA</i>	6
3.	<b>THE IMPACT OF EMOTIONALLY INTELLIGENT INDIVIDUALS, WORK TEAMS AND MANAGERS ON ORGANISATIONAL EFFECTIVENESS</b> <i>DR. SANJAY PANDEY &amp; ARCHANA AGRAWAL</i>	10
4.	<b>STUDY OF CHALLENGES INVOLVED IN CLOUD COMPUTING FOR LIBRARIES</b> <i>DR. SHUBHANGI BHATAMBREKAR &amp; PALLAVI BULAKH</i>	18
5.	<b>IMPACT OF INSTITUTIONAL FINANCE ON MSME</b> <i>DR. J. MARY SUGANTHI BAI</i>	20
6.	<b>HEALTH AND NUTRITIONAL STATUS OF CHILDREN AMONG EMIGRANT HOUSEHOLDS IN KERALA</b> <i>DR. SHYLAJA L.</i>	25
7.	<b>A STUDY ON ORGANIZATIONAL CULTURE AND CLIMATE WITH SPECIAL REFERENCE TO HVF, AVADI</b> <i>K. RAVISHANKAR</i>	31
8.	<b>A STUDY OF TREND ANALYSIS OF SPOT AND FUTURE PRICES OF AGRICULTURAL COMMODITY GUARGUM</b> <i>RAKHI ARORA &amp; DR. BHUPENDRA SINGH HADA</i>	38
9.	<b>CSR AND EMPLOYEE'S ORGANIZATIONAL COMMITMENT: A STUDY OF INDIAN FINANCIAL INDUSTRY</b> <i>AMOGH TALAN</i>	42
10.	<b>EFFECTIVENESS OF THE FINANCIAL INCLUSION INITIATIVES IN INDIA</b> <i>SEEMA</i>	45
11.	<b>FOREIGN DIRECT INVESTMENT IN INDIA</b> <i>ARUNA SHARMA &amp; CHANDNI DUGGAL</i>	48
12.	<b>AN EMPIRICAL STUDY ON CONSTRUCTION OF OPTIMUM PORTFOLIO USING HARRY MARKOWITZ MODEL: A CASE STUDY WITH SPECIAL REFERENCE TO S&amp;P CNX NIFTY COMPANIES</b> <i>DR. JEELAN BASHA.V &amp; KHADRIYA BEGUM.N</i>	57
13.	<b>ASSESSING THE IMPLEMENTATION PRACTICES OF URBAN LAND LEASE POLICY ON URBAN TOWNS OF TIGRAI NATIONAL REGIONAL STATE, ETHIOPIA</b> <i>YIBRAH HAGOS GEBRESILASSIE</i>	67
14.	<b>AN ANALYSIS ON THE BOTTLENECKS AFFECTING TRANSPORT SECTOR ESPECIALLY WEIGHBRIDGES IN KENYA</b> <i>JACQUELINE SHEILA OMayio &amp; DR. OTIENO MOSES</i>	71
15.	<b>SUPPLY CHAIN MANAGEMENT FOR AGRICULTURAL PRODUCTS</b> <i>S.YAZHINI</i>	76
	<b>REQUEST FOR FEEDBACK &amp; DISCLAIMER</b>	79

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# SOCIAL POWER OF WOMEN THROUGH SELF HELP GROUPS IN THE SOCIETY: A STUDY THROUGH NGO'S IN KARNATAKA

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## ABSTRACT

*The Millennium Development Goals adopted at the millennium summit at United Nations in New York in 2000 include goals to "promote gender equality and empower women and to ensure environmental sustainability". These groups concentrate mainly on thrift related activities; they also address several issues through training programs and capacity building members of these groups gain knowledge about government programs, environmental issues, planning and credit management etc. In India some Non Governmental Organizations (NGOs) are working on empowerment of women through SHGs. They involve women's SHGs in development projects through focus on watershed management which is one of the important issues related to environmental management. The present paper intends to study experiences of some NGOs in Mysore district of Karnataka State. This study shows that there is a relationship between women's empowerment and environmental management and how women can become agents for the promotion of environmental sustainability.*

## KEYWORDS

NGOs, SHGs, Sustainable Development, Economic Aspect, Social Aspect, Environmental Aspect, Watershed, Management, Environmental Sustainability.

## 1. INTRODUCTION

Women empowerment is a global issue which has gained momentum in recent decades. Women have not been treated on par with men in any aspect of life through their role is crucial for the sustenance of family and society as well as for the development of economy as a whole. In view of bringing improvement in the socio-economic condition of women efforts were made to maximize the participation of women in different educational levels with the nation that education is the most important instruments being awareness about their rights social status as a prime element to maximize participation in different categories of remunerative employment etc.

Since the 1990s women have been identified as a key agent of sustainable development and women equality and empowerment are seen as central to a more holistic approach towards establishing new pattern and process of development that are sustainable. The World Bank has suggested that empowerment of women should be a key aspect of all social development programmes (WorldBanks 2001). The Millennium Development Goals recognize the need to promote gender equality and empowerment of women, the need to alleviate poverty and ensure sustainable environmental management. One of the targets for the goal on ensuring environmental sustainability is to "Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation" (UN 2002). In the field of international development, most of the key actors, including government, non-government, and multilateral organizations, have adopted the language of empowerment in their policy and practice (ADB 2001; World Bank 2002; World Bank Institute 2001). Empowerment signifies increased participation in decision-making and it is this process through which people feel themselves to be capable of making decisions and the right to do so (Kabeer 2001). Several of these agencies are emphasizing an involvement of women in the development projects, which leads to empowerment of women. There is a direct link between involvement and empowerment and they influence each other. Where empowered women participate in the projects effectively, the participation can lead to sustainable development. A World Bank evaluation of 122 water projects found that the effectiveness of a project was six to seven times higher where women were involved than where they were not involved. The results of involving women in the design and planning stages are multiple, from reducing corruption, increasing management transparency, better financial management and empowering women by example (WSSCC 2004). SHGs are an effective strategy for poverty alleviation; human development and social empowerment, as they are promoted by NGOs and are being recognized by financial institutions and the Government of India as powerful vehicles for empowerment of women through participation and employment generation (Puhazhendhi and Jayaraman 1999). Empowerment of women can help improve women's position in society. Many studies have shown that majority of people who participate in voluntary community work are women and their awareness, attitude, skill, capacity and sensitivity to environment makes them responsible to take action to resolve environmental problems. Some of the NGOs in Mysore district of Karnataka State, India, are working on gender issues, such as empowerment of women in development programmes. The majority are facilitating the process through SHGs. Involvement of SHGs in watershed management programmes as an environmental issue through training programs are making women as partners in environmental management. This paper makes an attempt to understand the efforts of some of the NGOs who work with women's SHGs focusing on water resource management through their participation in water related projects such as watershed development in Mysore district.

## 2. SELF HELP GROUPS IN KARNATAKA

In Karnataka SHG Bank linkage is emerging as popular and effective means of assisting the poorest among the poor, from a modest beginning of linkage of 114 SHG with Bank credit 5.73 lakhs during the 1992-93 the Stree Shakti programme was started in Karnataka in the year 2000-01 with a view to give special importance to the empowerment of rural women through SHGs. The state government through its women & child development (WCD) and the active involvement of aganawadi workers encourages and implementing stree shakti programme which is implemented in selective districts of the state through Karnataka State Women Development Corporation (KSWDC) to Strengthening Women Groups. The SHG Bank Linkage programme registered its progress in the

state of Karnataka during the year 2003-04 about 1,88,477 SHGs have been promoted by different Self Help Promoting institutions in the state on 31st March 2004. In Karnataka all the 21 DCCBs in the state are participating in the SHG Bank linkage programme. The major DCCBs were Bidar, South Canara, Hassan, Mandya and Tumkur as on 31<sup>st</sup> March DCCBs in Karnataka has financed about 12991.16 lakh rupees to SHGs.

### 3. EMPOWERMENT OF WOMEN AND SHG'S

Agriculture in India accounts for 37% of India's Gross National Product (GNP) and according to the National Sample Survey organization data, it employs 70% of the working population and about 84% of all economically active women (NSS, GoI 1991). But out of 168 million people estimated to be living below the poverty line, 60-80 million are women. Poor women in India, suffer from triple disadvantages of poverty, social backwardness (usually overlapping) and being women (DFID 2000). The Tenth Plan (2002-07) of India aims to continue with the process of empowering women through translating the national policy for empowerment into action with a three-fold strategy economic empowerment, social empowerment and gender justice. The use of the language of empowerment is on the increase across the social sciences. It can be found in the literature on management, sociology, health services, politics, as well as international development (Page and Czuba 1999). Empowerment involves people in an active role, not only in decision-making, but also an understanding of the factors that shape a situation, and the nature of oppression itself (Crawley 1998; Goetz 2001; Gujit and Shah 1998; Murthy 2001). In addition, the community psychology literature views empowerment in part as the building of self-knowledge and self-esteem of the individual to reduce 'feelings of alienation and enhance feelings of solidarity and legitimacy' (Asthana 1996). In order to empower women in India, SHGs were introduced during the mid- 1980s in Karnataka by Mysore Resettlement and Development Agency (MYRADA). It is interesting to note that SHGs with exclusive women members are more sustainable than those of men members. The term SHGs is used to describe a small group of 10 to 20 poor women who come together on voluntary basis to accumulate savings through thrift and self management, in order to prove their credit worthiness to financial institutions. The concept builds on mutual trust and help, shared ownership, peer pressure, emphasizing group solidarity and togetherness (Shashikala 2007). Over half a million SHGs have been linked to banks over the years but a handful of States, mostly in South India, account for almost 60% of this figure (Harper 2002; NABARD 2005). Andhra Pradesh has over 42%, Tamil Nadu and Uttar Pradesh have 12% and 11%, respectively and Karnataka has about 9% of the total SHGs in India (Chakrabarti 2004). Two vital processes have been identified as important for empowerment. The first is social mobilization and collective agency, as poor women often lack the basic capabilities and self-confidence to counter and challenge existing disparities and barriers against them. Often, change agents are needed to catalyze social mobilization consciously. Second, the process of social mobilization needs to be accompanied and complemented by economic security. As long as the disadvantaged suffer from economic deprivation and insecurity of livelihood, they will not be in a position to mobilize (UNDP 2001). It is assumed that increasing women's knowledge and access to micro-finance services will lead to individual economic empowerment through enabling women's decisions about savings and credit use, enabling women to set up micro-enterprises, and increasing incomes under their control. This in turn is assumed to enable women to initiate broader social and political changes.

Within the guise of poverty alleviation and empowerment, the financial sustainability paradigm assumes importance for the banking sector (Mayoux 2001). Some of NGO reports have shown that the record on the repayment of loans by women was often better than that of men, and that women were also more likely to use the income earned on their families, leading to improved health and nutrition of the poor population for improving the quality of life. The wisdom of crediting to men as heads of households also changed with the realization that women's participation in economic production had been greatly underestimated, as women were engaged in small scale activities in the informal sector which were difficult to capture statistically (Shashikala 2007; Simanowitz and Walker 2002). Malhotra et al. (2002) constructed a list of the most commonly used dimensions of women's empowerment, drawing from the frameworks developed by various authors in different fields of social sciences. These frameworks suggest that women's empowerment needs to occur along multiple dimensions including economic, sociocultural, familial- interpersonal, legal, political, and psychological. Since these dimensions cover a broad range of factors, women may be empowered within one of these sub-domains. They give the example of "socio-cultural" dimension which covers a range of empowerment sub-domains, from marriage systems to norms regarding women's physical mobility, to non familial social support systems and networks available to women. In a comprehensive study, Pitt et al. (2006) use Item Response Theory (IRT), where the element of analysis is the whole pattern of a set of binary indicators that proxy for woman's autonomy, decision-making power, and participation in household and societal decision making. They find that credit programs lead to women taking a greater role in household decision making, having greater access to financial and economic resources, having greater social networks, more bargaining power vis-à-vis their husbands and having greater freedom of mobility. Hashemi et al. (1996) investigated the change in women empowerment with the help of an ethnographic study and quantitative survey. The analysis studies 1,300 women to measure the effects of Grameen Bank and Bangladesh Rural Advancement Committee. They created an empowerment indicator built on the following eight criteria: mobility, economic security, ability to make small purchases, large purchases, involvement in major household decisions, and relative freedom from domination by the family, political and legal awareness, participation in public protests and political campaigns. The core elements of empowerment have been defined as agency (the ability to define one's goals and act upon them), awareness of gendered power structures, self-esteem and self-confidence (Kabeer 2001; Monkman 1998). This awareness occurs through the social cohesion the group brings and the local networks to which the group exposes its members (Campbell and Jovchelovitch 2000). Thus, an important aspect of SHGs is the implicit assumption that through participation in the groups, women will gain, generate and acquire power, and improve their 'position' within the family and the society (Mazumdar 1986). Social 'position' or status of women is an aspect of positional power that refers to the power or authority assigned to specific positions and roles in a society (Stamm and Ryff 1984).

### 4. SHGs AND ENVIRONMENTAL MANAGEMENT

Research and policy has tended to focus on the relationship between poverty and environmental degradation in terms of pointing out that the poor are both victims and agents of environmental degradation. They are victims in that they are more likely to live in ecologically vulnerable areas, agents in that they may have no option but deplete environmental resources thus contributing to environmental degradation. As a result of increasing awareness, social conditions and poverty alleviation, are necessary to support environmental sustainability (SIDA 1996; Leach and Mearns 1991; UNEP 1995). Today SHGs have a role to play in poverty alleviation through empowerment of women in India. Moreover, women tend a greater involvement in environmentally sustainable activities and environmental management than men. Therefore, involvement of women in development programmes through SHGs can effectively increase awareness of society to ward environmental sustainability. In the Final Report of the International Consultation to Advance Women in Ecosystem Management has stated that: 'There is a natural convergence of interest between the needs of women and the need to conserve natural resources and environment. Women maintain a rich storehouse of technical environmental knowledge, which can be mobilized in the problem-solving process. In addition to their profound knowledge of fragile ecosystem management and sustainable resource use, women have a remarkable ability to work together and in taking care of children. Women also have a powerful influence over future attitudes towards the environment' (International Consultation 1993). Women are organized as collectives towards the overall goal of achieving gender equality as well as sustainable, comprehensive community development (Purushothaman 1998). The United Nations in 2001 emphasized that a sustainable development that does not involve women will not succeed in the long run. Especially in the context of sustainable development aimed at improving social, economic, environmental aspects as women play a vital role in all of these. It emphasized the importance of women's role in environmental management, especially in water resource management. International initiatives, such as the International Drinking Water Supply and Sanitation Decade and the United Nations Conference on Environment and Development (UNCED), have been instrumental in promoting the role of women in the protection of natural resources as well as in water management (Verhasselt 1998). The Watershed Guidelines issued by the Government of India in 1994 have encouraged the greater participation of women and marginal groups. However, their implementation continues to be hindered by believes that watershed development is land development for landowners. Women are often not recognized as members of the watershed community in their own right, but are viewed as being there to fill the quota which the Guidelines outline. The genuine representation of marginal farmers, the landless and women in the committee should generate a process that is as concerned with water and common pool resources as with private land management (Seeley et al. 2000). Mukherjee (1999) reported the contribution of SHGs in watershed development projects in Karnataka where NGOs have been involved as follows:



1. SHG members were willing to contribute 10 to 33 per cent of the amount required for agreed work of soil conservation. The SHGs also agreed to maintain the soil conservation structures out of their own funds. 2. Reduction in unit costs up to 50 per cent was achieved for structures at the initiative of SHGs and women's SHGs and landless were formed in addition to the usual SHGs. The MYRADA's experience has shown that there are three important objectives in watershed management namely, Productivity, Sustainability and Equity. It is also clear that people are unable to pursue all these three objectives at the same time. Experience in several micro-watersheds indicates that the objective of equity was difficult to achieve and that it was even more difficult to sustain for example the discussions were initiated and dominated by the farmers with holding in the lower reaches who were seated in front of the group; they also belonged to a higher caste than the others. It was here that MYRADA's SHGs concept become relevant within watershed management content. SHGs can play a significant role in promoting equity and self-reliance and in developing the supporting systems required for and institutions to survive. Today the place of the SHGs in watershed strategy is accepted. They were called "socially viable groups" (Fernandez 2003). Moreover, 'Social sustainability' is the term used to refer to the social conditions necessary to support environmental sustainability (Hardoy et al. 1992). As shown in Figure 1, the watershed management is one of the aspects of the environmental management where sustainability, productivity and equity are the three important objectives in development.

## 5. METHODOLOGY

Important objective of this work is to study the efforts of some NGOs who work with women's SHGs and address environmental issues. Data were collected through focus group discussions from unstructured and structured interviews with SHG member and participating NGOs on their various accountability relationships. Typically three NGOs were selected as case studies on empowerment work were working with SHGs in watershed management as an environmental issue. This paper is based on interview and personal discussion with some of NGOs who were involved with women's SHGs in environmental management through their projects in Mysore district. The paper addresses the following questions: 1. What are the responses of women's SHGs to the empowerment of women? 2. How are the NGOs addressing environmental issues through SHGs? 3. How these women can be motivated to take up environmental management? The experiences of three important NGOs working with women's groups which are addressing environmental issues through the implementation of watershed development program are presented in following. The NGOs are MYRADA (Mysore Resettlement and Development Agency), ODP (Organization for the Development of People) and Sumana (in Sanskrit it means goodwill).

## 6. THE CASE STUDY IN "MYRADA"

MYRADA is a Non Governmental Organization managing rural development programs in three States of South India namely, Karnataka, Tamil Nadu and Andhra Pradesh and providing on-going support including deputations of staff to programs in six other states. MYRADA was started in 1968 mainly for the resettlement of Tibetan Refugees. Later on it has taken up several programs for rural development. It also promotes the Self Help Affinity strategy in Cambodia, Myanmar and Bangladesh. Through its various programs MYRADA reaches out to people in various districts of Karnataka, Tamil Nadu and Andhra Pradesh. While the objective is to help the poor to help themselves, MYRADA achieves this by forming Self Help Affinity Groups (SHGs/ SAGs) and through partnerships with NGOs and other organizations. MYRADA is committed to doing its part in contributing to achieve the Millennium Development Goals (MDGs). Promotion of Gender Equality and Empower Women and Ensuring Environmental Sustainability are some of the important goals that MYRADA is focusing. MYRADA's has experience in several similar watershed projects implemented on (95, 000 ha) and learning have been drawn particularly from a SUJALA (name of project) and Karnataka Watershed Development Society (KAWAD) in which several innovations have official watershed strategy by Government Departments managing these projects. Both are watershed projects of the Government of Karnataka in which MYRADA is involved in not only implementation but also in providing professional support in specific areas (Fernandez 2003).

## 7. THE CASE STUDY "ODP"

ODP is a Non Governmental Organization in Mysore Diocesan Service Society, which was registered under Karnataka Societies Registration in 1984. ODP is a voluntary non-profit organization aimed to enable community based people's groups to become self-managed and self-reliant. The most important ODP's goal is integrated human development and change in attitudes and value systems. This organization is working about women empowerment and natural resources management in the four districts of Mysore, Mandya, Kodagu and Chamarajanagar. The primary focus of the women empowerment program is the social, economic, cultural and political development of women to achieve equality and social justice. In 1989-90, poor and marginalized women in our working area started coming together to discuss common issues affecting them and to find solutions to these issues. There were about 30 women groups formed with nearly 120 members, which today have grown to encompass more than 17000 women in 725 women groups. As for Natural Resource Management (NRM), ODP shares a very keen concern for the survival of ecology and at present four watershed programs are going on at Martalli and five areas of Kollegal. There are more than 36 watershed committees in 17 taluks of 4 districts of Mysore, Mandya, Kodagu and Chamarajanagar with more than 1250 farmers and NRM programs are running for the protection, preservation, enhancement and management of soil, water, vegetation, biomass and energy of poor, needy and marginalized families, through responsible conservation, preservation and management of renewable natural resources sustainable development. The interventions of the ODP aimed at the empowerment of women through SHGs which helped in promoting increased woman participation in a democratic way through the panchayat system so as to give a voice to women in politics. All these activities have empowered them economically, socially, and politically (without joining any political party or its ideology). The ODP has involved women in the watershed committees in their watershed implementation programs. Representatives of SHGs are members of Watershed Committees which take decisions regarding the implementation of the projects. In the ODP, in order to sustain the NRM programs a movement of people for protecting and managing natural resources, a farmers co-operative has been formed called GRAMA VIKASA SWASAHAYA SANGAGALA MAHAA OKKUTA (GVSSMO) with the aim of "A holistic life in village through Awareness, Unity and Self Employment by 36 SHG's from 4 districts. Also, in response to the appeals received from several dry and drought prone areas of our working area for drought proofing measures, watershed programs were planned to enable poor, migrants and tribal to become self-reliant by way of livelihood support and food security. It is also planned to actively involve women's Self Help Groups and women members in the watershed programs which in turn will increase their status.

## 8. THE CASE STUDY "SUMANA"

'Sumana' is a Non Governmental Organization that works with rural women and children. It became operative in 1989 and is among the few NGOs in the state that have been promoted by and are headed by a female. 'Sumana' is apolitical and secular in its dealing with and services provided to the people, especially the rural women. Sumana accepts the fact that collectivism is a major instrument of empowerment and social change, but exploiters abhor communal harmony and hence follow the divide and rule system. Of the 3000 women working in about 250 SHGs, more than 90% of the members are women. The goal of 'Sumana' is to extend an empowering hand to the poor in the rural areas with special attention to the rural women and children in the poverty sector. 'Sumana' involved women through projects and training programs in 50 villages 9 in Ramanahalli, 15 in Srirangapatna, 14 in Mellahalli, 12 in Nagawala in Mysore district. 'Sumana' involved women's Self Help Group in watershed projects in some areas such as Vajamanala. They have also taken up watershed programs with the Department of Watershed, Government of India. This program is being implemented in 11 villages in the district. In addition one of their achievements is Mahila Shakthi Okkutta (MSO) which is a federation of the various Self Help Groups both at the village level and at the organizational level, is meant to identify and handle social issues pertaining to the different villages which is the hallmark of 'Sumana's' drive towards collective action. The MSO is an independent body managed by elected representatives and works to solve social issues relating to member groups and villages.

## 9. RESULTS

### THE WOMEN'S RESPONSES

The data that were collected on empowerment have shown the changes that women have experienced in their life after joining the SHG's. The women interviewed belong to the SHGs and became involved through the NGOs and were selected as case studies. A range of open-ended questions were used to find

out, what the women had learned, how they had benefited and how their life had changed due to the SHGs. A majority of the responses emphasized that there were noticeable changes in their life. They described it as a change in both community and family decision-making levels. Table 1 summarizes the number of responses identified, as to whether they had financially benefited or have a feeling of satisfaction through social activities or both and also if they were interested for participation in some of the activities through the SHGs.

TABLE 1

No. of Respondents	Financially benefited	Feeling of satisfaction through social activities	Interested participation
130	121	57	102
100	93%	43%	78

The Muslim women emphasized 'They didn't have any permission from their husbands to go out of their homes or to participate in some of the social programs. But when their husbands became sure about the women's ability to obtain credit from banks and financial benefits through women's SHGs, they then permitted their wives to participate in any program related to SHGs and now these Muslim women are able to be involved in community development programs'. This shows SHGs not only help them save money through credit, but also help them learn something about women's rights through participation in social activities. One respondent that joined SHGs through MYRADA stated 'The SHGs helped them to take out loans and thus buy an auto for her husband who is now as a result self-employed as an auto driver. She claimed "I am satisfied because, we are able to repay our loans." The other problem is alcoholism among the men-folk for example, Mrs. Rathamma who was born in a very poor family and her husband is an alcoholic, joined SHGs through the ODP: She was motivated to cultivate a kitchen garden with vegetables, medicinal plants and also fruit bearing saplings. The lime tree which she planted started yielding. She then started saving her income. She also managed to repay the loan taken by her husband. She takes pride in saying 'I do not have to depend on anyone. I am self-reliant and self sufficient. Thanks to the awareness and encouragement received as a member of women's SHGs. Today I am so happy and so is my husband too. He is a changed person'. Women's Self Help Groups (WSHGs) have encouraged saving money and the increase in income has allowed the poor women to be able to prioritize their requirements and to fulfill them. The NGOs involved the SHGs in many training programs and it also facilitated the learning of generic skills such as bookkeeping. This has allowed women to change from being wage workers to being self-employed. Women have also gained the option to pursue two or three petty businesses, to change from one type of business to another, and to combine wage employment with small business. It has increased their entrepreneurial skills, for example, Jayamani has two children and she said 'My family was depending on money lenders for the investment money. We had to pay 5% interest per month for the amount we borrowed, so we could not send our children to school or for higher education. After I joined SHGs, I got into the income generation scheme and we bought a second hand silk reeling wheel which has provided employment to four people in the house and now my children are going to school'. The financial mobility due to participation in the SHG has led to an improvement in the quality of life, according to some of the successful groups. Overall, many families were able to address their basic needs better than before. Some of NGOs reports have shown that the record on the repayment of loans by women was often better than that of men, and that women were also more likely to spend the income earned, on their families, leading to improved health and nutrition of the poor population and for improving the quality of their lives. One woman in response to the question on change referred to the fact that 'she hadn't power and authority within the household, but that SHGs programs had emboldened her and helped her gain a voice'. The focus on women's rights and awareness of their inner power is an attempt to produce a new subjectivity and identity for the women, which is a form of a politicized woman (Berry2003). The responses showed that they were satisfied because they have learned about their rights. Studies about women's SHGs have shown that whenever they became involved in some of the training programs, the strongest impact has been in terms of self-esteem and increased social mobility as many women of urban slums had never attended such a program before. One of the elderly women described it as 'I was sick and couldn't get treatment because I didn't have 36 FARZANEH SHAIKH KHATIBI AND M. INDIRA rises the number of responses identified, as to whether they had financially benefited or have a feeling of satisfaction through social activities or both and also if they were interested for participation in some of the activities through the SHGs. problem and also I couldn't state my problem to others even when I joined SHGs through 'Sumana'. Then the women's SHGs helped me to be cured and now I help 'Sumana' manage some health programs'. Now they are able to meet each other and discuss their problems. They understand each other's viewpoints and problems. Interaction with other women has resulted in building congenial relationships and has ensured fewer conflicts. It has also had the multiplier effect of spreading the SHG movement. Awareness of health related issues, personal hygiene, communicable diseases; effects of malnutrition, environmental issues, and sanitation have also increased as a result of training programs and their participation in the related projects. Mahadevamma has two children and she joined the SHGs through 'Sumana'. She explains 'I was encouraged to attend the training and awareness programs organized by 'Sumana'. Then I became the first president of Mahilla Shakhi Okkutta (MSO). After that I worked as an animator, and now am employed as a full time staff of 'Sumana' and have managed more than 20 SHGs'. As part of the political empowerment process, it is a pertinent fact that many women have not only been elected to the Grama Panchayat but have become the role holders too. For example, Nagamma joined the women's SHGs promoted by Sumana in 1997. 'She was the first secretary of the group and has held several offices at the MSO level. Her husband was a farmer; she obtained financial assistance from her SHG and purchased a bike-set for her husband. This activity has sustained the family till date and they are living happily. She attended several of the socio-economic and political education sessions through 'Sumana', for the purpose of contesting the election to the Grama Panchayat. At first she was reluctant but was later motivated by several other factors that were favorable to her especially her rich knowledge of social issues which helped her defeat her nearest male rival by a wide margin and today she happens to be the vice president of Ramanahalli Grama Panchayat'. In a majority of the cases, the women perceived themselves as now having some influence over decisions in the political life of village, and in a smaller number of cases, the women named their participation and influence in village political life as an important and note-worthy change.

## 10. DISCUSSION

Studies of experiences of three NGO's in Karnataka State have shown that all of them are working on empowerment of women through SHGs with emphasis on social, economic and political aspects. But MYRADA is working with SHGs more than the others on watershed management as an environmental issue and SUMANA involved women's SHGs lesser than the others on this issue. MYRADA's experiences in watershed projects have shown that there were no women present initially, but as the meeting went on they strolled in, more as inquisitive bystanders than as participants and now women's SHGs are so active in watershed management (Fernandez 2003). MYRADA believes that it is incorrect to reach the people to fish when they cannot even reach the river due to several obstacles on their way. These obstacles were based on dependency for jobs and loans and on social compulsions arising from both caste and community (Fernandez 2003). Also "equity" is one of the most important goal if the objective of "equity" was not sustained, the pressures eroding the management of watershed's resource and therefore of sustained productivity tend to increase thus diminishing returns in the long run. Because of SHGs they are able to promote "equity" through empowerment of the poor and marginalized. Therefore NGOs need to develop a culture which will stabilize the growth of credit management group (CMGs) not just as organizations as institutions which develop and accept higher norms of behavior pattern. In MYRADA's watershed projects, SHGs are formed at least 4 to 6 months before the watershed program commences; the members have participated in several capacity building sessions before being involved in watershed management. Besides, the management of saving and credit itself is instrumental in confidence and skill building. Successful management of their common fund gives the groups enough confidence so that they can achieve certain objective provided they were willing to observe certain rules and create a culture that motivates people to support each other (Fernandez 1994). The ODP has taken up a number of environment programs to alleviate the above situation for poor farmers in the ODP's working areas. Through land measures, conservation of natural resources, community irrigation, bore wells, nursery raising, planting of trees, construction of check dams and desalting of ponds, ODP has enabled poor families increase the cultivable area and crop productivity and reduce waste levels and numbers of employment days to a limited extent. However, much more important is that equitable arrangements need to be worked out which entitle poor people to there generated natural resource base for which they have to be motivated. The involvement of women, who form more than 60% of the agricultural working force, needs to be taken up in a big way. Women must and should be incorporated in all programs concerning the environment. Women's development has to go beyond the economic and place emphasis on issues relating to equality, autonomy and self reliance at the individual level and on solidarity of the community of women at the group level (Hardiman and Midgley 1982; Dube 1988; Pieterse 2001).

Also, experiments of NGOs in watershed projects shows that whenever women are involved in projects, they influenced their family members so that their family members also participated in projects and thus got benefited. Building capacity to increase the understanding of gender implications for water management as part of an effort to empower women so that they can acquire the skills to enter water management at a senior level is essential. This involves an increase in technical and scientific education offered to women (Lundqvist 1994).

## 11. CONCLUSION

Case studies of several watershed programs indicate that the existing government delivery mechanism is not just inadequate, as it is inappropriate to achieve the effective participation of people to build their institution and to ensure sustained development and an equitable sharing of benefits. Analyze the impact of several Government guidelines related to watershed management in the people's institutions where has emerged role of NGOs in watershed programs, and experiences have also shown that it is the NGOs which have the skills, freedom and institutional space to form these participatory institutions. They must therefore be involved from the beginning in the watershed program. Today NGOs involved SHGs in watershed management and SHGs not only have a vital role in empowerment of women but also SHGs are accepted in watershed strategy through the Government of India. The Government of India has recognized the role of SHGs in watershed management and the focus on women's participation in watershed development is not an isolated issue in present day India. SHGs find a place in Hariyali (the Government guidelines related to watershed management on the people's institution through NGOs in April 2003) and are placed as institutions below the User Groups. Their main objective is to promote the interests of the landless, Scheduled Castes (SCs), Scheduled Tribes (STs) and women; there is no mention about the role they need to play to influence the decision taken in the Gram Sabhas or in the User Groups related to watershed programs; there is no provision for their membership in the User Groups or in the Panchayati Raj Institutions (PRIs) when their watershed are discussed. Though the SHGs generate positive impact on the rural economy through empowering women and enhancing the rural income of those participant households, the issue of group size has been of long standing concern. It needs further investigations with specific reference to the watershed context (Joy et al. 2004). The primary objectives of SHGs are to promote "equity" through empowerment of the poor and marginalized, and to provide livelihood support (credit, skills and marketing). Several studies indicate that the SHGs play a key role in introducing the objective of equity in watershed programs. However, empowerment of women through women's SHGs can be good opportunity for the NGOs to involve women in environmental management to attain Sustainable Development through training, sensitization and mobilization using Participatory Rural Appraisal (PRA) methods and community development. During meetings of watershed programs women should be given a chance to facilitate. Men have played this role for a long time hence they should have the skills to transfer to women. Facilitators need to assure men that this is not aimed to take away power from them but to empower women as well. Because of the high level of illiteracy among rural women local languages must be used (Cosway 1997).

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## THE INCIDENCE OF FRAUD POST SARBANES OXLEY ACT: A REALITY CHECK

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### ABSTRACT

*The Sarbanes–Oxley Act (SOX) became law in 2002 after the discovery of significant fraudulent activity on the part of officers of several corporations (Enron, WorldCom, Adelphia, etc.). The goal of the law was to stem the tide of continuing fraudulent behavior, tighten governance and make it more costly for individuals if they were involved in frauds. Unfortunately, it doesn't look like the goals of SOX were achieved, and the spate of significant frauds have continued with frauds involving major banks and corporations (HealthSouth, Lehman Brothers, AIG, Madoff Securities, etc.). These continuing significant frauds led to the passage of additional regulations, in the form of the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010 (Dodd-Frank Act). This paper discusses SOX, subsequent frauds and the Dodd-Frank Act. In conclusion, it points to the inability of laws and regulations, by themselves, to prevent fraudulent behavior. It suggests that we need to focus on the dangers of unbridled greed and on preventing the invention of fancy derivative investment instruments that few people understand but many trade since no one wants to be left behind in the often believed unlimited profit potential of the markets.*

### KEYWORDS

Corporate Governance, Fraud, Sarbanes–Oxley Act.

### INTRODUCTION

The Sarbanes–Oxley Act (SOX) became law in 2002 after the discovery of significant fraudulent activity on the part of officers of several corporations (Enron, WorldCom, Adelphia, etc.) (Public Law 107-202, 2002). The goal of the law was to stem the tide of continuing fraudulent behavior, tighten governance and make it more costly for individuals if they were involved in frauds. Its goal was to create an environment that would reduce the incentive for individuals to engage in fraud, with greater oversight, more accountability and meaningful penalties for illegal behavior.

Unfortunately, while SOX included a long list of regulations and requirements, it did not stem the tide of 'significant' frauds. Unbridled greed and creative financial instruments, with a belief that the only way the economy could go was up, led to another wave of significant financial debacles, leading to the worst economic downturn in the U.S. since the great depression. This, in turn, led to further regulations being passed, through the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Public Law 111-203, 2010).

This paper flows as follows. The next section is a review of literature which discusses the Sarbanes-Oxley Act, including a brief discussion of its eleven titles. Following that, there will be a discussion of a few significant frauds that occurred in post SOX years. The section after that discusses the Dodd-Frank Act and its sixteen titles. The final section of the paper is the conclusion section, which discusses the dangers of unbridled greed and the consequences of inventing fancy derivative instruments that most people don't understand but trade just so they don't get left behind with the hope of making a quick profit.

### REVIEW OF LITERATURE

#### SARBANES-OXLEY ACT

The Sarbanes-Oxley Act of 2002 (SOX), known as the Public Company Accounting Reform and Investor Protection Act in the Senate, and the Corporate and Auditing Accountability and Responsibility Act in the House, was signed into law on July 30, 2002. The law was in reaction to significant fraudulent activity that was revealed in major corporations including, Adelphia, Enron, Tyco International and WorldCom, in the late 1990s and early 2000s. These frauds, along with others, revealed a corporate environment that was riddled with systemic problems, some of which are detailed below.

#### ISSUES

**External Audit Firm Issues:** The external auditing profession had prided itself in self-governance. Leaders within the profession convinced regulators that its self-regulation was effective, that members were ethical and independent in their decision-making and that there was no conflict of interest when the same firm offered consulting as well as audit services. Lawmakers, based on the evidence, felt that self-regulation had not worked and the same firm offering audit as well as consulting services was a problem that needed to be fixed.

**Board of Director Issues:** Companies where fraud was discovered had Boards lacked independence, expertise or both. Competence and independence are of primary importance since the Board is responsible for governance at the highest level, one example being that the audit committee of the board has to understand the complexities of the audit function and be competent to communicate with both the audit firm and upper management.

**Executive Compensation Issues:** Stock and bonus options for upper management were initially celebrated as ideas that would minimize agency costs and put manager incentives and behavior in line with those of owners (Jensen and Meckling 1976). However, given significant stock price movement, for insignificant earnings shortfalls, and since stock options were not considered to be expenses, managers were extremely aggressive when it came to 'cooking the books' to meet their target numbers.

**Security Analyst Issues:** In addition to audit firms' conflicts arising from them offering audit and consulting services, security analysts were in an awkward position since their banks' investment banking division's business depended on their recommendations of the client company's stock. They faced pressure to recommend the stock, even if they had concerns, because it had an impact on whether or not the investment banking division got business or not.

#### SOX TITLES (Public Law 107-202, July 2002)

SOX has eleven titles that cover a wide range of issues that were identified as weaknesses in the frauds before its passage.

**Title I (Public Company Accounting Oversight Board)** discusses the creation of the Public Company Accounting Oversight Board (PCAOB). The title discusses the process of audit firm registration with the Board; auditing, quality and standards and rules related to independence; inspection of and investigation and disciplinary proceedings against accounting firms; foreign public accounting firms; SEC oversight over the Board and accounting standards.

**Title II (Auditor Independence)** addresses auditor independence. It addresses, among other things, reporting requirements, partner rotation, new auditor approval requirements and establishes standards for external auditor independence. It also addresses the restriction that external audit companies cannot provide non-audit services to their clients.

**Title III (Corporate Responsibility)** addresses corporate responsibility. It covers issues related to public company audit committees, to what would be construed as improper influence when completing audits; the forfeiture of certain bonuses and profits; officer and director bars and penalties; professional responsibilities for attorneys and fair funds for investors. One significant requirement in this title is that it mandates that the CEO and CFO need to sign the financial statements to ensure accountability and responsibility.

**Title IV (Enhanced Financial Disclosures)** addresses internal controls, among other issues. It addresses disclosure of periodic reports; conflict of interest provisions; disclosures which relate to management and principal stockholder transactions; the need to audit management assertions of internal controls; senior financial officer code of ethics; review of real time and periodic disclosures by issuers. The title discusses issues such as off balance sheet financing and the timely disclosure of material changes in financial position.

**Title V** (Analyst Conflicts of Interest) discusses analyst conflict of interest.

**Title VI** (Commission Resources and Authority) discusses the appearance and practice before the SEC; conduct of securities analysts; penny stock bar imposed by federal courts; and associated person qualifications of brokers and dealers.

**Title VII** (Studies and Reports) discusses a Government Accountability Office report on the consolidation of public accounting firms; SEC reports on credit rating agencies; and a variety of studies and reports on enforcement actions and on investment banks.

**Title VIII** (Corporate and Criminal Fraud Accountability) addresses penalties for alteration of documents; the statute of limitations for securities fraud; federal sentencing guidelines for extensive criminal fraud and for obstruction of justice; whistle-blower protection; and criminal penalties for defrauding shareholders of public traded companies.

**Title IX** (White-Collar Crime Penalty Enhancements) discusses penalties for committing fraud including those for conspiracies to commit criminal fraud offences, mail and wire frauds, violations of Employee Retirement Income Security Act of 1974; and corporate responsibilities for financial reports.

**Title X** (Corporate Tax Returns) discusses the requirement that that chief executive officers needs to sign the company tax return. Finally,

**Title XI** (Corporate Fraud and Accountability) discusses implications of tampering with a record or impeding an official proceeding; changes to the federal sentencing guidelines; SEC authority to prohibit people from serving as officers or directors; increased criminal penalties under the SEC act and retaliation against informants.

As is evident from the discussion of the SOX titles above, the sweeping legislation addressed issues that had emerged as being significant as they related to the major frauds at the end of the twentieth and beginning of the twenty-first centuries. However, unfortunately, the detailed legislation did not deter from individuals in organizations from committing fraud. The next section includes a discussion of an organization and an individual that were caught committing fraud. The result, of these and other frauds, led to the most significant recession since the Great Depression.

#### **SIGNIFICANT FRAUDS, POST SOX**

Despite the passage of SOX, significant, expensive frauds continued to take place in the United States investment sector. Two frauds are discussed next. The first one was committed by individuals in an organization (Lehman Brothers) while the second one was allegedly committed by one individual (Madoff Investment Securities). The purpose of the discussion is to show that legislation and regulation, by themselves, have never been enough to prevent self-interested behaviors on the part of individuals. It also shows how expensive fraudulent behavior can be, both for individuals and their future, as well as for the United States and world economies.

#### **LEHMAN BROTHERS**

Lehman Brothers was a global financial service powerhouse before its bankruptcy in 2008. When it filed for bankruptcy, on September 15, 2008, it had about \$700 billion in assets, making it the largest corporate bankruptcy in the United States (Knapp 2013). It was ranked number four in investment banks and had an impressive array of products that it sold to its varied clients. Lehman had significant exposure to the sub-prime mortgage investment securities which led to it using creative off-balance sheet devices (Repo 105 and Repo 108). They used the sections to create a financial position that looked a lot better than it really happened to be. They 'fixed' ratios that analysts and investors were most interested in and continued until its exposure was so significant that it could not sustain itself.

Lehman Brothers started doing business as a small retail store in the mid-1800s, but by early twentieth-century the firm became an investment bank. It ended up underwriting several major corporations, including Macy and Company and Sears, Roebuck and Company (Knapp 2013). By the end of the twentieth-century Lehman Brothers found itself being a major organization and player in the financial derivatives market. The company had experience with different types of derivatives and profited from them. This gave them the confidence to trade in residential mortgage-backed securities (RMBS); making them the largest producer of this instrument by 2004 (Knapp 2013). The United States economy was growing rapidly and the housing market was booming (1995 to 2005), causing the RMBS market to be robust and profitable. However, once housing prices began to fall, in late 2007, the value of RMBS securities plunged precipitously. The result was that, at the end of 2007, Lehman Brothers owned almost four times in this asset, as it had in stockholders' equity (Knapp 2013).

Lehman had strong earnings for a handful of years, leading up to 2007. Officers of the company enjoyed big bonuses and the company received positive press for its strong results. Financial officers in the company recognized the particular ratios that analysts were focused on and they decided to 'manage' them in order to keep the sham of strong financial results (Knapp 2013). They turned their attention to repurchase or 'repo' transactions to do this. These were complicated transactions and their accounting treatment wasn't very clear. Lehman faced difficulty in getting law firms in the United States to agree on the treatment that would be to their benefit; so they reached out to the United Kingdom where they found a law firm that agreed to see the transactions their way (Knapp 2013).

The bankruptcy showed that, while SOX was law with a lot of titles, it was possible for an organization to be creative and to commit fraud that would have an impact on the economy of the United States and of the world. It showed that various parties involved in corporate governance were in a bubble and acted in a self-interested manner. It also showed that complex rules, which are open to interpretation, have the potential to lead to expensive lessons.

#### **MADOFF INVESTMENT SECURITIES**

Bernie Madoff was a respected investment expert on Wall Street. He used his leadership position to setup and run a Ponzi scheme which ended up costing trusting investors tens of billions of dollars. He promised and delivered unrealistic and untenable results which no one else could replicate, even in theory. Madoff was helped in his fraud by an ineffective accounting firm that supposedly audited his books and certified his statements. It also helped that Madoff had contacts in the Securities and Exchange Commission, since this helped him keep the regulators and investigators away from the company and its transactions (Knapp 2013).

Bernie Madoff had one goal, and that was to be rich (Maccabee 2009). Madoff started with a nest egg of about \$5,000 and by the time his fraud was exposed, he had accumulated about one billion dollars (Knapp 2013). Madoff started small but was disturbed by the control and power that large firms had on Wall Street. He wanted to democratize the trading process and he spent significant resources to use technology to help with trading. He was also recognized as one of the founders of the NASDAQ stock exchange, serving three one-year terms as its chairman (Knapp 2013).

In the early 60s Madoff added investment advisory services to his portfolio and this led to him courting investors so he could manage their investments. He managed to provide consistent returns of 10 to 15% each year which led to his assets under management to around \$65 billion by 2008. There were a number of concerns raised about Madoff's returns but, given Bernie's connection and respect, nothing was done to question his returns and tactics (Knapp 2013). In the end it was revealed that Madoff investments was a Ponzi scheme and it led to several investors and pension funds losing their entire savings.

These two examples show that frauds remain a very real part of the United States economy and that they have the potential to significantly impact the financial stability and structure of the entire financial system (across the world). As a result of the financial crisis, the United States Congress swung into action and worked on and passed the Dodd-Frank Act (discussed next).

## **REACTION TO FRAUDS AND THE GREAT RECESSION**

### **DODD-FRANK ACT**

The Dodd-Frank Act of 2010, known as the Dodd-Frank Wall Street Reform and Consumer Protection Act, was passed in the Senate on May 20, 2010 and was passed by the House of Representatives on June 30, 2010. It was signed into law on July 21, 2010 by President Obama. The Act represents financial reform with its goal being to regulate financial markets and to reduce the likelihood of another economic crisis. The Act addressed a number of issues, some of which are detailed below.

#### **ISSUES (Amadeo 1.)**

**Lack of Oversight of Credit Cards, Loans and Mortgages:** The Consumer Financial Protection Bureau was created under the U.S. Treasury Department. Its goals include overseeing credit reporting agencies, credit and debit cards and a number of types of loans (except auto loans); it requires borrower's to understand risky mortgage loans, and banks to verify mortgage borrower's job status, income and credit history. The lack of such regulation led to sub-prime mortgages being issued.

**Lack of Oversight of Wall Street:** The Financial Stability Oversight Council was created which is chaired by the Treasury Secretary and has nine members. Its goals include overseeing hedge funds and other non-bank financial firms and to recommend that the Federal Reserve regulate organization if they get too big. Such oversight did not exist and it ended up creating organizations there were deemed 'too big to fail.'

**Banks Gambled with Depositors' Money:** A conflict of interest played a role in causing the Great Recession. Banks used their funds on deposit to own hedge funds for their own profit. The Volker Rule (Amadeo 2.) prevents banks from owning or investing in hedge, private or other proprietary funds for their own profit. The Act gave banks up to seven years to divest the funds, while still allowing them to keep the funds if they are less than 3% of revenue.

**Unregulated Risky Derivatives:** The financial debacle happened because a number of investors did not understand the risk they were taking that was attached to investments in risky derivatives (e.g. credit default swaps). The Act recommends that the Securities Exchange Commission or the Commodity Futures Trading Commission regulate these instruments so policy makers are aware if significant risk is being taken by investor and in advance of a crisis.

**Lack of Transparency of Hedge Fund Trades:** In part, the financial crisis was a result of the lack of regulation of hedge funds. No one knew where and how much hedge fund managers were investing in risky credit default swaps. This prevented analysts, regulators and policy makers from determining the risk and exposure that the market faced. The Act requires hedge funds to register with the Securities and Exchange Commission and to information on trades and portfolios. The goal, in this part too, is to help policy makers have a better idea of market risk and to have the ability to better assess which sectors of the economy might be affected.

**Lack of Oversight of Rating Agencies:** Ratings were called into question with the financial crisis. The reason was that risky derivative instruments and mortgage backed securities were given strong and positive ratings when, in fact, they were worthless because the underlying asset lost value. The Act created an Office of Credit Ratings at the Securities and Exchange Commission to help regulate ratings agencies. Such agencies are required to present their methodologies and the Office can actually deregister an agency if it provides faulty or wrong ratings.

**Lack of Effective Supervision of Insurance Companies:** The term, "too big to fail" was coined and used during the financial crisis. One company for which it was used was AIG (American International group). They had significant exposure to the risky derivative instruments which led to the U.S. Government stepping in and bailing them out through a takeover (Karnitschnig, et al., 2008). The Act created a new office, called the Federal Insurance Office as a part of the Treasury Department. Its goal is to help identify significant insurance companies that end up creating risk to the system, given their practices or exposure. Another goal of the office is to ensure that minorities and underserved communities have access to affordable insurance.

**Federal Reserve Transparency:** While the Government Accountability Office did audit Federal emergency loans during the financial crisis, it continues to have the power to audit the Federal Reserve's emergency loans in the future too, if necessary. In the future, the Treasury Department will need to get Federal Reserve approval before being able to make a loan to any one single significant organization. Additionally, loans made through the Troubled Asset Recovery Program will have to be transparent, in terms of which banks receive those funds.

#### **DODD-FRANK TITLES (Public Law 111-203)**

The Act has sixteen titles. The purpose of the Act is to help minimize the occurrence of another financial crisis. It aims to provide future financial stability to the markets and economy; to provide for orderly liquidation; to provide for orderly transfer of powers to various bodies, including currency comptroller, the corporation and the board of governors; to regulate hedge fund advisers; to reform insurance; to improve bank and savings organizations' regulations as well as transparency and accountability of Wall Street; to supervise payments, clearing and settlement; to better protect investors and security regulation; to create the Bureau of Consumer Financial Protection; to review the emergency lending process; to improve consumer access to mainstream financial institutions; and to reform the mortgage industry and to minimize predatory lending. Additional details, as they relate to the various titles, are discussed next.

**Title I** discusses financial stability. It discusses the creation of the Financial Stability Oversight Council with authority to supervise and regulate some nonbank financial companies and to have supervisory authority over disputes among member agencies. The title also created the Office of Financial Research which discusses the creation and operations of the Financial Stability Oversight Council, a body that is tasked with identifying risks that might impact the financial stability of the U.S. and to respond to those threats and to promote discipline in the financial markets. Finally, the title also provides increased authority to the Board of Governors as it relates to some nonbank financial companies and bank holding companies.

**Title II** discusses orderly liquidation of financial companies and brokers and dealers who are covered by the Act. It discusses the powers and duties of the Corporation as well as prevention of conflict of interest and bans on some senior executive and director activities. Finally, it commissions a number of studies on topics including nonbank financial and financial institution bankruptcy processes and international coordination of bankruptcy process for nonbank financial institutions.

**Title III** discusses the transfer of powers to the comptroller of the currency, the Federal Deposit Insurance Corporation and the Board of Governors of the Federal Reserve.

**Title IV** discusses the regulation of advisers to hedge funds and others. It creates the requirement to collect risk information, on a systematic basis. However, it exempts venture capital fund advisers and of private equity fund advisers.

**Title V** tackles insurance. It discusses the Federal Insurance Office and focuses on state based insurance reform as well as on the regulation of non-admitted insurance. Finally, it discusses the regulation of credit for reinsurance and reinsurance agents.

**Title VI** discusses improvements to regulation of banks, savings association holding companies and other depository institutions. This comprehensive title tackles a number of issues including requirements to ensure financial holding companies are well capitalized and managed; limiting the lending of insiders and purchasing of assets from insiders; regulating capital levels; among others.

**Title VII** tackles transparency and accountability of Wall Street. It discusses the limits on the Federal Government bailing out swap entities; the regulation of swap markets; and the regulation of security-based swap markets.

**Title VIII** discusses payment, clearing and settlement supervision including a detailed discussion of financial market utilities.

**Title IX** discusses investor protection and improvements to the regulation of securities. Its goals are to increase the protection of investors; to increase the enforcement and remedies as they relate to regulation; to improve asset-backed securitization process; to address executive compensation and accountability; to improve the management of the Securities and Management Commission; to strengthen corporate governance; and to regulate municipal securities.

**Title X** discusses the creation of the Bureau of Consumer Financial Protection, including the Consumer Advisory Board. It discusses the supervisory authority over non-depository covered persons and of very large banks, savings associations and credit unions along with overall regulatory improvements.

**Title XI** addresses Federal Reserve systems provisions. It discusses emergency lending authority amendments, public access to information, emergency financial stabilization and other Federal Reserve Act amendments.

**Title XII** discusses improving access to mainstream financial institutions by expanding access, providing low-cost alternatives to payday loans and grants to help establish loan-loss reserve funds.

**Title XIII** is the pay it back act which includes an amendment to reduce TARP authorization, and also amends the Housing and Economic Recovery Act of 2008.

**Title XIV** discusses the Mortgage Reform and Anti-Predatory Lending Act. This important title addresses standards as they relate to residential mortgage loan origination; high-cost mortgages; the office of Housing Counseling; mortgage servicing; appraisal activities; mortgage provisions, among others.

**Title XV** discusses miscellaneous provisions including the restrictions on using United States funds for foreign governments, protecting American taxpayers, and other sections that discuss minerals, coal and mine safety and the disclosure of payments by resource extraction issuers.

**Title XVI** is the last section and it discusses Section 1256 contracts.

As is clear from the discussion of the Dodd-Frank Act, the United States Congress is quite adept at reacting to major weaknesses that lead to significant crises. It remains to be seen what role the Dodd-Frank Act will play in detecting, deterring, or preventing future financial crises in the United States. The Dodd-Frank Act is relatively recent and it is expected that there will be some modifications in time, based on user challenges and the results of the numerous studies sanctioned by it.

**CONCLUSION**

This purpose of this article was to address the issue of continuing frauds despite the passage of the Sarbanes-Oxley Act in 2002. It discussed the issues that led to, and the titles within, SOX. Next it highlighted two significant frauds which contributed, in part, to the United States facing the most significant financial crisis since the Great Depression. The last part of the article discussed the issues that led to, and the titles within, the Dodd-Frank Act. In conclusion, the article points to the importance of having a broad and sweeping discussion of the dangers of greed and the dangers of inventing financial instruments which are poorly understood but heavily traded. The hope is that there will be a combination of a constructive dialogue, along with appropriate legislation and regulation, that will help the United States of America clean-up its financial house, before it is too late.

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**THE IMPACT OF EMOTIONALLY INTELLIGENT INDIVIDUALS, WORK TEAMS AND MANAGERS ON ORGANISATIONAL EFFECTIVENESS**

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**ABSTRACT**

*Today with change in business, organization as well as in personal life styles of individual and technological changes, the pace of competition all have lead to the view that emotional intelligence is one of the most indispensable elements not only in creating a profitable business but also in leading a successful life. Emotional intelligence within the workplace and will seek to find literature to support the notion that emotionally intelligent individuals, work teams, managers and leaders contribute to organisational effectiveness.*

**KEYWORDS**

Technological changes, competition, profitable business, work teams, organisational effectiveness.

**INTRODUCTION**

**R**apid technological change, an increasingly diverse workforce and global markets also contribute to a growing need for emotional intelligence. Change within business, organisations and within our personal lives has become an inevitable reality and a way of life in recent years. Advancement in technology, the pace of competition, globalisation, and the need to control cost and increase efficiency, coupled with increasing customer expectations, require an organisation to evolve and regenerate in order to survive.

Cooper and Sawaf (1997) are of the view that emotional intelligence is one of the most indispensable elements not only in creating a profitable business but also in leading a successful life. This will explore prior literature that relates to emotional intelligence within the workplace and will seek to find literature to support the notion that emotionally intelligent individuals, work teams, managers and leaders contribute to organisational effectiveness. Factors impacting on an organisation's ability to be effective and those that relate to emotions will be discussed.

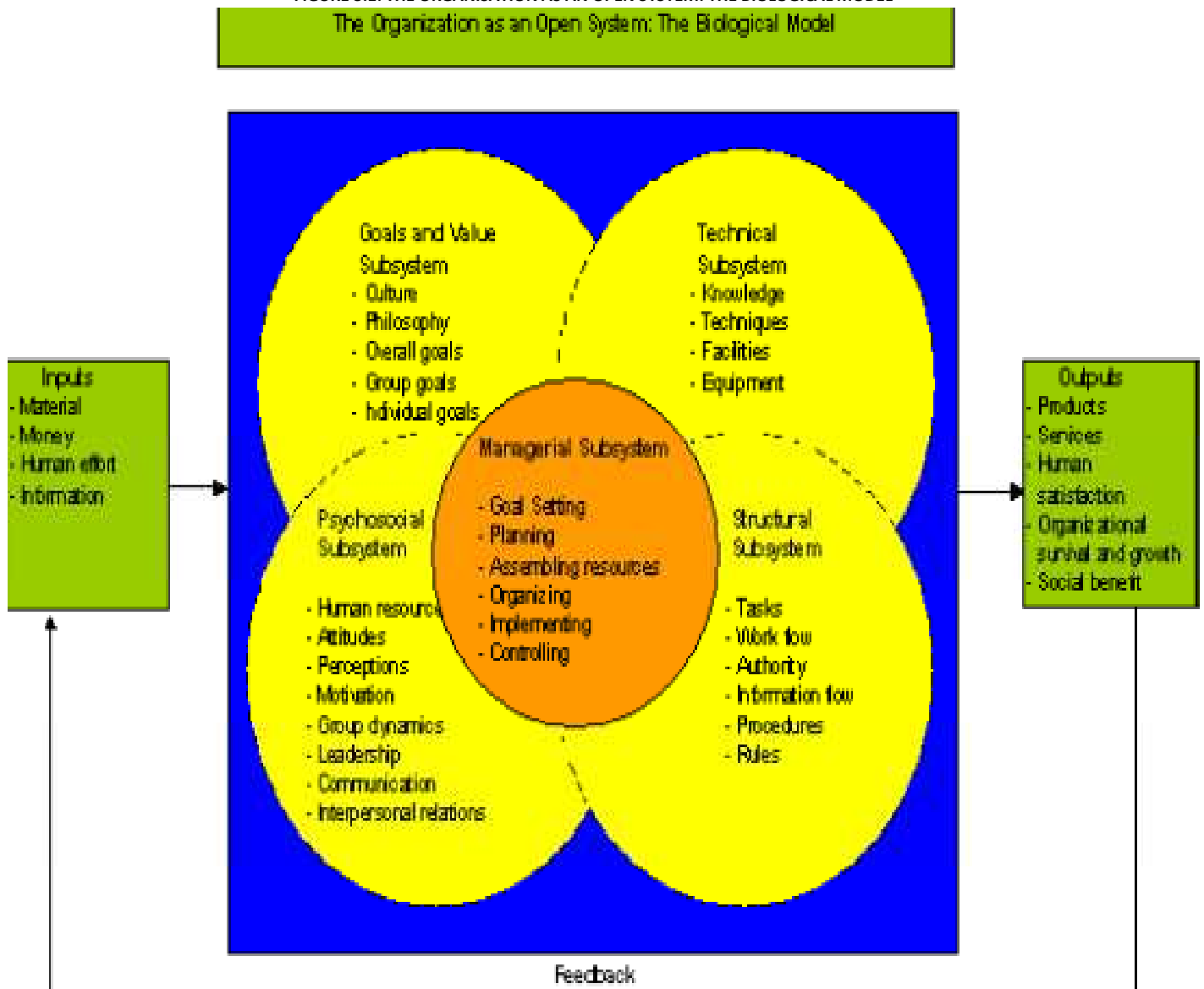
**ORGANISATIONAL EFFECTIVENESS**

Ivancevich and Matteson (2002:21) postulate that economists, philosophers, engineers, government and managers have for centuries tried to define, measure, analyse, and capture the essence of effectiveness. They further state that it is difficult to determine how and whether managers can influence effectiveness within organisations. Ivancevich and Matteson (2002:21) conclude there is still much confusion about how to manage within organisations so that organisational effectiveness is the final result.

Kreitner and Kinicki (1998: 565), in addressing the question of organizational effectiveness, state that organisational theorists not only drew upon the field of general systems theory that emerged in the 1950s, but suggested a more dynamic model for modern organisations. The proposed model likens organisations to the human body; hence it has been labeled the biological model. The biological model as illustrated in figure 3.1, characterises the organisation as an open system that transforms inputs into various outputs. The outer boundary of the organisation is permeable – people, information, capital, goods and services move back and forth across this boundary. Each of the five organisational subsystems – goals and values, technical, psychological, structural and managerial subsystems is dependent on the other. Feedback about aspects such as sales and customer satisfaction enables the organization to self-adjust and survive despite uncertainty and change. The organization according to Kreitner and Kinicki (1998: 565) in effect - is alive.



FIGURE 3.1: THE ORGANISATION AS AN OPEN SYSTEM: THE BIOLOGICAL MODEL



Source: adapted from Kreitner and Kinicki (1998: 567)

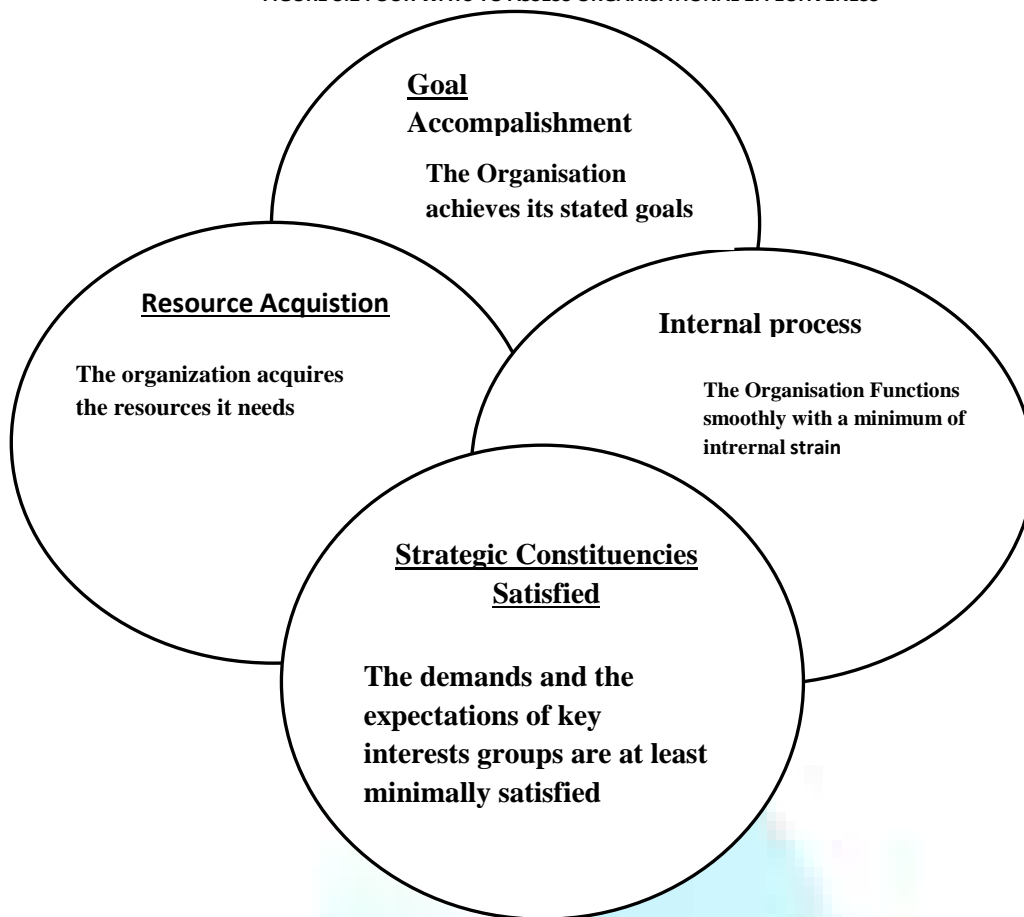
Kreitner and Kinicki (1998: 572) offer four ways to assess organizational effectiveness in order to better understand the complexities associated with this subject. Kreitner and Kinicki (1998: 565) state that these effective criteria, apply equally well to large or small and profit or not-for-profit organisations. A multidimensional approach is required when applying this approach; the following four criteria will be discussed briefly below.

**FOUR WAYS TO ASSESS ORGANISATIONAL EFFECTIVENESS**

- Goal Accomplishment – effectiveness is measured or gauged by how well the organisation meets or exceeds its goals. Goal accomplishment is the most widely used effectiveness criterion for organisations.
- Resource Acquisition – this second criterion relates to inputs rather than to outputs. An organisation is deemed effective in this regard if it acquires necessary factors of production such as raw material, labour, capital and managerial and technical expertise.
- Internal Processes – this third criterion is often referred to as the “healthy systems” approach. An organisation is said to be a healthy system if information flows smoothly and if employee loyalty, commitment, job satisfaction, and trust prevail.
- Strategic Constituencies Satisfaction – organisations both depend on people and affect the lives of people. Consequently, many consider the satisfaction of key interested parties to be an important criterion of organisational effectiveness. Figure 3.2 is a graphic explanation of the four ways in which organisations can reach or achieve organizational effectiveness. Kreitner and Kinicki (1998: 573).

It is important to note that in all four of the above-mentioned criteria used for assessing organisational effectiveness – the human factor remains a critical component of achieving success in each.

FIGURE 3.2 FOUR WAYS TO ASSESS ORGANISATIONAL EFFECTIVENESS



Source: adapted from Kreitner and Kinicki (1998: 573)

Apart from the above four elements that underpin the process of assessing organisational effectiveness, consideration needs to be given to the change management skills and capabilities that exist within an organisation. This aspect of organisational change will be discussed in greater detail later in this chapter. Carnall (1999:160) argues that a clear distinction needs to be made between the concepts of efficiency and effectiveness. According to Carnall (1999:160) efficiency comprises achieving existing objectives with acceptable use of resources. Effectiveness means efficiency plus adaptability; in essence, effective organisations are both efficient and able to modify their goals as circumstances change. Carnall (1999:160) further suggests that change should not only be introduced when things are going wrong. To the contrary, Carnall (1999:160) emphasises the importance of organisations' continually adapting to a changing world even when they are doing well. He further states that handling change effectively helps to sustain and create effectiveness in the future. Change management will be the next area of focus and will be discussed as part of a process towards achieving organisational effectiveness. The extent to which organisations are able to implement and manage change effectively, will determine to what extent such organisations will achieve organizational effectiveness. The following section will focus on change management and how it links to emotional intelligence.

**EMOTIONAL INTELLIGENCE AT WORK  
CHANGE MANAGEMENT**

Cook and Coldicott (2004: 6) assert that recent research has illustrated that the most important qualities of effective change leaders are not the disconnected set of skills or knowledge that they possess; instead these qualities relate to four intellects or types of intelligence. As will be illustrated in figure 3.3, the intellects depict the four points on a compass. These intellects help leaders to navigate the stormy waters of change Cook and Coldicott (2004: 4).

FIGURE 3.3 THE COMPASS OF THE INTELLECTS

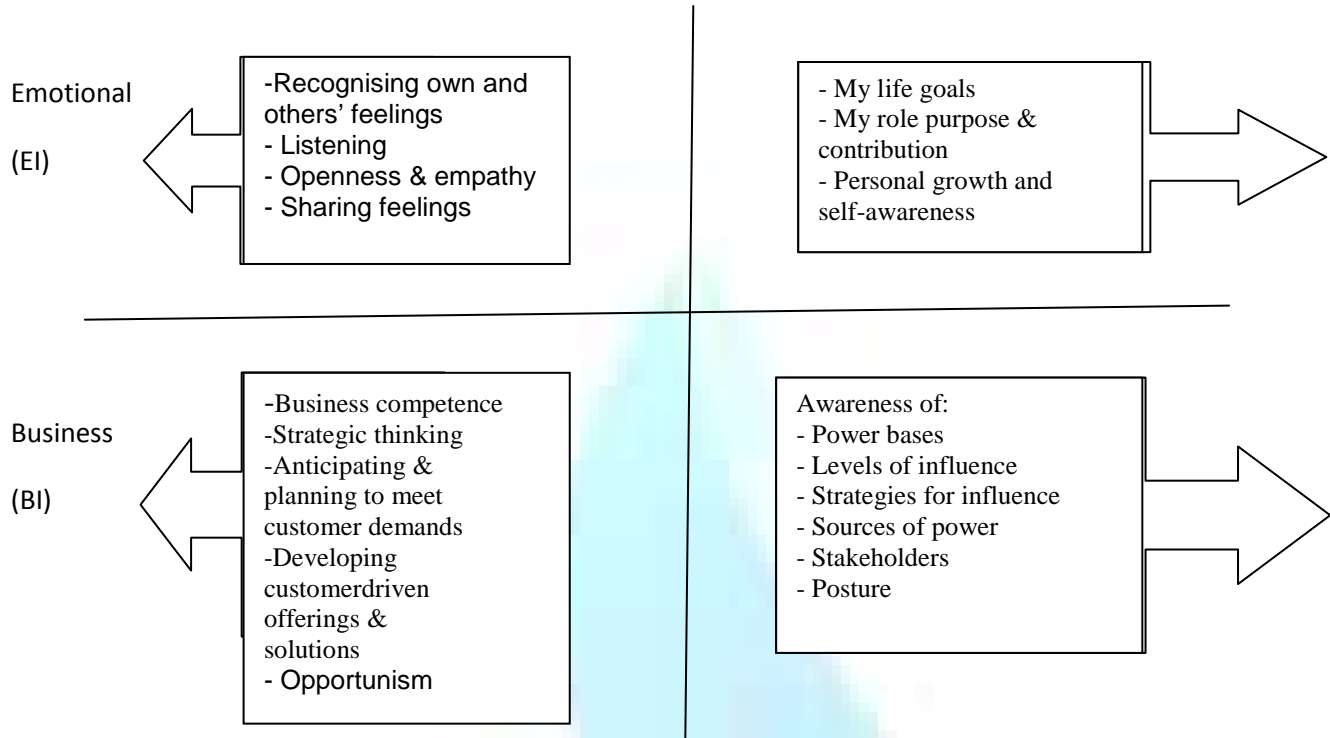


Source: adapted from Cook and Coldicott (2004: 5)

The compass of change illustrates the importance of balance in all four areas of the intellects. Like in the case of the four points on a compass, these four intellects are of equal weight, thus creating the required balance. If the leader misses one or more of them, according to Cook and Coldicott (2004: 5) the

compass becomes unbalanced and unreliable and will result in an unclear pathway. In obtaining a clearer understanding of what is required by leaders within these four areas of the compass, the various components of change leadership intellects will be discussed briefly.

FIGURE 3 .4 CHANGE LEADERSHIP INTELLECTS



Source: adapted from Cook and others (2001: 6).

A brief overview of the four intellects will follow to illustrate how, according to Cooper and others (2001:5), leaders can use these intellects to bring about successful change.

#### **BUSINESS INTELLECT (BI)**

Leaders with BI are able to anticipate customer demands and translate this knowledge into service offers and operational processes that deliver successfully to customers. BI leaders proactively manage customers' expectations by ensuring that their businesses are customer friendly. Cooper and Sawaf (2001:198) state that the new model of business intelligence uses a biological model that treats people, markets, ideas, and organisations as unique and alive, and is inherently capable of change, interaction, synergy and growth.

#### **EMOTIONAL INTELLECT (EI)**

Cook and others (2004: 6) suggest that emotions and feelings play a much bigger role in change than is sometimes recognised in a rationally oriented management world. Behaviours that demonstrate EI include:

- Understanding one's own and other's feelings;
- Listening;
- Being open and empathic;
- Sharing feelings;
- Appreciating others.

Cook and others (2004: 6) further comment that EI can have a direct financial impact – emotional intelligence research conducted in the US on General Medical Practitioners (GP's) revealed that GP's with the lowest levels of empathy were more likely to have been sued by their patients. Emotional intelligence relates to the quality of relationships between managers, their bosses, colleagues and direct reports. Further research conducted on leaders who took part in a round-the-world yacht race in 2001 showed that the more successful boats tended to have skippers and crew with higher levels of emotional intelligence than those who were unsuccessful in the race.

#### **SPIRITUAL INTELLECT (SI)**

Leaders with SI display a high degree of self-confidence and self-awareness, which enables them to set clear direction and stick firmly to the course of action. They do not shut out important new pieces of information. Examples of such leaders are Nelson Mandela and author Stephen Covey, who display SI through a clear set of personal values, beliefs and personal vision.

#### **POLITICAL INTELLECT (PI)**

PI requires leaders to be aware of how to influence others within the organisation. Politics often carries with it negative connotations, such as self seeking aims and manipulation which results in managers often shying away from its existence. A successful example of a leader reputed to have high Political Intellect is Jack Welch, former chairman of General Electric, known for leading his companies through constant change and renewal, skillfully recognising power bases and developing strategies for influence. Cooper and others (2001: 8) feel that the good news about this is that all four of these intellects can be developed at any age. Effective leaders waiting to navigate their organisation on an even keel through change will require high levels of intelligence in all four areas. ng other things, the ability to perceive and understand the emotional impact of change personally and on others. To be effective in helping the organisation manage change, leaders first need to be aware of and manage their own feelings of anxiety and uncertainty (Bunker, 1997). Then leaders need to be aware of the emotional reactions of other organisational members and to act to help people cope with those reactions. At the same time in this process of coping effectively with massive change, other members of the organisation need to be actively involved in monitoring and managing their emotional reactions and those of others.

The following section will cover specific critical areas that relate to emotions that have a direct impact on how organisations function. The first of these factors to be discussed is work stress, followed by conflict and self-discipline.

### **EMOTIONAL FACTORS IMPACTING ORGANISATIONAL EFFECTIVENESS**

#### **WORK STRESS**

Anderson and Kyprianou (1994: 81) view the impact of stress on individual effectiveness as a serious concern for organisational effectiveness. They point out that cost associated with stress is high and was estimated some years ago to amount to \_30 million for an organisation with over 2000 employees. Anderson and

Kyprianou (1994: 81) are of the view that the diagnosis and reduction of stress can therefore contribute significantly to increased individual and organisational effectiveness.

Factors associated with work stress that place individuals at high risk, listed by Anderson and Kyprianou (1994: 81), are heart disease (which includes cigarette smoking), high blood pressure, high cholesterol and blood sugar levels and excess body weight. Numerous studies, referred to by Anderson and Kyprianou (1994: 81) indicate that social and psychological factors may account for much of the risk and this has prompted research into factors in the work situation that may increase susceptibility to heart disease. Among the factors that have been identified to influence such susceptibility are dissatisfaction at work and occupational stress. Stress, as asserted by Anderson and Kyprianou (1994: 82), in itself is not abnormal – nobody is exempted from it; on the contrary stress may be a spur to doing something positive about a situation. Stress, however, that is irrational, unproductive and persistent may be a symptom of psychological and physiological illness. Anderson and Kyprianou (1994: 83) refer to research that has highlighted the following interactive and environmental sources of work stress:

**ENVIRONMENTAL SOURCES OF STRESS**

- Characteristics of the job itself;
- Role and responsibilities of the person in the organisation;
- Interpersonal relationships at work;
- Career development pressures;
- Climate and structure of the organisation;
- Problems associated with the interface between the organisation and the outside world.

Anderson and Kyprianou (1994: 83) feel that stress tends to be an individual thing, but it has been found to occur in various clusters as clarified in table 1. Other factors that the aforementioned authors indicate are caused by stress are time pressures and deadlines, too many decisions to take, fatigue and physical strains of the work environment and relating to the job, working conditions and work overload.

**TABLE 3.1: CLUSTER SOURCES OF STRESS**

Cluster	Example
Personal Relationship	Relationships with colleagues, impersonal treatment, constant client complaints and poor communication.
Contractual	Shifts, anti-social hours, job insecurity and unfair promotion procedures
Job	Conflicting roles, too much or too little work, lack of control, too much or too little supervision and machine paced work.
Environmental	From overcrowding to noisy conditions, from temperature to smoking

Source: adapted from Anderson and Kyprianou (1994: 84)

**RESPONSIBILITY AS A STRESSOR**

Evidence suggests that there is a need to distinguish between responsibility for people and responsibility for “things.” Anderson and Kyprianou (1994: 84) refer to research that indicated that heart disease was more likely to be associated with stress derived from responsibility for people than for things. This research further pointed out that these candidates tended to smoke heavily and had high blood pressure and high cholesterol levels. Research further indicated that good relationships are central to organisational health. These relationships include relationships with the boss, subordinates and colleagues (Anderson and Kyprianou, 1994:84).

**WHEN WORKPLACE STRESS STIFLES PRODUCTIVITY**

Santa-Barbara and Shain (Drake Business Review, Volume One: 29) suggest that home and family stress have a cumulative effect with work-produced stress, both feeding off and reinforcing each other. They further noted that the impact of workplace factors on employee health is independent of employee lifestyle factors and of home and family stress. These workplace-produced effects occur regardless of employees’ coping skills and lifestyles. Research indicates that early warning signs of stress from any source cause changes in brain chemistry that impair the immune system’s ability to defend against bacterial and viral attacks. Hence, the effect of excessive stress and strain on brain chemistry is experienced usually as depression, anxiety or anger. Santa-Barbara and others (Drake Business Review, Volume One: 29) point out that these are the early warning signs. The immediate impact on the organisation is manifested in poor morale, absenteeism and lower productivity. If these changes in brain chemistry persist, immune system deficiencies will worsen and more serious illnesses will occur.

**MANAGING STRESS**

To be effective, organisational members must recognise when to increase and decrease stress. Key to managing stress constructively, according to Anderson and Kyprianou (1994:85), is first to recognise its energizing or destructive effects. Productive stress can be managed by encouraging employees to build challenges into their work and to assume responsibility and autonomy. Dysfunctional stress can be managed by offering counselling or directing an employee to appropriate health or counselling services. A third way in managing stress is to reduce role overload, role ambiguity and even boredom.

**CONFLICT WITHIN THE WORKPLACE**

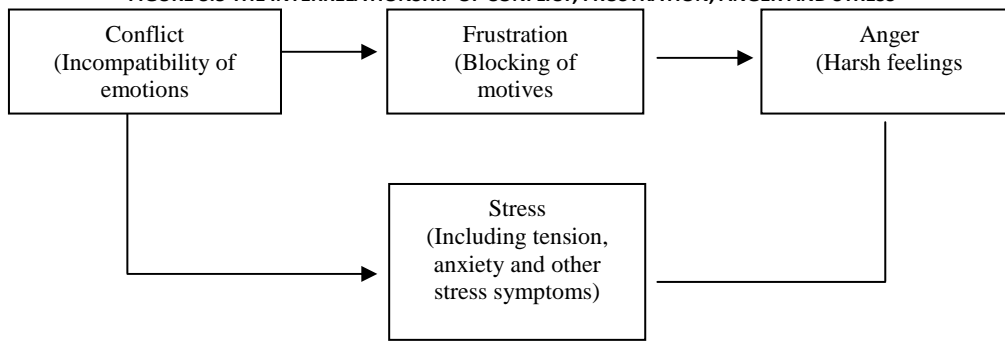
Anderson and Kyprianou (1994:122) describe conflict as the presence of incompatible goals, thoughts or emotions within or between individuals or groups that lead to confrontation. Conflict may therefore be the result of incongruent or incompatible relationships between people. The traditional perspective of conflict is negative – this implies that the presence of conflict is an indication that something is wrong and should therefore be eliminated. The contemporary perspective describes conflict as neither inherently good nor bad but as inevitable. Evidence suggests that conflict can improve the quality of decision making in organisations. Thus the crucial issue is not conflict itself but how it is managed.

Conflict can therefore be defined as functional or dysfunctional in terms of the effect that it has on the organisation. Anderson and Kyprianou (1994: 122) warn that dysfunctional conflict can have serious consequences for the organisation’s ability to achieve its goals; however functional conflict may enhance organisational innovation, creativity management and adaptation.

**CONFLICT MANAGEMENT**

According to Du Brin (2000: 210) almost any job that includes contact with people inevitably leads to conflict, such as dealing with an angry customer or coworker. Supervisors responsible for managing people would have greater need of such skills. Du Brin (2000:211) points out that conflict does not happen in isolation but that it is interrelated with three other emotions. Du Brin (2000:211) proposes that, in order to understand and better manage conflict, an individual would need to understand the relationship between conflict frustration, anger and stress. Figure 3.5 summarises these relationships and points out the flow from one emotion to the next.

FIGURE 3.5 THE INTERRELATIONSHIP OF CONFLICT, FRUSTRATION, ANGER AND STRESS



Source: adapted from Du Brin (2000:211)

### CONFLICT MANAGEMENT TECHNIQUES

Techniques that can be used to deal with conflict between two or more individuals range from the use of force by a manager or a trade union to a problem-solving approach. Anderson and Kyprianou (1994: 129) propose the following ways of handling conflict, namely:

- Force – demand acceptance of a certain situation; Conflict
- Withdrawal – withdraw or avoid the person with whom the conflict exists. The conflict may be reduced but the original cause remains;
- Smoothing – manager or subordinate attempts to provide an image of cooperation;
- Compromise – neither party gets all it wants, but an agreement is reached;
- Conciliation, mediation and arbitration – outside, neutral parties enter the situation to assist in resolving the conflict;
- Problem solving – characterised by an open and trusting exchange of views. By engaging in joint decision – making process, the sting may be taken out of the relationship conflicts.

Cook and others (2004:160) argue that everyone could benefit from a better understanding of conflict resolution techniques, particularly service employees, who work in environments where they need to manage angry or complaining customers, either inside or outside the organisation. They offer the following tips to manage conflict.

- Know yourself – understand how you typically respond to conflict. Practise being more flexible by putting yourself in the other person's shoes;
- Listen – listen carefully to words and feelings;
- Summarise – reflect on what someone said or felt will build greater respect and shared understanding;
- Avoid tunnel vision – be clear on your case but do not become too fixated on your point of view;
- Negotiate – be prepared to negotiate to reach an acceptable agreement;
- Consider the effects on people - review the implications on major decisions on other people: it is easy to lose other people's involvement and commitment as you drive ahead;
- Communicate - communicate regularly and build relationships, even (and especially) when damage has been caused.

Anger relates to conflict and stress in the workplace and requires to be dealt with proactively in order to reduce its impact on organisations.

#### MANAGING ANGER

Du Brin, A. J (2000; 230) states that the ability to manage your anger, and the anger of others is an important interpersonal skill now considered to be part of emotional intelligence. He further states that a person who cannot manage anger well cannot take good advantage of his or her intellectual intelligence. The focal point of managing anger effectively is developing the ability to manage personal anger and anger within others effectively. Du Brin offers some basic guidelines in managing your personal anger.

#### MANAGING YOUR OWN ANGER

Expressing your anger before it reaches a high intensity;

- Anger can be an energising force – instead of letting it be destructive, individuals need to channel their anger into exceptional performance;
- When an individual is about to express anger, he or she should slow down. (The old technique of counting to 10 is still effective). Slowing down, as suggested by Du Brin (2000;230), gives an individual the opportunity to express his/her anger in a way that does not damage relationships with others.

#### MANAGING ANGER IN OTHER PEOPLE

Dealing constructively with the anger of others can be as challenging as dealing with personal anger. A good starting point for dealing with another person's intense anger is to let the other person simmer down (Du Brin, 2000:231).

According to Carey Cherniss (April 15, 2000), emotional intelligence has as much to do with knowing when and how to express emotions as it has to do with controlling it. Hence, emotional intelligence requires that we learn to acknowledge and understand feelings in others and ourselves.

#### JOB CONFLICT

Job conflict is almost inevitable because so many different factors breed conflict. Du Brin (2000, 232) identifies eight major reasons for, or sources of, job conflict.

- Competition for limited resources;
- Building of stone walls;
- Differences in goals and objectives;
- The generation gap and personality clashes;
- Gender differences;
- Competing work and family demands;
- Employee abuse and sexual harassment.

Du Brin (2000,201) suggests that managers can play an active role in preventing and reducing stress and conflict by providing emotional support to employees and by empowering them. Several studies have found that social support may reduce both stress and strain (Du Brin, 2000, 201).

The above section focused on factors impacting on organisational effectiveness.

The next section will explore and examine techniques pertaining to emotional intelligence that could positively impact on organisations towards becoming effective. The first steps in this process will be to explore various components of emotional effectiveness.

### COMPONENTS OF EMOTIONAL INTELLIGENCE

Supportive behaviour that helps employees feel more effective includes the following (Du Brin, 2000, 201):

- Keep communication channels open. Managers can help ward off major stressors by encouraging group members to talk about real or imagined problems.
- Provide the right kind of backup. Different workers may require different kinds of help, such as a day off to recover from stress, or additional training.
- Act as a catalyst. Helping the employee solve the problem improves the employee's effectiveness more than solving the problem for the employee.
- Hold back on disseminating stressful information. Although being open with group members is usually beneficial, burdening the already stressed employee with additional stressful information may be overwhelming.

**SELF-DISCIPLINE**

Self-discipline is defined by Cook and others (2001: 192) as an ability to allow an individual to display emotions that are relevant and helpful at the time and also to deal appropriately and positively with those emotions that would not be helpful to share at a given point in time. Self-discipline means an individual can control anger as well as manage frustration and impulses effectively. Impulse control according to the afore-mentioned author is about looking before leaping, that is – “knowing what information inside to listen to and knowing to think first rather than responding automatically”. The inability to manage impulses often is linked with an inability to manage anger (Cook and others, 2001: 193). Anger, like other emotions is neither good nor bad – how an individual responds to it determines the effect. When anger is manifested in ranting and ravings, which create fear and paralysis, it is not helpful to any group of people who are trying to engineer change as they will be fearful of making decisions and will be prone to hiding things, which should not be hidden, for fear of further retribution Cherniss & Goleman (2001:6) further highlight the fact that emotional intelligence influences organisational effectiveness in a number of areas;

- Employee recruitment and retention,
- Development of talent;
- Teamwork;
- Employee commitment, morale and health;
- Innovation, productivity, efficiency;
- Sales, quality of service, customer loyalty and client outcomes.

Cooper & Sawaf (1997:XXI) propose a four-cornerstone model of EI that moves emotional intelligence out of the realm of psychological analysis and philosophical theories, and into the realm of direct knowing, exploration and application. The Four Cornerstone Model consists of:

- **Emotional Literacy** refers to being real and true to self by building personal power and includes aspects such as self-awareness, inner guidance, respect, responsibility and connection.
- **Emotional Fitness** refers to aspects that include strengthening authenticity, credibility, resilience, expanding the individual's circle of trust and capacity for listening, managing conflict and making the most of constructive discontent.
- **Emotional Depth** explores ways to align life and work with unique potential and purpose, and to back this with integrity, commitment, and accountability, which increases the individual's influence without authority.
- **Emotional Alchemy** seek to extend the individual's creative instincts and capacity to flow with problems and pressures and to compete for the future by building capacity to sense more readily – and access – the widest range of hidden solutions and untapped opportunities.

Goleman (200: 46) postulates that leaders cannot effectively manage emotions in anyone else without first handling their own. Not surprisingly, self-management is also important for competitive reasons. In the current ambiguous environment, where companies continually merge and break apart and technology transforms work at a dizzying pace, leaders who have mastered their emotions are better able to roll with the challenges and help the organisation to adjust. Self-management also enables transparency, which is not only a leadership virtue but also an organisational strength. Transparency is an authentic openness to others about one's feelings, beliefs and actions.

(Goleman, 2002: 46) Goleman (2002:46) asserts that ultimately, the most meaningful act of responsibility that leaders can do is to control their own state of mind.

The following section will examine teamwork and its relationship to emotional intelligence.

**TEAM WORK AND HOW IT RELATES TO EMOTIONAL INTELLIGENCE**

Orme, G (2001: 128) refers to research recently conducted by a doctoral student, Cheryl Rice, on relationships between individual team members' emotional intelligence and team performance. This research revealed that the role of emotional intelligence is a complex one. One of her key findings was that regulating emotions (managing emotions in oneself and in others) is of greater importance in team environments than is the ability to identify and understand emotions.

Studies on emotional intelligence in teams by Baron (1990) as quoted by Orme (2001:129) found that one of the keys to emotional intelligence for teams involves the ability to differentiate between validation and invalidation.

Validation refers to the ability to acknowledge, accept, understand and nurture people and their feelings and involves accepting someone's individuality. As Orme (2001:129) put it, “When the chips are down, very often all we need is to feel validated.” Invalidation refers to acting in a way that rejects, ignores, mocks, teases, judges or diminishes someone, or someone's feelings. Invalidation goes beyond mere rejection, by implying not only that our feelings are disapproved of, but also that we are fundamentally abnormal.

Invalidation is one of the most counterproductive ways to try to manage emotions. Orme, (2001: 129) suggests that it kills confidence, creativity and individuality. Each person's feelings are real. Whether or not we like or understand someone's feelings, it is rejecting reality, it is fighting nature and may be called “soul murder” according to Orme (2001: 130).

In teams, particular forms of invalidation take place and include the following:

- Keeping people in the dark about their performance;
- Personal attacks;
- Sarcasm;
- Angry tones.

Such behaviour, in the opinion of Orme (2001:130), usually elicits one or more of the following reactions:

- Defensiveness;
- Tension;
- Antagonism;
- People making excuses or avoiding responsibility;
- People ignoring the leader; and
- People leaving the organisation.

Covey (1989:48), in the context of teams, postulates that dependent people need others to get what they want. However, independent people can get what they want through their own efforts. Covey (1989:49) elaborates that independent people are able to combine their own efforts and those of others to achieve their greatest success. Independent people therefore, who do not have the maturity to think and act interdependently, may be good individual producers, but they will not be good leaders or team players.

Covey (1989:49) maintains that interdependence is necessary to succeed in marriage, family and organisations. Life by nature is highly interdependent – to achieve maximum effectiveness through independence is like trying to play tennis with golf clubs – the tool is not suitable for the reality. Individuals who realise their interdependence, are enabled to share themselves deeply and meaningfully with others, and expose themselves to the vast resources and potential of other human beings. Hence, interdependence is a choice that only independent individuals can make. Dependent people cannot choose to become interdependent as they do not have the characters firstly to do it, and secondly do not own enough of themselves (Covey, 1989: 49)

Druskat and Wolff (2001) in the March issue of the Harvard Business Review reinforced the basic message of effectiveness in organisations in the following quote. “In an era of teamwork, it's essential to figure out what makes teams work. Our research shows that, just like individuals, the most effective teams are emotionally intelligent ones - and that any team can attain emotional intelligence.”

They further state that experts suggest that most decisions are made emotionally and later rationalised as the correct choice. Leveraging the power of emotional intelligence creates a smart competitive advantage toward effective teamwork and achieving business results.

Goleman (1995) suggests a need to “redefine what it means to be smart”, He further emphasizes that “The rules for work are changing. We are being judged by a new yardstick; not just by how smart we are, or by our training and expertise, but also how well we handle ourselves and each other.”

It is important to note that most businesses, at least to some extent, are limited in terms of people and resources. It is essential to leverage people and resources using the best methods available. Emotional Intelligence is a powerful catalyst for employee innovation, creativity and productivity, which contributes to and enhances competitive advantage. Leveraging emotional intelligence at all levels of the organisation is a smart business investment (Goleman, 1995). Human Performance Strategies combine traditional cognitive intelligence (IQ) with emotional (non-cognitive), Intelligence (EI) to help leaders perform at their best and inspire the best from their people. Combining and leveraging these distinct competencies forms the foundation to leadership effectiveness and achieving fullest potential.

### SUMMARY

This was introduced with an explanation of what is implied by the term organisational effectiveness. The organisation was described as an open system, likened to a living organism as described in the biological model. A discussion on change management which focused on four leadership intellects, namely emotional intelligence, spiritual intelligence, business intelligence and political Intelligence was introduced. This chapter was concluded with a discussion on the impact that emotionally intelligent individuals, work teams and leaders have on organisational effectiveness.

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**STUDY OF CHALLENGES INVOLVED IN CLOUD COMPUTING FOR LIBRARIES**

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**ABSTRACT**

With the latest development of technology, today Library Science has got its impact on information system and services they provide for users. Yet there is confusion about exactly what cloud computing offers to digital libraries. This paper overviews the basic concept of cloud computing and how it is different from other types of computing. It also discusses cloud computing solutions could be beneficial to libraries in three basic areas: Technology, Data and Community Power. The paper also focuses on at how a cloud implementation of CiteSeer is feasible solution for library operation and growth.

**KEYWORDS**

Cloud computing, CiteSeer.

**I INTRODUCTION**

Libraries have been using cloud computing services for over a decade. Online data bases are accessed as cloud applications. Cloud computing [2] has several features like information retrieval systems, particularly digital libraries and search engines, efficient resources use etc. These features are useful for digital libraries, repositories and search engines.

The paper discusses how the cloud computing can be employed by libraries and challenges involved in the solution of cloud computing.

**1.1 WHAT IS CLOUD COMPUTING?**

Cloud computing is a type of computing that depends on sharing computing resources rather than having local servers devices to handle the applications. The main goal of cloud computing is to apply the high performance computing power to perform normal computing operations with tremendous speed. Cloud computing is different from other methodology which acts on demand service where the user can get continuously updated services with other web applications.

**1.2 CHARACTERISTICS OF CLOUD COMPUTING**

The main characteristics of cloud computing are shared infrastructure which allows user to use the cloud services, storage, applications and networking technologies regardless of local availability. It allows to use of metering for billing the information they have actually used.[4]

Following are the characteristics of cloud computing:

- OPENNESS** : Services and data are made available to support greater Interoperability.
- Extensibility** : Platform can easily accommodate the addition of new services and applications.
- Data richness** : Library can interact with and expose a wide variety of information about purchased, licensed, and digital content through this platform.
- Collaboration** : Libraries can connect the collective power of the community of libraries to innovate and share solutions.

Basically, cloud computing is categorized into two parts. One is client side, which demand for the various services, storage, and applications. And other part is the back end of the system; i.e. a cloud server, networks, storage systems.

All of them are bound to follow set of rules called protocols to ensure the proper services demanded by the use of client.

**1.3 DEPLOYMENT OF CLOUD COMPUTING**

The deployment of cloud computing can be done in various models. The models are as follows:[1]

- 1.3.1 SaaS: Software as a Service: User or customer is allowed to use the application hosted in the cloud.**
- 1.3.2 PaaS: Platform as a Service: Customers purchase the platform in cloud wherein they can deploy their own software and applications.**
- 1.3.3 IaaS: Infrastructure as a Service: Customer purchases the rights to control and manage the system in terms of operating system, applications, storage and network access.**

The above models can be explained in terms of following table:

**TABLE 1.3.1**

Type	What it is	Examples
Infrastructure	Buying space/ time on external servers	Amazon A3 Bungee
Platform	An existing software platform to build your own applications on	Facebook
Applications	Software applications accessed with a Web browser	GoogleDocs Salesforce.com
Services	Ready to use services accessed with a Web browser	ADP

The Table illustrates that there are varying definition of cloud computing.

Many cloud services actually incorporate two or more of these types. For example Google Docs provides infrastructure as well as applications.

**II CLOUD COMPUTING SOLUTIONS FOR LIBRARIES**

Real problems of libraries can be solved by cloud computing solutions.

It amplifies the power of cooperation and to build a significant, unified presence of the web. Such improvement can be grouped into three basic areas: Technology, Data and Community Power.[3]

**2.1 TECHNOLOGY:** Most library computer systems are built on pre-web technology which is harder and more costly to integrate. Information seekers work in common web environments and distributed systems make it difficult to get the library into their workflow. How cloud computing is advantageous for library? Answer is, with cloud based computing work done in one place echoes through the rest of the system and is available to all. The benefit of shared data and a cooperative platform encourages innovation and pools the creativity of many participants or users.[2]



Amazon in 2002 was one of the first companies to open up its technology for other organizations to use and build services on. Today, through its cloud services, 1 million businesses with more than 150000 developers are building innovative applications by adding their software applications with Amazons[3].

**2.2 DATA:** When data is stored on cloud can be easily shared among services and users. No need for local storage, maintenance and backup. Libraries can share pool of data for cooperative collection building, cooperative preservation or digitization. With massively aggregated data new services can be created such as recommender services based on a broad base of usage of data.

**2.3 COMMUNITY POWER:** Libraries have a somewhat unique opportunity with cloud computing to create an on line information community network.

When Google approached large research libraries to digitize their collections, the agreements allowed the libraries to have a digital copy of each book or journal storing all on common Hathi Trust and single point access to all.

This is real world example of using cloud-based services to enable the technology, data aggregation and community of shared needs and values to create an incredibly useful service for library users.

### III ADVANTAGES OF CLOUD COMPUTING FOR LIBRARIES

Cloud computing offers many interesting possibilities for libraries that may help to reduce technology cost and increase capacity, reliability and performance.

#### 3.1 Advantages [4]

- Cost saving
- Flexibility & Innovation
- User centric
- Openness
- Transparency
- Interoperability
- Representation
- Availability any time
- Connect and converse
- Create and collaborate

#### 3.2 Examples

- OCLC
- Polaris
- Discovery services
- Google Docs/ Google Scholar
- World cat
- Encore

### IV CHALLENGES AND CONCLUSION

Cloud based services are more useful for libraries still there are certain questions/ challenges to be addressed or look after.

- Does this service have built in scalability, reliability and security in terms of technical and legal?
- Is it multi-tenancy?
- Owner of data store and rights to library to leave the service
- Can it be open service and integrated to external services?

With the current challenges of cloud infrastructure, CiteSeer Library search engine provides autonomous citation , indexing, full text indexing and extensive document metadata from documents crawled from the web across computer and information sciences and related fields.

Infrastructure virtualization and cloud computing are particularly attractive choices for CiteSeer[2]. CiteSeer is an application instance of SeerSuite, a framework for building digital libraries , repositories and search engines. SeerSuite uses state of art , machine learning methods for automated metadata extraction, autonomous , citation, indexing, author disambiguation and other features.

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**IMPACT OF INSTITUTIONAL FINANCE ON MSME****DR. J. MARY SUGANTHI BAI****ASSOCIATE PROFESSOR****JAYARAJ ANNAPACKIAM COLLEGE FOR WOMEN (AUTONOMOUS)****THAMARAikulam****ABSTRACT**

*The entrepreneurship is used in each and every dimension of life whether it is family, business, government, social group or enterprise. It plays a significant role in multi dimensions and multifacets development of the state and nation. It helps the state and country to face the problem of unemployment. It reduces the dependence of the people from the government. The central and state governments have introduced number of schemes and projects to promote entrepreneurship in various sectors of development. It is said that development of an individual, family organization, community, village, district, state and nation cannot be thought without entrepreneurship. Therefore, the entrepreneurship is considered to be one of the significant dimensions of development. The government is putting lot of efforts and money to develop entrepreneurs who can contribute for social, economic, psychological, political and environmental development. The present study reveals the impact of institutional finance on entrepreneurial activity in the study area.*

**KEYWORDS**

Institutional finance, assets, production, sales, profit.

**INTRODUCTION**

The entrepreneurship activity owes a great deal to the promotional activities of the government and financial institutions. Indirectly some of the broad policies of the government and financial institutions, like the tariff or the import substitution policies, the thrusts in the corporate taxation system or the changes in the bank rate can have enormous effect on the pattern of entrepreneurship development. But equally important is the direct role of the government and financial institutions in promoting industries and business. The direction and character of government subsidies, the facilities for term loans offered by government sponsored institutions, the infrastructure facilities and the general investment opportunities afforded by the government have a great bearing on entrepreneurship development. After independence, our government felt that the absence of institutional frame for providing long term and medium term credit to industry was a major obstacle in the way of India's rapid industrial development. Starting with the Industrial Finance Corporation in 1968, the government had created a number of development banking institutions at all India and state levels for supplying long term and medium term credit depending on the needs of the industry. These along with the two other institutions LIC and UTI and also with the nationalised commercial banks can be said to confer a near monopoly of term finance on the Government of India. Some of the financial incentives offered by the State Industrial Development Corporation are refund of sales tax paid for the first three years and subsidy of power tariff up to 30 per cent for five years.

Commercial banks played a significant role in supporting the SSI movement in India. After the nationalisation of banks, the lending to priority sector was seen as an essential component of national agenda. Banks have continuously been evolving special schemes and approaches to suit the rapidly growing and changing needs of the sector. A notable feature in the financing of small scale industries has been the introduction of the Lead Bank Scheme by the RBI. Under this scheme each district has been allotted to one scheduled commercial bank for intensive development of banking facilities. The introduction of Credit Guarantee Scheme in 1960 was a big fillip in the field of commercial banks financing the small scale industries. Initially this scheme was introduced in 22 districts on experimental basis. Later it was extended to all over the country. Further the RBI set up a committee under the Chairmanship of Shri P.R. Nayak to look into the adequacy of institutional credit to small scale industries based on the recommendations of the committee. The RBI introduced a special package of measures aimed at increasing the credit flow to the small scale industries and arresting the problem of sickness in small sector. Availability of credit to the small sector improved further with the stipulation on foreign banks to extend at least 10 per cent of their net bank credit to the SSI sector and deposit the shortfall, if any, with the Small Industries Development Bank of India.

**REVIEW OF LITERATURE**

Indejit Singh and Gupta, N.S.,(1971) in their study titled "Financing of Small-Scale Industry" also pointed out the inadequacy of industrial credit. They concluded that only 5.1 per cent of the borrowers were financed by institutional finance.

Neelamegam, R. and Maria Inigo, R.,(1983) in their study entitled "Managing Small Industry with Strong Equity" reported that out of 150 units, nearly half of the sample units (constituting 49.3 per cent) had procured loans exclusively from banks and financial Institutions. A distinct feature of the study was that 24 units did not avail finance from any source but used their own funds.

Ram Dawar,(1986) in his study entitled "Institutional Finance to Small-Scale Industry, Hire Purchase Finance for Plant and Machinery" attempted to examine the hire purchase scheme of the National Small-Scale Industries Corporation and Small-Scale Industrial Development Corporation. An appraisal of the operation of hire purchase schemes of these institutions was also undertaken. The evaluation of the performance of the units assisted by the Corporations, with the help of different accounting ratios, was one of the distinctive features of the study.

Subbiah, A., (1990) in his study entitled "Financing of Small-Scale Industries by SBI: A Study with Special Reference to Sattur Branch" stated that there was delay in granting loan and subsidy to small-scale units. The SBI could not achieve its target of disbursement of loans to small-scale units due to non materialisation of some new proposals. Match factories did not fully utilise the cash credit limit sanctioned by them.

Sitharamayya, C., (1993) C. in his study titled "Financial Management Practices in Small Enterprises" highlighted some of the inadequacies in the financial management function in small industries. He also observed that besides the entrepreneurs themselves, the supporting agencies, institutions and banks should make effort to convince the entrepreneurs' need for a sound financial management system in their enterprises.

On the basis of survey conducted by the Central Small Industries Organization, the Administrative Reforms Commission stated that 20 per cent of the financial requirements of small units were met by institutional sources.

Kasturi Nageswara Rao, (2006) in his study entitled "Bank credit, Redefining Priorities" has showed that the priority sector credit is not common among developing economies. An internal group of the RBI studied the question of priority sector credit and recommended that direct lending has to be continued with respect to small borrowers and that direct lending, if continued, has the potential to generate huge employment.

Ganesan, S.,(2007) in his study titled "Effectiveness of Bank Finance to Small-Scale Industries in Madurai District" pointed out that the bank should inspect documents without delay, simplify the procedures for getting loans and fix the time limit for the sanction and disbursement, so that small-scale industrial units can get timely credit at lower interest. To reduce the time involved in credit sanction, it is essential that the small-scale industries should submit all the required information at a time.

**STATEMENT OF THE PROBLEM**

The central and state governments are taking more interest in promoting the growth of entrepreneurship. Individuals are encouraged to form new business and are provided with such government support as tax incentives, buildings, road and a communication system to facilitate this creation process. Generally the biggest problem faced by the MSME sector is the non - availability of adequate financing facilities. It is not a very easy task for the micro small and medium

entrepreneurs to raise or get their needed capital at the time of their need. In spite of these various financial support extended by the Government to the entrepreneurs at various stages, they are put to many hardships which stand like a stumbling block in their overall development. Hence the present study has been undertaken to evaluate the impact of institutional support on entrepreneurs.

## OBJECTIVE

The objective of the present study is to examine the impact of institutional finance on the entrepreneurial activity.

## HYPOTHESIS

Variables like value of the building, value of machinery, value of vehicle, value of the raw materials kept in the business, value of the finished goods stored in the business, production by the respondents, the sales effected, the capacity utilisation of the respondents, the total amount of working capital of the business and the profit in the business of the respondents have not significantly increased after getting support from the institutions.

## RESEARCH METHODOLOGY

The present study is an empirical research based on survey method. The primary data were collected from the entrepreneurs by the researcher, with the help of a well structured interview schedule. A comprehensive interview schedule was used to collect the required data from the 300 respondents of Theni District in Tamil Nadu. After completing the data collection the financial support by the financial institution to the development of entrepreneurship was analysed with the help of the variables like 'Building', 'Machinery', 'Raw materials', 'Vehicle', 'Finished goods', 'Production', 'Sales', 'Capacity utilization', 'Working capital' and 'Profit'. The secondary data was collected from Public sector commercial banks, Private sector commercial banks, Co-operative sector banks, Small Industries Development Corporation, District Industries Centre and the Tamil Nadu Industries and Investment Corporation.

## CHANGE IN AVERAGE VALUE OF THE BUILDING

Building includes factory premises and sheds, office block, storage space for raw materials, work-in-progress and finished goods required for an industrial enterprise. They are built according to the plans approved by the local bodies and such other agencies which regulate the setting up of particular type of industries. Data were collected in respect of value of building of the industry before and after getting support from the institutions. The change in average value of building before and after getting support from the institutions and the results of test of significance are presented in Table 1.

TABLE 1: CHANGE IN AVERAGE VALUE OF THE BUILDING AND TEST OF SIGNIFICANCE

Period	Average Value of the Buildin ( Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	3084765.60	-	5.861**
After getting support from the institutions	6205742.20	+101.17	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

Table .1 shows that the average value of building of the industry was Rs. 3084765.60 before getting support and was Rs. 6205742.20 after getting support. This shows an increase of 101.17 per cent. The resultant increase of value of building of the industry may be due to construction of additional building, extension of existing building, renovation and remodeling of existing building according to the business requirements and purchase of additional land for the business. In order to find out whether such increase in the value of building of the industry is statistically significant or not, the following null hypothesis was framed. 'The value of building of the industry has not significantly increased after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the value of the building of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (5.861) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that institutions helped the industries to purchase and remodel the building.

## CHANGE IN AVERAGE VALUE OF MACHINERY

Machinery is one of the important fixed assets in industries. Large portion of the fixed capital is used to purchase the machinery. Machinery is installed to convert the raw material into finished goods. Machinery which is required for the manufacture of a product is obtainable from various sources in the country and abroad. In some cases machinery is got fabricated, while in others, second hand machinery is considered suitable. The change in average value of machinery before and after getting support from the institutions and the results of test of significance are presented in Table 2.

TABLE 2: CHANGE IN AVERAGE VALUE OF MACHINERY AND TEST OF SIGNIFICANCE

Period	Average Value of Machinery ( Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	1466128.20	-	2.906**
After getting support from the institutions	2775192.30	+89.28	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

Table 2 reveals that before getting support the average value of machinery of the industry had been Rs.1466128.20 and after getting support it was Rs. 2775192.30. This shows an increase of 89.28 per cent. It may be due to the fact that most of the entrepreneurs purchased machinery only after getting financial support from the institutions. To find out whether such increase in the value of machinery of the industry is statistically significant or not, the following null hypothesis was framed. 'There is no significant difference in the value of machinery of the industry before and after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the value of machinery of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (2.906) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that due to the institutional support the value of the machinery of the industry has substantially increased.

## CHANGE IN AVERAGE VALUE OF VEHICLES

Vehicles are used for conveyance or transportation. These are bought and used for the employers, workers and for transporting raw materials, finished goods, spares and the like. Mostly the vehicles are purchased by the industry to transport the raw material from the place of availability to the place of production and finished goods from the place of production to the place of marketing at a minimum transport cost. The aggregate value of vehicles of the industry was collected for both before and after getting support from the institutions and the results of test of significance is presented in Table 3

TABLE 3: CHANGE IN AVERAGE VALUE OF VEHICLES AND TEST OF SIGNIFICANCE

Period	Average Value of Vehicles (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	1123557.70	-	4.032**
After getting support from the institutions	2288701.90	+103.70	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

Table 3 reveals that before getting support, the average aggregate value of vehicles of the industry was Rs.1123557.70 and after getting support it was Rs.2288701.90. This shows an increase of 103.70 per cent. This increase may be due to purchase of new vehicles. In order to find out whether such increase in the value of the vehicles of the industry is statistically significant or not, the following null hypothesis was framed. 'There is no significant difference in the value of vehicles of the industry before and after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the value of vehicles of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (4.032) is greater than its corresponding table value (2.58) at one per cent level. Therefore, the null hypothesis is rejected. Hence it may be concluded that due to the institutional support, the aggregate value of the vehicles of the industry has substantially increased.

### CHANGE IN AVERAGE VALUE OF THE STOCK OF RAW MATERIALS

Raw material is inevitable for production. The availability of raw material has been a great problem in small-scale units. Some of them are chronically in short supply; some are very scarce at times and abundant at others; and there are great price variations. In view of the serious shortage of raw materials, the industry keeps sufficient stock of raw materials for their continuous flow of production. The average value of the stock of raw materials before and after getting support from the institutions and the results of test of significance are presented in Table 4.

TABLE 4: CHANGE IN AVERAGE VALUE OF THE STOCK OF RAW MATERIAL AND TEST OF SIGNIFICANCE

Period	Average Value of Stock of Raw Materials (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	1038000.00	-	5.025**
After getting support from the institutions	1286210.00	+23.91	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

It is seen from Table 4 that before getting support, the average value of the stock of raw material was Rs.1038000 and after getting support it was Rs.1286210. This shows an increase of 23.91 per cent. It may be due to the fact that industry keeps adequate stock of raw materials only after getting financial support from the institutions. The following null hypothesis was framed in order to find out whether such apparent increase in the value of the stock of raw materials of the industry is statistically significant or not. 'The value of the stock of raw materials kept in the business does not show a significant difference before and after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the value of the stock of raw materials of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (5.025) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that due to the institutional support, the value of the stock of raw materials of the industry has substantially increased.

### CHANGE IN AVERAGE VALUE OF THE STOCK OF FINISHED GOODS

There is a time gap between production and sales, as long as the production continues. For a regular supply of goods in the local and international market and to attain goodwill from the consumers, the entrepreneur keeps adequate stock of finished goods. The average value of the stock of finished goods before and after getting support from the institutions and the results of test of significance are presented in Table 5.

TABLE 5: CHANGES IN AVERAGE VALUE OF THE STOCK OF FINISHED GOODS AND TEST OF SIGNIFICANCE

Period	Average Value of Stock of Finished Goods (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	1685960.00	-	6.079**
After getting support from the institutions	2393295.00	+41.95	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

Table 5 reveals that before getting support the average value of the stock of finished goods had been Rs. 1685960.00 and after getting support it was Rs. 2393295.00. This shows an increase of 41.95 per cent. It may be due to the fact that entrepreneurs keep adequate stock of finished goods only after getting financial support from the institutions. The following null hypothesis was framed in order to find out whether such apparent increase in the value of the stock of finished goods of the industry is statistically significant or not. 'The value of the stock of finished goods kept in the business does not show a significant difference before and after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the value of the stock of finished goods of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (6.079) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that due to the institutional support, the value of the stock of finished goods of the industry has substantially increased.

### CHANGE IN AVERAGE AMOUNT OF WORKING CAPITAL

Working capital is the amount of funds which a small-scale enterprise must have to finance for its day to day operations. It is short term finance. Working capital is required to purchase raw materials, inventories, spare parts and payment of wages. It is required for running the business. It is raised out of one's own funds and short term loans in the form of cash credit and overdraft from the financial institutions. Table 6 reveals the average amount of working capital of the industry and the percentage change during, before and after getting support from the institutions and the results of test of significance.

TABLE 6: CHANGES IN AVERAGE AMOUNT OF WORKING CAPITAL AND TEST OF SIGNIFICANCE

Period	Average Amount of Working Capital (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	1556830.00	-	6.989**
After getting support from the institutions	2303783.30	+47.97	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

It is clear from Table 6 that before getting support, the average amount of working capital of the industry had been Rs. 1556830.00 and after getting support it was Rs. 2303783.30. This shows an increase of 47.97 per cent. It helps the entrepreneurs keep adequate amount of working capital in order to meet day to day expenses. The following null hypothesis was framed in order to find out whether such apparent increase in the amount of working capital of the industry is

statistically significant or not. 'The total amount of working capital of the business has not significantly increased after getting support from the institution'. The results of the test of significance revealed that the apparent increase in the value of the working capital of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (6.989) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that due to the institutional support, the amount of working capital of the industry has substantially increased.

### CHANGE IN PERCENTAGE OF CAPACITY UTILISATION

Capacity utilisation refers to the extent to which an enterprise actually used its installed productive capacity. Thus it refers to the relationship between the actual output that is produced with the installed equipment and the potential output which could be produced with it, if the capacity is fully used. The capacity utilisation is estimated on present-enterprise performance, prevailing market conditions, competitive atmosphere and the technical snags. Profit of an industry mainly depends on the utilisation capacity of the industry. All the factors of production must be utilised to the maximum extent without being kept idle. The change in percentage of capacity utilisation before and after getting support from the institutions and the results of test of significance are presented in Table 7.

**TABLE 7: CHANGE IN PERCENTAGE OF CAPACITY UTILISATION AND TEST OF SIGNIFICANCE**

Period	Percentage of Capacity Utilisation (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	73.64	-	88.220**
After getting support from the institutions	94.06	+27.71	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

Table 7 reveals that before getting support, the percentage of capacity utilisation of the industry was 73.64 per cent and after getting support it was Rs. 94.06 per cent, showing an increase of Rs. 27.71 per cent. Such increase in the percentage of capacity utilisation may be due to increase in fixed assets and working capital. To find out whether such increase in the percentage of capacity utilisation of the industry is statistically significant or not, the following null hypothesis was framed. 'There is no significant difference in the capacity utilisation of the respondents before and after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the percentage of capacity utilisation of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (88.220) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that the percentage of capacity utilisation has increased due to the support of the institutions.

### CHANGE IN AVERAGE PRODUCTION

The performance of the industry is measured in terms of production. Conversion of raw material into finished products is known as production. The four factors of production, raw material, labour, capital and organisation are directed towards the achievement of production. In order to ensure continuous flow of production, the industry maintains sufficient amount of stock of raw materials. In addition, industry keeps the required amount of cash to pay wages, overheads and meet its other obligation during the process of production. The change in average production before and after getting support from the institutions and the results of test of significance are presented in Table 8.

**TABLE 8: CHANGE IN AVERAGE PRODUCTION AND TEST OF SIGNIFICANCE**

Period	Average Production (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	7415837.60	-	7.533**
After getting support from the institutions	10607360.00	+43.03	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

Table 8 shows that before getting support, the average production of the industry had been 7415837.60 and after getting support it was Rs. 10607360. This shows an increase of 43.03 per cent. Such increase in the production may be due to the sufficient amount of financial support provided by the financial institutions. In order to find out whether such increase in the production of the industry is statistically significant or not, the following null hypothesis was framed. 'The production of the respondents has not significantly increased after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the production of the industry after getting support when compared to that one before getting support is statistically significant as the calculated 't' value (7.533) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that institutions helped the industry to increase the production of the industry.

### CHANGE IN AVERAGE SALES

Sale is an important factor in business. The profit of the industry mainly depends on the sales. Production will be increased, if sales are performed simultaneously. The main object of sale is to dispose of goods at a satisfactory price. In order to increase the sales volume, the industry maintains sufficient volume of stock of finished goods. To increase the sales volume demand must be created. The entrepreneurs spend large amount of money for advertisement and sales promotional activities as they increase the sales volume of the products. Besides an industry may extend credit facilities to all of its customers. Hence mass production is possible. This leads to reduction in the cost of production. The change in average sales before and after getting support from the institutions and the results of test of significance are presented in Table 9.

**TABLE 9: CHANGE IN AVERAGE SALES AND TEST OF SIGNIFICANCE**

Period	Average Sales (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	4666306.70	-	8.878**
After getting support from the institutions	6558416.70	+40.54	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

Table 9 shows that before getting support, average sales of the industry had been Rs. 4666306.70 and after getting support it was Rs. 6558416.70. This shows an increase of 40.54 per cent. To find out whether such increase in the sales of the industry is statistically significant or not, the following null hypothesis was framed. 'The sales of the respondents have not significantly increased after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the value of sales after getting support when compared to that one before getting support is statistically significant as the calculated 't' value (8.878) is greater than its corresponding table value (2.58) at one per cent level. Therefore the null hypothesis is rejected. Hence it may be concluded that due to the institutional support, the sales of the industry substantially increased.

**CHANGE IN AVERAGE PROFIT**

The primary objective of business is to produce and sell goods for profit, of course, through the satisfaction of human wants. Business of all kinds entertains an idea of earning profit at the maximum. Profit is the amount of money that a company receives from its normal business activities, usually the sale of goods and service. A business which does not earn profit cannot stay in the market for a longer period. The income of enterprise, therefore, must exceed expenditure over a period of time. Profit is necessary for the enterprise to ensure its own survival, growth and expansion. The business enterprise should work for reasonable profit which should cover its own future risk. If the profit is made by over-charging customers and indulging in malpractices such as hoarding, black-marketing, smuggling, it will be against the ethics of business. The profit of the industry was estimated before and after getting support from the institutions and the results of test of significance are presented in Table 10.

**TABLE 10: CHANGE IN AVERAGE PROFIT AND TEST OF SIGNIFICANCE**

Period	Average Profit (Rs.)	Percentage Change	"t" Value
Before getting support from the institutions	506900.00	-	19.287**
After getting support from the institutions	622070.00	+22.72	

Source: Primary data

\*\* Significant at one per cent level

Table value at 1% level of significance 2.58

It is clear that Table 10 shows that before getting support, the average profit of the industry had been Rs. 506900.00 and after getting support it was Rs. 622070.00. This shows an increase of 22.72 per cent. This increase may be due to the increase in production and sales. In order to find out whether such increase in the profit of the industry is statistically significant or not, the following null hypothesis was framed. 'The profit of the respondents has not significantly increased after getting support from the institutions'. The results of the test of significance revealed that the apparent increase in the profit of the industry after getting support compared to that one before getting support is statistically significant as the calculated 't' value (19.287) is greater than its corresponding table value (2.58) at one per cent level. Therefore, the null hypothesis is rejected. Hence it may be concluded that due to the institutional support the profit of the industry has increased.

**CONCLUSION**

The financial impact of institutional support on the sample entrepreneurs was measured by the extent of increase or decrease in the selected ten variables before and after getting support from the institutions. The effective quantitative change in each variable was analysed and tested. All the variables consisting of building, machinery, vehicles, raw materials, finished goods, working capital, capacity utilisation, production, sales and profit of the industries significantly increased. The finding of the present study shows that the institutions had a favorable impact on the entrepreneurs of micro small medium enterprises.

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**HEALTH AND NUTRITIONAL STATUS OF CHILDREN AMONG EMIGRANT HOUSEHOLDS IN KERALA**

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**ABSTRACT**

Labour migration is a common phenomenon today, both within the Third World and between it and the industrialized countries. Among the south Asian emigrant workers, Indians constitute a higher proportion and among the Indian emigrant workers to the Middle East, more than half were from Kerala. The study assumes that labour emigration from villages significantly improves the socio-economic, demographic and health status of those left behind in the emigrants' households. The additional income earned in the destination may provide additional resources to be spent on health care or other health-improving consumption goods, such as more nutritious foods. In addition to a direct income effect on health, migration may influence child health through other non-monetary channels. One such channel is the transfer of health information (Donato et al., 2001). Migrants could gain information about health knowledge while abroad, and pass it on to the origin along with remittances and other social capital gained from abroad. Such information may include better understandings of contraceptive practices, the importance of sanitation or the beneficial impact of a proper diet, exercise or regular visits to the doctor. This health knowledge could alter health practices or lifestyle choices that could in turn improve health outcomes including child health (Durand, Goldring and Massey, 1994; Hildebrandt, 2004). Only a limited number of studies were carried out in India, in the field of international migration as compared to internal migration. As far as Kerala is concerned such studies are found to be very rare. The main objectives of the present study are to examine the socio-economic, demographic characteristics of children less than six years in emigrant and non-migrant households and to study the differentials in health and nutritional status of children under six years in the emigrant and non-migrant households. Data for the study were collected from both rural and urban areas of three districts viz, Thiruvananthapuram, Pathanamthitta and Malappuram in Kerala using a structured questionnaire. A total of 300 emigrant households were interviewed. Three hundred non-migrant households were also selected randomly from the sample areas, 210 from rural and 90 from urban areas respectively. Apart from univariate and bivariate statistical techniques including Chi-Square analysis have been used for the analysis of data. The overall findings of the study reveal that the status and health outcomes of women and children in the emigrant households are comparatively better than that of their non-migrant counterparts. Though Kerala has per capita income below national level, the different social and demographic indicators imply that Kerala has fared well in its demographic achievements compared to other states in India. Remittances from abroad as well as the changed perceptions of the emigrants have helped Kerala in achieving and maintaining high levels of development. Therefore the study concluded that emigration had some positive impact on women's status and health of children in Kerala.

**KEYWORDS**

emigrant households, health status, nutritional status.

**INTRODUCTION**

Migration is an important component in the growth of the population and labour force of an area. Currently nearly 200 million people live outside the country of their birth and the number of international migrants is set to increase in the years to come. The ILO estimates that there are more than 42 million migrant workers world wide, not including the million's of illegal migrants. The need to manage the growing flows of international migrants for the benefits of sending, receiving and transit countries as well as for the benefits of the migrants themselves is one of the most important challenges of the 21<sup>st</sup> century. "Migrant workers are an asset to every country as they bring their labour, let us give them the dignity they deserve as workers" (ILO, 2008). Among the south Asian emigrant workers, Indians constitute a higher proportion and among the Indian emigrant workers to the Middle East, more than half were from Kerala (Govt Kerala, 2009; Nayyar, 1994, Prakash, 1998). Emigration of Kerala remains strong, with a latest study conducted by CDS in 2004 showing that the number of emigrants went up by 35 percent in last five years from 13.6 lakhs in 1999 to 18.4 lakhs in 2004 (Govt. Kerala, 2006). The country wise destinations of emigrants from Kerala show that about 90 percent of the emigrants were concentrated in the Gulf countries and the remaining 10 percent to USA, European countries and Africa (Govt. Kerala, 2006; Zachariah, 2004). The places of origin of emigrants in the state are unevenly distributed. Recent studies show that among the districts in Kerala, Malappuram ranks first with a total emigrant population and Wayanad the least. Thrissur ranks second, Thiruvananthapuram third followed by Kollam (Government of Kerala, 2000). Pathanamthitta district also shows a high rate of concentration of emigrants (Zachariah et al., 1999). Several villages in Kerala have experienced significant changes in their socio-economic status because of the enormous emigrant remittances (Government of Kerala, 2006; Sekhar, 1993; Prakash 1998).

A large part of the savings of NRIs (Non Resident Indians) credited in India in periodic remittances through banking channels. In 2003, India passed a milestone when Indian Diaspora top for worker remittances with \$23.0 billion in remittances, ahead of other major countries like Mexico and the Philippines (World Bank, 2005).

The health of the child and the mother are inseparable. Health of the child is directly or indirectly associated with different outcome variables such as age of mother at the time of delivery, type of delivery, antenatal problems and care, timing or type of birth (on-time or premature), birth weight of the child and nutritional status. A child born prematurely or with a low birth weight is likely to be exposed to the risks of infections and death during the first few months of life (Agarwal, 1982; Sachdev, Iyer and Bhargava, 1991; Dhar et al. 1992). Moreover, a premature child is more likely to be born with a low birth weight. The risks of malnutrition and infections are higher for children born prematurely or with a low birth weight (WHO, 1991; Miller, 1992, Sabu padmadas, 2000). Malnutrition among children age below five (35 per cent) which is close to 9.4 million children outside the immunization network is the biggest challenge that India needs to overcome to achieve the millennium development goals. Under birth weight births, sanitation and neonatal mortality are some issues that need to be addressed urgently, according to a Report "A World Fit for Children- Statistical Review" released by the UNICEF (2007). The report also reveals that about one-third of the under weight children under age five live in India also has the largest pool of never immunized (including DPT and Polio) children in the world- 9.4 million. Of the 19 million infants in the developing world with low birth weights, 8.3 million are in India it is estimated that 22 million women in 2005-06 were married below 18 years of age.

One may expect the child health to be positively affected by migration for a number of reasons. First, the additional income earned in the destination may provide additional resources to be spent on health care or other health-improving consumption goods, such as more nutritious foods. In addition to a direct income effect on health, migration may influence child health through other non-monetary channels. One such channel is the transfer of health information (Donato et al., 2001). Migrants could gain information about health knowledge while abroad, and pass it on to the origin along with remittances and other social capital gained from abroad. Such information may include better understanding of contraceptive practices, the importance of sanitation, or the beneficial impact of a proper diet, exercise, not smoking, or regular visits to the doctor. This health knowledge could alter health practices or lifestyle choices that could in turn improve health outcomes including child health (Durand, Goldring and Massey, 1994; Grossman, 1977; Hildebrandt, 2004). In this context, this study

examine whether health differences exist between the children of emigrant and non-migrant families in the study areas, and whether these differences are the direct consequence of household migration status.

Only a limited number of studies were carried out in India, in the field of International migration as compared to internal migration. As far as Kerala is concerned, such studies are found to be very rare. Majority of the studies conducted on international migration have concentrated mainly on the economic aspects, ignoring the social, demographic and health consequences. The present study is an attempt in this direction.

## OBJECTIVES

The main objectives of the present study are:

- 1) To study the background characteristics of children in emigrant and non-migrant households.
- 2) To study the impact of emigration on health and nutritional status of children.

## DATA AND METHODS

Data for the study were collected from both rural and urban areas of three districts viz, Thiruvananthapuram, Pathanamthitta and Malappuram in Kerala using a structured questionnaire during the period April to May, 2009. A total of 300 emigrant households (each household should have a women, having at least one birth during the last six years preceding the survey date) were interviewed. For a comparison, three hundred non migrant households were also selected randomly from the sample areas satisfying the above criteria. One fourth of the samples were selected from urban areas

The unit of analysis of this study is the "household". The study assumes that labour emigration from villages significantly improves the socio-economic, demographic and health status of those left behind in the emigrants' households. Univariate and Bivariate analysis including Chi-square analysis have been performed in the study.

## BACKGROUND CHARACTERISTICS OF CHILDREN (less than Six years)

Children are assets of the future of every nation. This section deals with the information on maternal and background characteristics of children collected from the emigrant and non- migrant households for all births during the last six years preceding the survey date in the study areas. The total number of birth during six years period before the survey date comes to 713, out of which the women in emigrant households have 367 births and the corresponding number for women in non-migrant households was 346.

**TABLE 1: PERCENTAGE DISTRIBUTION OF BACKGROUND CHARACTERISTICS OF CHILDREN UNDER SIX YEARS**

Characteristics	Emigrants		Non-migrants		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Age of children in months						
<12	56	15.3	62	17.9	118	16.5
12-35	135	36.8	133	38.9	268	37.6
35-59	133	36.2	122	35.3	255	35.8
≥60	43	11.7	29	8.4	72	10.1
Sex of child						
Male	178	48.5	161	46.5	339	47.5
Female	189	51.5	185	53.5	374	52.5
Birth Order						
1	196	53.4	193	55.8	389	54.6
2	135	36.8	125	36.1	260	36.6
3+	36	9.8	28	8.1	64	9.0
Residence						
Urban	126	34.3	119	34.4	245	34.4
Rural	241	65.7	227	65.6	468	65.6
Religion***						
Hindu	178	48.5	209	59.4	387	54.3
Muslim	148	40.3	101	29.2	249	34.9
Christian	41	11.2	36	10.4	77	10.8
Standard of living Index						
Low	68	18.5	112	32.4	180	25.4
Medium	117	31.9	151	43.6	268	37.5
High	182	49.6	83	24.0	265	37.1
Mother's Education						
≤9	37	10.1	128	37.0	165	23.1
10-11	83	22.6	79	22.8	162	22.7
12-14	75	20.4	34	9.8	109	15.3
≥15	172	46.9	105	30.3	277	38.8
Place of delivery***						
Public health facility	132	36.0	229	66.2	361	50.6
Private health facility	235	64.0	117	33.8	352	49.4
Type of delivery**						
Normal	270	73.0	295	85.3	565	79.2
Caesarean	97	26.4	51	14.7	148	20.8
Preceding birth Interval in months***						
<12	48	13.1	41	11.8	89	12.5
12-23	38	10.4	116	33.5	154	21.6
24-35	61	16.6	81	23.4	142	19.9
36-59	158	43.1	81	23.4	239	33.5
≥60	62	19.9	27	7.8	89	12.5
Total	367	100.00	346	100.00	713	100

\* P <0.05, \*\* P<0.01, \*\*\* P<0.001



Age composition of children shows that nearly 18 percent of children in non-migrant households and 15 percent of emigrant's children are under the age of one year. The proportion of children between one year and three years among emigrant and non-migrant households are about 37 percent and 39 percent respectively. Mean age of children under six years is --- months. Findings show that 66 percent of children were residing in rural areas and the remaining 34 percent in urban, in both the emigrant and non-migrant households. In emigrant households, about 48 percent of the children less than six years are males and 52 percent are females. The corresponding proportions for male and female children less than six years are more or less the same for non-migrant households. Religious composition of children among emigrant households reveals that about 49 percent are Hindus, 40 percent Muslims and the remaining 11 percent are Christians, while the proportions of children constituting Hindus, Muslim and Christians among non-migrant are 59.4 percent, 29.2 percent and 10.4 percent respectively. The standard of living Index shows that children in emigrant households have a significantly high level of living compared to non- migrants. About two third of children in emigrant households have high living standard, while only one fourth of their counterparts have the same. A significant differential was observed in the level of mother's education among emigrant and non-migrant groups.

An important goal of reproductive and Child health programme is to encourage deliveries under proper hygienic conditions under the supervision of trained health professionals. In Kerala, almost all births in urban areas were institutional births, whereas in rural areas, a small percent of births were noninstitutional births (NFHS 3, 2005-06). The present study shows that all the births in the six years preceding the survey took place in health facilities. Findings reveal that about two third of births among emigrant women took place in private health facilities and the remaining 36 percent in public health facilities. A reverse result is found among non-migrants. More than two third (66 percent) of births among non-migrant women took place in public health facilities. With regard to the main reasons for the above differential concerning the availing of medical facilities, emigrant women reported that they prefer private hospitals because they got enough privacy, easy accessibility of services, availability of rooms, friendly behaviour of doctors and other health staff, better cleanliness and hygiene etc in private health facilities. Timing in private health facilities is also convenient for emigrant households.

Now, caesarean section deliveries have increased in Kerala compared to olden days. The present study reveals that about one-fourth (26 percent) of the children among women in emigrant households (born from the past six years to the survey period) were born by caesarean section and the corresponding proportion for non-migrant women was about 15 percent.

Studies so far show that children born to mothers who had a longer preceding birth interval are more likely to survive. Short birth intervals may also adversely affect mother's health (Panday et al., 1998; Padmadas, 2000). Table.1 shows that there exist a significant differential in the proportion of the preceding birth interval of children between emigrant and non- migrant households. About 45 percent of births occur within two years among non-migrants while the same proportion among emigrants is nearly 24 percent. Nearly two thirds of the births among emigrant women occur after an interval of three years but the corresponding figures among their counterparts is only one third. Study finding shows that emigration of husbands may have some positive effect on their fertility pattern. Our finding reveals that there was some difference in the birth spacing between emigrant and non-migrant women. This implies that emigration has been bringing some positive effect on spacing of birth among the couple of emigrant households.

The standard of living Index shows that children in emigrant households have a significantly high level of living compared to non- migrants. A significant differential was observed in the level of mother's education between emigrant and non-migrant groups. Finally, the results show that children in the emigrant households have better background than that of non-migrants.

#### **IMPACT OF EMIGRATION ON NUTRITIONAL STATUS AND CHILD HEALTH**

Maternal and child health is vital aspect of health care in any society. Childbearing imposes additional health needs and problems on women, physically, psychologically and socially. Improved reproductive health is closely related with women's status. The low status of females is reflected to their unequal access to food and medical care, which leads to malnutrition, deficit growth and development (Jejeebboy, 1991).

Ministry of Health and Family Welfare has sponsored many special schemes under MCH, RCH and NRHM programmes for the improvement of health of both mother and young children. Some of the programmes such as Universal immunization Programmes, Oral Dehydration Therapy, Maternal and Child Health Supplemental Programmes etc., provide facilities for mothers and children for prevention and treatment of several major diseases.

Children born to young mothers are more likely to be of low birth weight, which is an important factor contributing to their higher neonatal mortality rate and children born to women above age 30 are at a relatively high risk of experiencing congenital problems. Mother's age at the time of delivery was 20-29 years among 91 percent of children in emigrant households, as against 81 percent among non-migrant households. Mother's mean age at the time of delivery among emigrants and non- migrants are 25 years and 23 years respectively.

The survey gathered retrospective information on timing of births and birth weight for all children 12-71 months at the time of survey. The self-reported information showed that about 91 percent of births that occurred prior to six years of survey time were on- time. The above proportion is same for women among emigrant group and the control group. The birth weight of children less than 2500 grams are taken as low birth weight babies and children weighing  $\geq$  2500 grams are said to be normal weigh babies. Findings show that the proportion of women with low birth weight children (<2500 grams) was slightly higher (18 percent) in non-migrant group than in emigrant group (9 percent). Infant feeding practices have significant effects on both mother and children.

TABLE 2: HEALTH PROFILE OF CHILDREN AGE 12-71 MONTHS BY MIGRATION STATUS OF THE HOUSEHOLDS

Characteristics	Emigrants		Non-migrants		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
<b>Mothers age at the time of delivery**</b>						
< 20	10	3.2	15	5.3	15	2.5
20-29	281	90.4	231	81.3	522	87.7
≥ 30	20	6.4	38	13.4	58	9.7
<b>Timing of Birth</b>						
On - time	282	90.7	261	91.9	543	91.2
Premature	29	9.3	23	8.1	52	8.8
<b>Birth weight **</b>						
< 2500	29	9.3	52	18.2	81	13.6
≥ 2500	282	90.7	234	81.8	514	86.4
<b>Timing of first breast feeding</b>						
Immediately/within half an hour	235	75.6	224	78.9	459	77.1
Within one day	69	22.2	51	18.0	120	20.2
More than 24 hours	7	2.3	9	3.2	16	2.7
<b>Duration of breast feeding***</b>						
<12 months	15	48.8	51	18.0	66	11.1
12-23 months	179	57.6	147	51.8	326	54.8
≥ 24months	57	18.3	59	20.8	116	19.5
Still continuing	60	19.3	27	9.5	87	14.6
<b>Immunization Status **</b>						
Full	303	97.4	252	88.7	555	93.3
partial	8	2.6	32	11.3	40	6.7
<b>Vitamin A supplement**</b>						
Not received	23	7.4	48	16.9	71	11.9
Received	288	92.6	236	86.6	524	88.1
<b>Suffered diarrhoea during last two weeks prior to the survey**</b>						
Yes	273	87.8	228	80.3	501	84.2
No	38	12.2	56	19.7	94	15.8
<b>Acute Respiratory Infection during last two weeks prior to the survey***</b>						
Yes	269	86.5	213	75.0	482	81.0
No	42	13.5	71	25.0	113	19.0
<b>Stunted(low height for age)**</b>						
Yes	46	14.8	71	25.0	117	19.7
Not	265	85.2	213	75.0	478	80.3
<b>Wasted (low weight for height)*</b>						
Yes	37	11.9	50	17.6	87	14.6
No	274	88.1	234	82.4	508	85.4
<b>Underweight (low weight for age)**</b>						
Yes	40	12.9	60	21.1	100	16.8
No	271	87.1	224	78.9	495	83.2
Total	311	100	284	100	595	100

\* P < 0.05, \*\* P < 0.01, \*\*\* P < 0.001

Proper infant feeding starting from the time of birth is important for the physical and mental development of the child. Breastfeeding improves the nutritional status and reduces the morbidity and mortality of young children. From Table 2, it can be seen that there is not much difference in the timing of first breastfeeding after the birth of children in emigrant and non-migrant households.

The vaccination of children against six serious but preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles) has been a cornerstone of the child health care system in India. The Universal Immunisation Programme was introduced in 1985-86. The main objectives of this programme were to cover at least 85 percent of all infants against the above six vaccine preventable diseases by 1990 and to achieve self-sufficiency in vaccine production and the manufacture of cold-chain equipment (MOHFW, 1991). The proportion of children (>12 months to < 72 months) fully vaccinated among emigrant households (97 percent) is somewhat higher than that of their counterparts (89 percent). The low immunisation coverage of measles was the major reason for partial immunisation of children. The respondents reported that their children had measles disease before attaining the time of measles vaccination (9 months old) after which no vaccination was taken. The immunisation coverage in the state has been coming down in recent years and the percentage of fully vaccinated children is between 75 percent (NFHS- 3) and 82 percent (UNICEF Coverage Evaluation Survey) in India.

Vitamin A deficiency is one of the most common nutritional deficiency disorders in the world, affecting millions of children worldwide. Information was sought on whether children ever received a dose of vitamin A supplementation. Mothers in the non-migrant households reported that about 17 percent of children have not received vitamin A supplementation but the corresponding proportion for children in emigrant households is 7 percent. Only 1.6 percent of children in emigrant households have not received any IFA tablets or syrups, but the same proportion for their counterpart children is 5.5 percent.

Mothers of children age 12-71 months were asked if their children suffered acute respiratory infection, fever, or diarrhoea during the two weeks preceding the survey, and if so, the type of treatment received. Acute respiratory infection is a major cause of illness among infants and children and the leading cause of childhood mortality. The prevalence of AIR is higher, at about 25 percent among non-migrant children and the same proportion among children in emigrant households is 14 percent. All the affected children in emigrant households sought medical treatment, while only 75 percent of their counterparts sought treatment for acute respiratory infection of their children.

Fever is less prevalent among children in emigrant households compared to the non-migrants. Diarrhoea is the second most killer of children, following acute pneumonia. Deaths from acute diarrhoea are most often caused by dehydration due to loss of water and electrolytes. Table 2 shows that two out of ten children under six years in non-migrant households suffered from diarrhoea during the two weeks preceding the survey. The same proportion among their counterparts is 12 percent. All children received treatment for diarrhoea.

The study reveals that the prolonged absence of men encourages women in the emigrant households to take major roles in managing the household, allows women to grow independently, and helps to develop new interests and the discovery of hidden potential. The overall findings of the study concluded that the overall health outcomes nutritional status of children in the emigrant households is comparatively better than that of their non-migrant counterparts.

**CONCLUSION**

Findings show that currently married women in emigrant families were better educated than that of women in non-migrant families. Mean actual family size among currently married women in the emigrant households was nearly two children and their mean desired family size was about three children. This shows that emigration of husbands may have some positive effect on their fertility pattern. Mean first and second birth intervals of currently married emigrant women are higher than that of non-migrant women. This implies that emigration has been bringing some positive effect on spacing of birth among the couple of emigrant households. Proportion of married women in the emigrant households never used any kind of family planning methods at the time of survey was comparatively higher than that for women in the non-migrant households. More than two-fifth of the emigrant households were Muslims. Mean age of children under six years is 34 months and this proportion is more or less same in both emigrants and non-migrants. The standard of living Index shows that children in emigrant households have a highly significant level of living compared to non-migrants. The present study shows that all the births in the six years preceding the survey took place in health facilities. About two third of births among emigrant women were took place in private health facilities. A reverse result is found among non-migrants. Main reasons for the above differential concerning the availing of medical facilities, emigrant women reported that they prefer private hospitals because they got enough privacy, easy accessibility of services, availability of rooms, friendly behaviour of doctors and other health staff, better cleanliness and hygiene etc in private health facilities. Timing in private health facilities is also convenient for emigrant households.

Status of women as assessed analysing the variables such as, freedom of movement of women, their economic autonomy, their role in reproductive decision making and their role in activities outside home women in emigrant households have significantly high freedom of movement than their counterparts. The economic autonomy among women in emigrant households is significantly higher than that of women in non-migrant households. A great proportion of women in emigrant households have high role in reproductive decision-making than their non-migrant counterparts. The study reveals that the prolonged absence of men encourages women in the emigrant households to take major roles in managing the household, allows women to grow independently, helps to develop new interests and the discovery of hidden potential. The study concludes that migration can play an important role in modifying the gender role of left behind women by enhancing their position in their families and modifying the cultural values in traditional communities.

Proportion of women who had complications during pregnancy among non-migrant households is higher than that of women in emigrant households. Proportion of women in non-migrant households who had faced any complication during delivery is significantly higher than that of their counterparts.

Findings show that the proportion of women with low birth weight children (<2500 grams) was slightly higher in non-migrant group than in emigrant group. The proportion of children with a birth weight between 2500 – 2999 grams was higher among control group but the percentage of children has birth weight 3000 grams was higher among emigrant group. With regard to dose of vitamin A supplementation given to children, about 18 percent of children in non-migrant households and 10 percent of children in emigrant households have not received it. The prevalence of AIR is higher, among non-migrant children than children in emigrant households. All the affected children in emigrant households sought medical treatment, while only 75 percent of their counterparts sought treatment for acute respiratory infection of their children. Results show that two out of ten children under six years in non-migrant households suffered from diarrhoea during the two weeks preceding the survey. The same proportion among their counterparts is ten percent. All children received treatment for diarrhoea. The overall findings of the study reveal that the status and health outcomes of women and children in the emigrant households are comparatively better than that of their non-migrant counterparts. Though Kerala has per capita income below national level, the different social and demographic indicators imply that Kerala has fared well in its demographic achievements compared to other states in India. Remittances from abroad as well as the changed perceptions of the emigrants have helped Kerala in achieving and maintaining high levels of development. Therefore the study concluded that emigration had some positive impact on women's status and health of children in Kerala.

The study suggests that, for reducing the gap between emigrants and non-migrants

1. Steps should be taken by the Govt. at local level to introduce social welfare programmes such as ICDS programmes, counselling, IEC activities etc. among non-migrant families, especially among those who have low standard of living.
2. Implement income generating small-scale industrial activities for women in lower economic strata, with some subsidies.
3. Improve the Govt. health facilities quality of services, for the necessities of economically backward section, so that they can afford to avail these services.
4. Govt. should take measures or steps to promote emigrants and provide timely help by developing policies and programmes at the local level itself.

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**A STUDY ON ORGANIZATIONAL CULTURE AND CLIMATE WITH SPECIAL REFERENCE TO HVF, AVADI**

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**ABSTRACT**

Organisational climate defined as the shared perceptions of organizational members concerning practices, behaviours, and procedures that are rewarded and supported in the workplace. Organizational culture determines the way organizational members interact with each other and outsiders. Heavy Vehicles Factory is the world's largest government operated production company and the oldest industrial unit. It comes under the ministry of defense. It manufactures heavy battlefield equipment, including Vijayantas, T-72 tanks and other equipments also. Defense department requires more energetic and enthusiastic workforce to complete the tasks successfully. The products manufactured by these factories are highly important because it will serve and protect our nation. Also this factory requires creativity and innovation to come with new techniques and technologies which helps the nation to become independent in the field of defense. So these kinds of manufacturing unit ensures/requires positive organizational climate and culture which fosters creativity and innovation. This study attempts to investigate the working conditions of employees at HVF avadi and to identify the factors influencing the positive organizational climate. The sample size taken from the total population is one hundred and twenty. The findings and recommendations exhibits that since the employees are handling with heavy machines organization should ensure the safety and cleanliness of the working environment. They can strictly follow 5S framework, so as to achieve/ensure a well organized environment. The management could conduct a potential appraisal for the employees and could make use of the ability, skills and knowledge of the employees. Finally from the study it is identified that the overall perception of the employees regarding the working environment is positive.

**KEYWORDS**

organizational climate, culture, innovation, creativity, positive climate.

**INTRODUCTION & INTRODUCTION OF THE STUDY**

The human resource is considered as the backbone of any enterprise is it public, private or corporate. The human resources are the most dynamic and important resources of the various kinds of resources that are needed to move the wheels of an economic activity. Organizational climate, sometimes known as Corporate Climate is the process of quantifying the "culture" of an organization. It is a set of properties of the work environment, perceived directly or indirectly by the employees, that is assumed to be a major force in influencing employee behavior. Organizational culture tends to be shared by all or most members of some social groups something that older members usually try to pass on to younger members; shapes behavior and structures perceptions of the world.

**BASIC ELEMENTS OF ORGANIZATIONAL CULTURE**

Organizational culture determines the way organizational members interact with each other and outsiders. It must be created and sustained to develop congenial environment in the organization. It has three basic elements artifacts, espoused values and basic assumptions. It is expressed in terms of norms, values attitudes and beliefs shared by organizational members. Its major functions include sense of identity, enhancement of commitment and reinforcement of behavior. It has stray impact on the performance of the organization. It is a descriptive study and not evaluative study. It has both functional as well as dysfunctional aspects. Sociability and solidarity are two factors that determine organizational culture.

Organizational climate is a measure to perceive the organization by its members. It determines the employee attitude towards organizational life. It works on factors like job description, organizational structure, performance and evaluation standards, leadership styles, challenges and innovation, motivation, communication, goals and control process.

It provides system of shared meaning among members. Organizational climate must be created and sustained in a way that it can develop congenial environment in the organisation. Organizational culture has basic elements of culture and they are artifacts, spoused values and basic assumptions. Organizational culture is expressed in terms of norms, values, attitudes and beliefs shared by organizational members. Organizational culture has its major functions and they include sense of identity, enhancement of commitment and reinforcement of behavior.

Organizational climate and culture has strong impact on the performance of the organization. There are several factors that influence organizational culture that help in creation and sustaining of culture in an organization. It creates its impact on work place and so developing an ideal organizational culture that helps in smooth functioning of all members of the organization. An ideal and strong organizational culture can experience some barriers and they can be barriers to change.

Organizational culture is a descriptive study and not evaluative study. It has its functional as well as its dysfunctional aspects. There are two factors that determine organizational culture and they are sociability and solidarity. These two dimensions yield four types of organizational culture. They are network culture, mere nary culture, fragmented culture and communal culture.

**COMPANY PROFILE**

The Heavy Vehicles Factory (HVF) is located at Avadi in Chennai in the Indian state of Tamil Nadu. Avadi is an acronym for Armoured Vehicles and Ammunition Depot of India. HVF was set up in 1965 by the Government of India to manufacture heavy battlefield equipment, including Vijayantas and T-72 tanks. Currently, HVF manufactures India's main battle tank Arjun and the T-90s. The Engine Factory of HVF functions separately from HVF.

Heavy Vehicle Factory is located at Avadi. It is one of the Central Government Organization under the Ministry of Defence. It manufactures and supplies various types of Armored Fighting Vehicles to Indian Army. It consists of approximately 5000 employees.

**LOCATION AND AREA**

Heavy Vehicles Factory (HVF) is located at AVADI (Armoured Vehicle and Ammunition Depot of India), a Northern suburb of Chennai, well connected by Rail & Road transport, approximately 21 Km away from Chennai Central Railway Station. In the vicinity, there are several other Ordnance Factories such as Engine Factory (EFA), Ordnance Clothing Factory (OCF) and Defence Installations like Combat Vehicle Research and Development Establishment (CVRDE), Ordnance Depot etc. There are also Central Reserve Police Force and Air Force Station available in the nearby area. The Factory area is spread over 248.50 acres and Estate 873 acres

**REVIEW OF THE LITERATURE**

The concept of organizational climate has a long history in the organizational literature. From early writers (e.g. Litwin & Stringer, 1968) to more recent research (e.g. Ashkenasy, Wilderom & Peterson, 2000; Schneider, 1990) the concept has been used to reflect the atmosphere of work and relationships and has been regularly shown to have an impact on work-related outcomes and aspects of company performance (e.g. Patterson, Warr & West, 2004). Despite ongoing

debates as to the theoretical status and measurement of organizational climate (James & Jones, 1974; Schneider, 2000) and how climate differs from the concept of organizational culture (Denison, 1996; Payne, 2000), there is a general consensus regarding the definition and underlying assumptions of organizational climate. Schneider (1985, 1990) defines climate as the shared perceptions of organizational members concerning practices, behaviours, and procedures that are rewarded and supported in the workplace. Others have viewed it as a set of concepts to understand the context of the organization, representing the norms, attitudes, feelings and behaviours prevalent at the workplace (Litwin & Stringer, 1968; Pugh & Payne, 1976; Schneider & Bartlett, 1968, 1970; Denison, 1996). **Ravasi and Schultz (2006)** state that organizational culture is a set of shared mental assumptions that guide interpretation and action in organizations by defining appropriate behavior for various situations.

**HOFSTEDE** relates culture to ethnic and regional groups, but also organizations, profession, family, to society and subcultural groups, national political systems and legislation, etc. "According to **Mulder's Power Distance Reduction theory** subordinates will try to reduce the power distance between themselves and their bosses and bosses will try to maintain or enlarge it", but there is also a degree to which a society expects there to be differences in the levels of power.

## OBJECTIVES OF THE STUDY

- A Study on organizational culture and climate with special reference to Heavy Vehicles Factory (HVF), Avadi.
- To study the employees perception about various aspects of the organizational culture.
- To study the attitude of the employees towards their job and the organization.
- To understand the working environment and work group of HVF.

## SCOPE OF THE STUDY

1. The scope of the project was to include major aspects of the organization.
2. It also highlights that whether the employees have positive attributes towards the organization.
3. This study deals with employees attitudes towards various aspects of the organization.
4. This study focuses on today's turbulent, often chaotic, environment, which depends on employees making use of their talents in full.

## LIMITATIONS OF THE STUDY

1. The study was limited to a period of three months only.
2. As the employees were coming under rotary and night shifts, I was unable to obtain the feedback from maximum employees.
3. As HVF is having more than 72 sections, which covers more than 8sq.kms my visit was restricted to sensitive sections.

## METHODOLOGY

From the population sample were taken to study the culture and climate of HVF. The Sample size drawn from the total population is about 120 employees. Simple random sampling method is used to optimize the data collection. Lottery method is used to pick the sample from the population. Various instruments were used to collecting the data like questionnaire, observation, interview etc..A Collected data were analyzed by using Percentage analysis, Chi-Square, Spearman's Rank Correlation. Based on this analysis the findings and recommendations were derived.

## DATA ANALYSIS AND INTERPRETATION

### PERSONAL INFORMATION

TABLE 1: AGE WISE CALCULATION

Sl.No.	Opinion	No. Of Respondents	Percentage
1.	18-25	18	15
2.	26-30	32	26.6
3.	31-35	27	22.5
4.	36 & above	43	35.8
	Total	120	100

### Interpretation

According to the table, 36% of the respondents belongs to the age group of 36 & above and 15% of the respondents belong to the age group of 18-25.

TABLE 2: YEAR OF SERVICE

Sl.No.	Opinion	No. Of Respondents	Percentage
1.	< 5 years	27	22.5
2.	6-10 years	32	26.6
3.	11-20 years	42	35%
4.	> 21 years	19	15.8%
	Total	120	100

### Interpretation

According to the table it is found that, about 26.6% of the respondents have 6-10 years of service in HVF and about 15.8% of the respondents have more than 21 years of service in HVF.

### ADMINISTRATION

TABLE 3: SATISFACTION WITH THE ORGANIZATION'S ADMINISTRATIVE POLICIES

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	48	40
2	Satisfied	12	10
3	Neutral	35	29
4	Dissatisfied	12	10
5	Highly Dissatisfied	13	11
	Total	120	100

### Interpretation

According to the table 40% of the respondents says that they are highly satisfied with the organization's administrative policies and 10% of the respondents say that they are satisfied as well as dissatisfied with the organization's administrative policies.

**TABLE 4: CO-ORDINATION WITH THE DEPARTMENTAL WORKS**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Very Often	12	10
2	Often	35	29
3	Sometimes	13	11
4	Rarely	54	45
5	Never	6	5
	Total	120	100

**Interpretation**

According to the table, 45% of the respondents says that the works of the department are rarely coordinated and 5% of the respondents says that the works of the department are never been well coordinated.

**TABLE 5: AWARENESS ON ORGANIZATION'S OBJECTIVE, VISION AND MISSION**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Strongly Agree	83	69
2	Agree	20	17
3	Neither agree nor Disagree	17	14
4	Disagree	0	0
5	Strongly Disagree	0	0
	Total	120	100

**Interpretation**

From the above analysis it is clear that,69% of them strongly agree that they are aware on the organizations objectives ,vision and mission,17% of them neither agree nor disagree about the organizations objective, vision and mission.

**TABLE 6: ADEQUATE MANPOWER FOR THE WORK**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Strongly Agree	23	19.2
2	Agree	63	52
3	Neither agree nor Disagree	25	21
4	Disagree	7	6
5	Strongly Disagree	2	1.6
	Total	120	100

**Interpretation**

From the above it is clear that, 52% of them strongly agree that they are been given adequate manpower for the work, and 1.6% of them strongly disagree that they are not been provided adequate manpower for the work.

**TABLE 7: WORK UNDER VARIOUS SECTIONS**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Very Often	32	27
2	Often	22	18.3
3	Sometimes	15	12.5
4	Rarely	34	28
5	Never	17	14
	Total	120	100

**Interpretation**

According to the table, 28% of the respondents says that they are been allowed to work under various production sections and 13% of the respondents says that only sometimes they are been asked to work under various production sections.

**MOTIVATION**

**TABLE 8: ADEQUATE TRAINING**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Very Often	44	36.6
2	Often	37	31
3	Sometimes	23	19.1
4	Rarely	13	10.8
5	Never	3	2.5
	Total	120	100

**Interpretation**

According to the table, 36.6% of the respondents says that they are been provided adequate training and 2.5% of the respondents says that they are not been provided adequate training.

**TABLE 9: UTILIZATION OF ABILITY, SKILLS AND KNOWLEDGE**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Fully Utilized	26	21.6
2	Utilized	57	47.5
3	Partially	33	27.5
4	Not Utilized	4	3.3
	Total	120	100

**Interpretation**

According to the table, 48% of the respondents says that their ability skills and knowledge are been fully utilized and 3% of the respondents says that their ability skills and knowledge are not been utilized.

**TABLE 10: RECOGNITION AND APPRECIATION OF WORK**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Strongly Agree	37	30.8
2	Agree	35	36.6
3	Neitheragree nor Disagree	15	2.5
4	Disagree	23	19.1
5	Strongly Disagree	10	10.8
	Total	120	100

**Interpretation**

From the above it is clear that, 37% of them agree that they are been recognized and appreciated for the work, and 3% of them are in a neutral position that they neither agree nor disagree towards the recognition and appreciation of work

**TABLE 11: INITIATIVE TO EXERCISE NEW METHODS AND CREATIVE IDEAS**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Very Often	17	14.1
2	Often	58	48.3
3	Sometimes	15	12.5
4	Rarely	24	20
5	Never	6	5
	Total	120	100

**Interpretation**

According to the table, 48% of the respondents says that often they are been asked to exercise new methods and creative ideas and 5% of the respondents says that they are not been asked to exercise new methods and creative ideas.

**TABLE 12: VIEW ON SALARY/WAGES AND MONETARY BENEFITS**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	63	52.5
2	Satisfied	33	27.5
3	Neutral	24	20
4	Dissatisfied	0	0
5	Highly Dissatisfied	0	0
	Total	120	100

**Interpretation**

According to the table 53% of the respondents says that they are highly satisfied on the salary/wages and monetary benefits and none of the respondents have no comments on the salary/wages and monetary benefits.

**TABLE 13: RECOGNITION OF VALUABLE WORK**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Very Often	19	16
2	Often	48	40
3	Sometimes	37	31
4	Rarely	12	10
5	Never	4	3.3
	Total	120	100

**Interpretation**

According to the table, 40% of the respondents often says that their valuable work is been recognized appropriately and 3% of the respondents says that never their work is been recognized appropriately.

**TABLE 14: SATISFACTION WITH THE REWARDS AND RECOGNITION PROCEDURE**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	12	10
2	Satisfied	54	45
3	Neutral	35	29.1
4	Dissatisfied	13	10.8
5	Highly Dissatisfied	6	5
	Total	120	100

**Interpretation**

According to the table, 45% of the respondents says that they are satisfied with the rewards and recognition procedure in the organization and 5% of the respondents are highly dissatisfied with the rewards and recognition procedure in the organization.

**TABLE 15: MOTIVATION BY THE ORGANIZATION**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Strongly Agree	23	19.1
2	Agree	65	54.1
3	Neitheragree nor Disagree	25	20.8
4	Disagree	7	5.8
5	Strongly Disagree	0	0
	Total	120	100

**Interpretation**

From the above it is clear that, 54% of agree that they are been motivated by the organization work, and 6% of disagree that they are not been motivated by the organization.



ENVIRONMENT

**TABLE 16: SATISFACTION WITH THE PRESENT WORKING CONDITION**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	48	40
2	Satisfied	35	29.1
3	Neutral	12	10
4	Dissatisfied	13	10.8
5	Highly Dissatisfied	12	10
	Total	120	100

**Interpretation**

According to the table,40% of the respondents says that they are highly satisfiedwith the present working condition in the organization and 10% of the respondents are highly dissatisfied with the present working condition in the organization.

**TABLE 17: SATISFACTION WITH THE PROVIDED SAFETY EQUIPMENTS AT THE WORKING AREA**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	54	45
2	Satisfied	36	30
3	Neutral	11	9.1
4	Dissatisfied	9	7.5
5	Highly Dissatisfied	10	8.3
	Total	120	100

**Interpretation**

According to the table,45% of the respondents says that they are highly satisfied with the safety equipments provided to them at the working area by the organization and 8% of the respondents are highly dissatisfied with the safety equipments provided at the working area by the organization.

**TABLE 18: PROPER STEPS TO CONTROL ALL POLLUTION**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Yes	59	49.1
2	No	61	50.8
	Total	120	100

**Interpretation**

According to the table,49.1% of the respondents says that the organization take proper steps to control all pollutions and 50.8% of the respondents prefer that the organization doesn't take any steps to control all pollutions.

**TABLE 19: RESOURCES TO PERFORM THE JOB**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Strongly Agree	23	19.1
2	Agree	63	52.5
3	Neither agree nor Disagree	25	20.8
4	Disagree	7	5.8
5	Strongly Disagree	2	1.6
	Total	120	100

**Interpretation**

From the above it is clear that, 53% of them agree that they are been given enough resources to perform the job effectively and 1.6% of them strongly disagree that they are not been provided enough resources to perform the job effectively.

**WELFARE**

**TABLE 20: SATISFACTION WITH THE UNIONS AND ASSOCIATIONS FUNCTIONING IN THE FACTORY**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	27	45
2	Satisfied	39	30
3	Neutral	42	9.1
4	Dissatisfied	5	7.5
5	Highly Dissatisfied	7	8.3
	Total	120	100

**Interpretation**

According to the table,45% of the respondents says that they are highly satisfied with the safety equipments provided to them at the working area by the organization and 8% of the respondents are highly dissatisfied with the safety equipments provided at the working area by the organization.

**TABLE 21: FEELING OF SAFETY THROUGH THE EMPLOYEE'S WELFARE ACTIVITIES AND IMPROVES PERFORMANCE**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Very Often	37	30.8
2	Often	26	21.6
3	Sometimes	42	35
4	Rarely	15	12.5
5	Never	0	0
	Total	120	100

**Interpretation**

According to the table, 35% of the respondents says that sometimes they feel safety through the employee's welfare activities and their performance is been improved and 13% of the respondents say that rarely they feel safety through the employee's welfare activities.

**TABLE 22: PERIODICAL HEALTH CHECK-UP BY THE ORGANIZATION**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Quarterly	0	0
2	Half-Yearly	29	24.1
3	Yearly	33	27.5
4	5 Years once	34	28.3
5	Never	24	20
	Total	120	100

**Interpretation**

From the above table it is clear that above 28.3% says that periodical health check-up are been carried out by the organization on 5 years once and there is no periodical health check-up carried by the organization on quarterly basis.

**TABLE 23: SATISFACTION WITH THE WELFARE ACTIVITIES OF THE ORGANIZATION**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	53	44.1
2	Satisfied	33	27.5
3	Neutral	26	21.6
4	Dissatisfied	8	6.6
5	Highly Dissatisfied	0	0
	Total	120	100

**Interpretation**

According to the table, 44% of the respondents says that they are satisfied with the overall welfare activities of the organization and 7% of the respondents are dissatisfied with the overall welfare activities of the organization.

**GRIEVANCE REDRESSAL SYSTEM****TABLE 24: GRIEVANCE REDRESSAL PROCEDURE IN THE ORGANIZATION**

Sl.No.	Opinion	No. Of Respondents	Percentage
1	Yes	78	65
2	No	42	35
	Total	120	100

**Interpretation**

According to the table, 65% of the respondents says that there is a grievance redressal procedure followed in the organization and 35% of the respondents says that there is no grievance redressal procedure followed in the organization.

**TABLE 25: GRIEVANCE BEEN SETTLED IN A TIME FRAME**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Very Often	36	30
2	Often	43	35.8
3	Sometimes	26	21.6
4	Rarely	12	10
5	Never	3	2.5
	Total	120	100

**Interpretation**

According to the table, 36% of the respondents says that often their grievance is been settled in a time frame and 3% of the respondents feel that their grievance is not been settled in a time frame.

**TABLE 26: SATISFACTION WITH THE GRIEVANCE SYSTEM**

Sl. No.	Opinion	No. Of Respondents	Percentage
1	Highly Satisfied	48	40
2	Satisfied	35	29.1
3	Neutral	12	10
4	Dissatisfied	13	10.8
5	Highly Dissatisfied	12	10
	Total	120	100

**Interpretation**

According to the table, 40% of the respondents says that they are highly satisfied with the grievance system in the organization and 10% of the respondents are highly dissatisfied with the grievance system.

**SUGGESTIONS AND RECOMMENDATIONS**

1. Management could conduct some awareness programme on Grievance handling procedure through which Grievance handling may be given more considerations.
2. To avoid the accidents in the working area proper uniform with shoes could provide a safety environment.
3. Management could conduct some brainstorming session through which workers must be allowed to make on the job decision making, so that they will be performing the job in much interesting way.
4. A well planned training and development activities is essentially needed through which the employees might perform better in their job.
5. Since the employees are handling with heavy machines organization should ensure the safety and cleanliness of the working environment. They may strictly follow 5S framework if possible, so as to achieve/ensure a well organized environment.
6. Management could conduct a General awareness programme on pollution through which an awareness can be created among the employees which will help to safeguard the employees.
7. The management could conduct a potential appraisal for the employees and could make use of the ability, skills and knowledge of the employees.

**CONCLUSION**

The study is an attempt to know the working environment in the organization and to increase productivity. From the study it is identified that the overall perception of the employees regarding the working environment is positive.

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### ABSTRACT

Commodity derivatives market in India has shown remarkable growth since its inception. Nationalized commodity exchanges, which established in 2003, have given a new option to investors for investment in various agri and non agri commodities. Commodity futures were introduced for price discovery and risk management but always there is a question mark on commodity futures trading, whether this leads to inflation or not. Mainly commodity prices are dependent on domestic as well as global demand and supply. Though the Government takes steps to control the prices of listed commodities when there is a sharp increase in prices due to speculation. This paper emphasizes on analyzing the trend between spot and future prices of agricultural commodity Guargum for November 2013 and January 2014 contract by preparing chart and factors affecting price volatility of Guargum.

### KEYWORDS

Commodity Market, Futures Trading.

### INTRODUCTION

Commodity markets have started in India in 2003 and captured good market share. There are four nationalized commodity exchanges namely National Commodity and Derivatives Exchange Ltd. (NCDEX), Mumbai, Multi Commodity Exchange (MCX), Mumbai, National Multi Commodity Exchange (NMCE), Ahmedabad; and National Board of Trade (NBOT), Indore. Forward Markets Commission (FMC) is the regulator of futures trading in India. Earlier FMC was under the Ministry of Consumer Affairs but as per the recent notification, FMC will work under Ministry of Finance. This notification was issued by the Government after the non payment of National Spot Exchange Ltd.(NSE).

The prices are interdependent but future and spot prices of agricultural commodities are affected by changes in domestic production due to rainfall, crop size, Government policies and regulations, prices fluctuations of the substitute products, season of harvesting and peak season etc. Many of the commodities namely Channa, Potato, Refined Soyabean, Sugar, Wheat, Guarseed and Guargum were banned to control the price fluctuations. Selected agricultural commodity Guargum was banned by Forward Market Commission (FMC) in March 2012 for future trading due to sharp rise in prices but now future contracts of Guargum has relaunched for trading from May 2013 onwards after being banned by FMC for 14 months.

The basis delivery center for this is Jodhpur and additional delivery centers include Bikaner, Nokha, Sri Ganganagar, Hanumangarh and Barmer in Rajasthan, Deesa in Gujarat, and Adampur and Sirsa in Haryana.

India is the leading producer of guar and guar gum in the world. It shares around 80 percent production of world, rest of major production comes from Pakistan. In India Rajasthan is leading producer of the guar seed and guar gum. It contributes around 70 % production of India. Haryana, Gujarat and Punjab are other Guar producing states in India. Guar gum is used in a wide variety of industries, such as food, animal feed, textile, pharmaceuticals, personal care, health care, nutrition, cosmetics, paper, explosives, mining and oil drilling. The total area under guar cultivation this season is expected to increase by 21% over last. Rajasthan, Haryana, and Gujarat – the three key guar-producing states – have exceeded the sowing area target set by their respective agriculture departments.

With a strong carry forward stock from previous season, and a forecast for higher guar seed production as compared to last year, the market should witness good liquidity of seeds to meet current guar gum demand. Despite stable market conditions, the market once again showed its true character, as guar prices once again became volatile towards the end of August. Prices continued the upward trend well into the middle part of September. Prices were reigned in only after FMC stepped in. Due to speculation, Forward Market Commission (FMC) had imposed a special margin of 10% on the buyers of all traded contracts of Guargum at NCDEX to curb price volatility in the month of September 2013 and removed in Dec.2013.

### OBJECTIVES OF THE STUDY

Commodity futures market helps the different category of users to hedge the price risk of commodities against inflation. The research study is undertaken focusing on the following objectives:

- To examine the fundamental factors which influence the volatility of Guargum future prices.
- To analyze the trend of spot and future prices of agricultural commodity Guargum traded on NCDEX.

### HYPOTHESIS

**H0:-** There is no co-relation between the spot and future close prices of selected agricultural commodity Guargum.

**H1:-** There is co-relation between the spot and future close prices of selected agricultural commodity Guargum.

### REVIEW OF LITERATURE

Many of the studies have been done on the performance and efficiency of Indian commodity markets.

According to Agarwal Neeti and Kaur Gurbandini (2013), Commodity future market plays a important role in price discovery. They analyzed how price volatility is measured and arbitrage strategy can be applied in agricultural commodities for managing price risk.

Robe (2012) emphasized on the commodity-equity market linkages by following the trading activities.

Nilanjan (2010) had tested the efficiency of wheat futures market by determining whether future price of wheat can be used as reference and the impact of volatility of future prices on physical markets.

Abhijit Sen Committee (2008) reported that though agricultural price inflation accelerated during the post futures period, it does not necessarily mean that this was caused because of futures trading. One reason for the acceleration of price increase in that period was the relatively low agricultural prices, reflecting an international downturn in commodity prices.

A study by Lokare (2007) found that although Indian commodity market is yet to achieve minimum critical liquidity in some commodities (sugar, pepper, gur and groundnut), almost all the commodities show an evidence of co-integration between spot and future prices revealing the right direction of achieving the improved operational efficiency, though at a slower rate.

According to Bhattacharya (2007), the varied prices of commodities at various mandis arise because of poor grading, differential rates of taxes and levies and inadequacy of storage facilities.

**RESEARCH METHODOLOGY**

**RESEARCH DESIGN**

There are mainly four major National Level Exchanges in India namely NMCE, NBOT, NCDEX and MCX but NCDEX is selected for the study because volume of selected commodity is traded greater than traded on other exchanges.

The research design for this study is analytical. Secondary data on daily spot and futures prices on exchanges is collected from the web site of NCDEX for the period from 1 Aug 2013 to 31 Dec 2013.

**DATA ANALYSIS & INTERPRETATION**

Prices of agricultural commodity Guargum are affected by international demand, exchange rate, changes in domestic production due to rainfall fluctuation, carry over stocks, demand and supply mismatch, black marketing and government policies.

Following table shows the data of spot and future close prices of Guargum for Nov.2013 and Jan.2014 future contract. Time period has been taken from 1 Aug 2013 to 31 Dec 2013 for five months for analyzing the trend between spot and future prices.

**TABLE NO. 1: SHOWS THE CLOSE PRICE (Rs. per quintal) AND SPOT PRICE (Rs. Per quintal)**

Date	Future Close Price(Rs.per quintal)(x)	Spot Price (Rs. Per Quintal)(y)	x*y	x <sup>2</sup>	y <sup>2</sup>
1-Aug-13	11540	14790	170676600	133171600	218744100
2-Aug-13	12010	15003.65	180193836.5	144240100	225109513.3
3-Aug-13	12500	15776	197200000	156250000	248882176
5-Aug-13	12000	15440.75	185289000	144000000	238416760.6
6-Aug-13	11520	14053.4	161895168	132710400	197498051.6
7-Aug-13	11400	13629.55	155376870	129960000	185764633.2
8-Aug-13	11800	14606.9	172361420	139240000	213361527.6
10-Aug-13	12040	15283	184007320	144961600	233570089
12-Aug-13	11560	13820.45	159764402	133633600	191004838.2
13-Aug-13	11910	14297	170277270	141848100	204404209
14-Aug-13	11550	14503.15	167511382.5	133402500	210341359.9
16-Aug-13	12020	15046.35	180857127	144480400	226392648.3
17-Aug-13	11690	14921.45	174431750.5	136656100	222649670.1
19-Aug-13	11920	14694.3	175156056	142086400	215922452.5
20-Aug-13	12190	14790	180290100	148596100	218744100
21-Aug-13	12680	15391.45	195163586	160782400	236896733.1
22-Aug-13	12510	15578.8	194890788	156500100	242699009.4
23-Aug-13	12220	15401.3	188203886	149328400	237200041.7
24-Aug-13	12580	15594.35	196176923	158256400	243183751.9
26-Aug-13	12970	15973.2	207172404	168220900	255143118.2
27-Aug-13	13490	16416.9	221463981	181980100	269514605.6
29-Aug-13	14600	17933.6	261830560	213160000	321614009
30-Aug-13	15040	17255	259515200	226201600	297735025
31-Aug-13	15650	19621.4	307074910	244922500	384999338
2-Sep-13	16280	20878.55	339902794	265038400	435913850.1
3-Sep-13	16940	21154.2	358352148	286963600	447500177.6
4-Sep-13	16910	20795.65	351654441.5	285948100	432459058.9
5-Sep-13	17590	23171	407577890	309408100	536895241
6-Sep-13	18300	21001.8	384332940	334890000	441075603.2
7-Sep-13	19030	20714.95	394205498.5	362140900	429109153.5
10-Sep-13	19790	24107.7	477091383	391644100	581181199.3
11-Sep-13	20580	25648.35	527843043	423536400	657837857.7
12-Sep-13	21400	22973.8	491639320	457960000	527795486.4
13-Sep-13	20550	22010.55	452316802.5	422302500	484464311.3
14-Sep-13	20600	22053.55	454303130	424360000	486359067.6
16-Sep-13	20950	22438.55	470087622.5	438902500	503488526.1
17-Sep-13	20120	21199	426523880	404814400	449397601
18-Sep-13	19720	21079.25	415682810	388878400	444334780.6
19-Sep-13	19690	19950.05	392816484.5	387696100	398004495
20-Sep-13	18910	19736.45	373216269.5	357588100	389527458.6
21-Sep-13	18160	17378.25	315589020	329785600	302003573.1
23-Sep-13	17440	17057.8	297488032	304153600	290968540.8
24-Sep-13	16750	16768.55	280873212.5	280562500	281184269.1
25-Sep-13	16120	16209.85	261302782	259854400	262759237
26-Sep-13	16390	17156.4	281193396	268632100	294342061
27-Sep-13	15780	16794.85	265022733	249008400	282066986.5
28-Sep-13	15990	17586	281200140	25680100	309267396
30-Sep-13	15360	16297.15	250324224	235929600	265597098.1
1-Oct-13	14750	15892.55	234415112.5	217562500	252573145.5
3-Oct-13	14280	14964	213685920	203918400	223921296
4-Oct-13	14850	15752.8	233929080	220522500	248150707.8

5-Oct-13	14310	15494.3	221723433	204776100	240073332.5
7-Oct-13	14070	14888.6	209482602	197964900	221670410
8-Oct-13	14630	15578.8	227917844	214036900	242699009.4
9-Oct-13	15210	16117.8	245151738	231344100	259783476.8
10-Oct-13	14610	15552.5	227222025	213452100	241880256.3
11-Oct-13	14760	15578.8	229943088	217857600	242699009.4
12-Oct-13	14910	15829.1	236011881	222308100	250560406.8
14-Oct-13	14410	15390.55	221777825.5	207648100	236869029.3
15-Oct-13	13840	14661.05	202908932	191545600	214946387.1
17-Oct-13	13630	14178.7	193255681	185776900	201035533.7
18-Oct-13	13920	14494.2	201759264	193766400	210081833.6
19-Oct-13	14160	14729.3	208566888	200505600	216952278.5
21-Oct-13	13950	14435.05	201368947.5	194602500	208370668.5
22-Oct-13	14040	14161.4	198826056	197121600	200545250
23-Oct-13	14230	14536.45	206853683.5	202492900	211308378.6
24-Oct-13	14130	14247.7	201320001	199656900	202996955.3
25-Oct-13	14690	14672.9	215544901	215796100	215293994.4
26-Oct-13	14910	15105.5	225223005	222308100	228176130.3
28-Oct-13	14320	14176.5	203007480	205062400	200973152.3
29-Oct-13	14440	14173.75	204668950	208513600	200895189.1
30-Oct-13	14690	14444.9	212195581	215796100	208655136
31-Oct-13	14720	14494.2	213354624	216678400	210081833.6
1-Nov-13	14720	14367.45	211488864	216678400	206423619.5
2-Nov-13	14950	14555.85	217609957.5	223502500	211872769.2
5-Nov-13	14860	14494.2	215383812	220819600	210081833.6
6-Nov-13	14780	14413	213024140	218448400	207734569
7-Nov-13	14720	14453.1	212749632	216678400	208892099.6
8-Nov-13	14430	14112.95	203649868.5	208224900	199175357.7
9-Nov-13	13990	13790.85	192933991.5	195720100	190187543.7
11-Nov-13	13450	13172.95	177176177.5	180902500	173526611.7
12-Nov-13	13820	13343.85	184412007	190992400	178058332.8
13-Nov-13	14210	13469.85	191406568.5	201924100	181436859
14-Nov-13	14770	14216.35	209975489.5	218152900	202104607.3
16-Nov-13	14550	14076.8	204817440	211702500	198156298.2
18-Nov-13	14500	13896.45	201498525	210250000	193111322.6
19-Nov-13	15080	14415.3	217382724	227406400	207800874.1
20-Nov-13	14940	14494.2	216543348	223203600	210081833.6
21-Nov-13	14520	14172.1	205778892	210830400	200848418.4
22-Nov-13	14540	14075.15	204652681	211411600	198109847.5
23-Nov-13	14730	14204.2	209227866	216972900	201759297.6
25-Nov-13	14290	13944.85	199271906.5	204204100	194458841.5
26-Nov-13	14330	13899.7	199182701	205348900	193201660.1
27-Nov-13	13980	13594.5	190051110	195440400	184810430.3
28-Nov-13	13720	13409.6	183979712	188238400	179817372.2
29-Nov-13	13680	13217.35	180813348	187142400	174698341
30-Nov-13	13540	13212.4	178895896	183331600	174567513.8
2-Dec-13	13280	13015.2	172841856	176358400	169395431
3-Dec-13	13470	13113.8	176642886	181440900	171971750.4
4-Dec-13	13800	13536.95	186809910	190440000	183249015.3
5-Dec-13	13570	13404.65	181901100.5	184144900	179684641.6
6-Dec-13	13670	13373.45	182815061.5	186868900	178849164.9
7-Dec-13	13630	13403.05	182683571.5	185776900	179641749.3
9-Dec-13	13550	13318.6	180467030	183602500	177385106
10-Dec-13	13470	13212.4	177971028	181440900	174567513.8
11-Dec-13	13140	12752.25	167564565	172659600	162619880.1
12-Dec-13	13300	12836.5	170725450	176890000	164775732.3
13-Dec-13	13420	12937.15	173616553	180096400	167369850.1
14-Dec-13	13210	12814.5	169279545	174504100	164211410.3
16-Dec-13	12690	11670	148092300	161036100	136188900
17-Dec-13	12190	10895.3	132813707	148596100	118707562.1
18-Dec-13	11740	10966.5	128746710	137827600	120264122.3
19-Dec-13	12200	11339	138335800	148840000	128572921
20-Dec-13	12080	11691.15	141229092	145926400	136682988.3
21-Dec-13	11930	11547.15	137757499.5	142324900	133336673.1
23-Dec-13	11840	11411.05	135106832	140185600	130212062.1
24-Dec-13	12080	11753.95	141987716	145926400	138155340.6
26-Dec-13	12330	11922.4	147003192	152028900	142143621.8
27-Dec-13	11840	11665.15	138115376	140185600	136075724.5
28-Dec-13	11690	11634.8	136010812	136656100	135368571
30-Dec-13	12150	11763.35	142924702.5	147622500	138376403.2
31-Dec-13	11950	11634.8	139035860	142802500	135368571
n=122	Σx=1762520	Σy=1870151.7	Σxy=27739819893	Σx <sup>2</sup> =26122991200	Σy <sup>2</sup> =29748608552

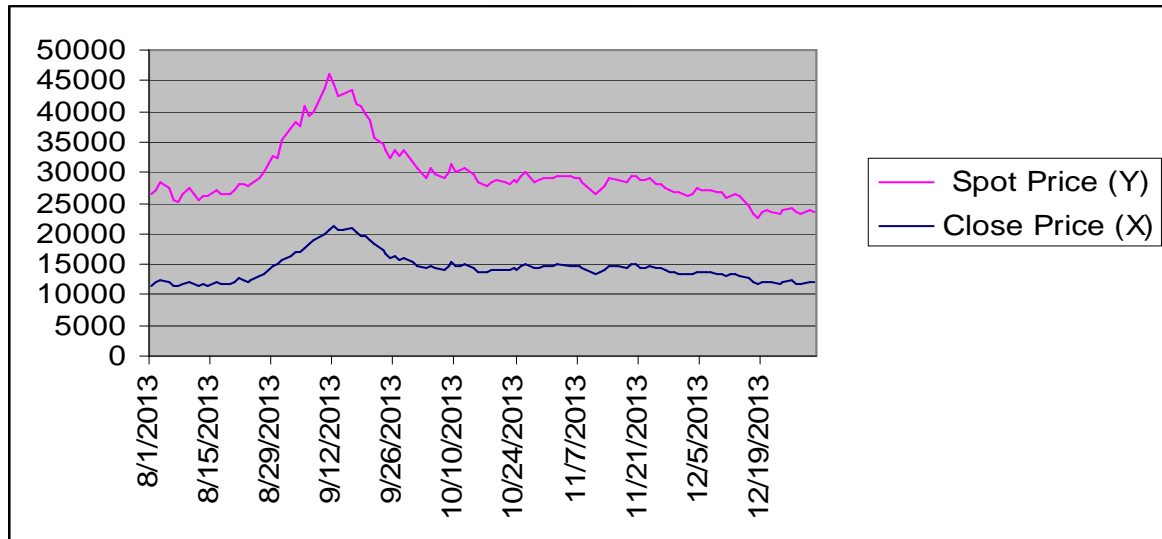
$$r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}}$$

$$= \frac{(122 * 27739819893) - (1762520 * 1870151.7)}{\sqrt{(122 * 26122991200 - (1762520)^2)(122 * 29748608552 - (1870151.7)^2)}}$$

$$= 0.8547$$

Interpretation: The results of correlation coefficient shows that there is a high degree of positive correlation between future and spot prices of Guargum agricultural commodity.

GRAPH NO.1 (On OX axis, Time period is taken and on OY axis, future close and spot prices (in Rs. per quintal) are taken)



**CONCLUSION**

On the basis of above study, conclusion has been drawn that future prices of commodities are dependent upon current demand and supply of Guargum in various mandis

On the basis of above graph, it is clear that prices are volatile. As it is observed that during the first week of sep., Guargum prices shoot up. "The recent price rise of the commodity despite a stable demand-and-supply situation once again highlights the fact of manipulation in this market.

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**CSR AND EMPLOYEE'S ORGANIZATIONAL COMMITMENT: A STUDY OF INDIAN FINANCIAL INDUSTRY**

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**ABSTRACT**

*Stakeholders of a company these days pay a special attention on the corporate social responsibility (CSR) of the company. Shareholders often panelize the company by affecting the share prices or not preferring the stocks of those companies which don't do well in CSR aspect. Similarly, employees have known to panelize such companies too by preferring to choose to work in those companies which are rated high on CSR. Also, literature has found a positive relation between employees' motivation, their perception for organization's attractiveness, their dedication to work, their organizational commitment, and their perception about company's CSR. The aim of this study is to verify the relation between employees' perception about CSR and their organizational commitment in Indian financial industry.*

**JEL CODE**

M14

**KEYWORDS**

CSR, organizational commitment, Indian financial industry.

**INTRODUCTION**

Corporate social responsibility (CSR, also called corporate conscience, corporate citizenship, social performance, or sustainable responsible business/ Responsible Business) (D Wood, 1991) is a form of corporate self-regulation integrated into a business model. CSR policy functions as a built-in, self-regulating mechanism whereby a business monitors and ensures its active compliance with the spirit of the law, ethical standards, and international norms (Aguilera et al., 2007; Carroll, 2008). In some models, a firm's implementation of CSR goes beyond compliance and engages in "actions that appear to further some social good, beyond the interests of the firm and that which is required by law." (McWilliams, Abigail; Siegel, Donald (2001), McWilliams, Abigail; Siegel, Donald; Wright, Patrick M., 2006). CSR is a process with the aim to embrace responsibility for the company's actions and encourage a positive impact through its activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere who may also be considered as stakeholders. According to Barnett (2007: 798-801) CSR is a form of corporate investment characterized by a dual orientation towards the improvement of social welfare and of stakeholder relations.

There are several aspects which drive CSR such as pressures from various stakeholders (Brammer & Millington, 2003). Socially Responsible Investment is a way investors of the organization promote CSR in the organization they chose to invest (Vogel, 2005).

A French poll on CSR indicated that employees were seen as the most important stakeholder group toward whom corporations have to exercise their social responsibility (Humière & Chauveau, 2001: 183-193).

In organizational behavior and industrial and organizational psychology, organizational commitment is the individual's psychological attachment to the organization (Meyer, JP and Allen, NJ, 2007). The basis behind many of these studies was to find ways to improve how workers feel about their jobs so that these workers would become more committed to their organizations. Organizational commitment predicts work variables such as turnover, organizational citizenship behavior, and job performance. Organizational commitment can be contrasted with other work-related attitudes, such as job satisfaction, defined as an employee's feelings about their job, and organizational identification, defined as the degree to which an employee experiences a 'sense of oneness' with their organization.

There have been a few studies which tried to find out the relation between CSR and employees' organizational commitment (Brammer et al., 2007; Maignan & Ferrell, 2001a; Peterson, 2004). Swaen and Maignan (2003) and Swanson and Niehoff (2001) found a positive link between CSR and Organizational Citizenship Behavior (OCB).

**LITERATURE REVIEW****RELATION BETWEEN CSR AND EMPLOYEES' ORGANIZATIONAL COMMITMENT**

There have been certain renowned studies which tried to suggest a relation between CSR and employees' organizational commitment but no such research has been don't in India's financial industry's context. The details of these studies are given below:

Maignan, Ferrell, Hult (1999) explored the nature of corporate citizenship and its relevance for marketing practitioners and academic researchers. Results showed that market-oriented cultures as well as humanistic cultures are positively related to proactive corporate citizenship, which in turn is associated with improved levels of employee commitment, customer loyalty, and business performance.

Result of an empirical study conducted among French businesses also confirmed that that a market oriented culture is conducive of corporate citizenship, which in turn is associated with greater employee commitment and business performance (Maignan & Ferrell, 2001).

Peterson (2004) showed that relationship between corporate citizenship and organizational commitment is stronger among employees who believe in the importance of business's social responsibility.

Aguilera, Rupp, Ganapathi & Williams (2006) showed that employees' perceptions of CSR impact their subsequent emotions, attitudes, and behaviors, mediated by instrumental, relational, and deontic motives/needs, as well as moderated by organizations' social accounts.

Brammer, Millington & Rayton (2007) examined the impact of three aspects of socially responsible behaviour on organisational commitment: employee perceptions of corporate social responsibility in the community, procedural justice in the organisation and the provision of employee training. The results suggested that external CSR is positively related to organisational commitment and that the contribution of CSR to organisational commitment is at least as great as job satisfaction.

**IMPORTANCE OF THE STUDY**

Relation between CSR and its effect on employees' organizational commitment has never been studied in Indian context for the financial industry. It is important to verify the results in India's context, of the studies so far which have mostly shown a positive relation between CSR and its effect on employees' organizational commitment, because the perception of the employees about CSR and their organizational commitment perception may differ from one country to another. Also, this relation may vary from one industry from another. Studies so far have considered non financial industry, which contribute to CSR on a different magnitude, and the aims, objectives and work environment are different for its employees compared to other industry.



**OBJECTIVES**

Our objective of the study is to find the relation between companies' CSR and its effect on employees' organizational commitment for Indian financial industry context.

**HYPOTHESIS**

Literature present and discussed in this paper suggests that perception of an employee about the CSR of his/her company is positively related to his/her organizational commitment. Though such relation may differ in magnitude in Indian financial industry context, we believe the relation would still be positive. Hence, we propose the following hypothesis:

*H0:* The relation between employees' perception about CSR and their organizational commitment will be positive in Indian financial industry context.

**METHODOLOGY**

Perceptions of CSR was measured as the interaction between CSR beliefs/values and CSR awareness. Beliefs about CSR (based on Maignan & Ferrell, 2001a) and awareness of CSR initiatives was measured using 4 item scale developed by Aguilera, Rupp, Ganapathi & Williams (2006). Employees' organizational commitment was measured using the 3 items scale developed by Balfour and Wechsler (1996). Regression analysis and ANOVA were used to judge the relation between employees' perception about CSR and their organizational commitment in Indian financial industry context.

**PROCEDURE**

We collected the data using questionnaires from 110 individuals working in Delhi based Banks (both public and private) over a span of two months. All the analysis was conducted using IBM SPSS Statistics V20 Software. Employees' organizational commitment was taken as independent variables while employees' perception about CSR was taken as the dependent variable. Both variables were tested for abnormality in skewness and kurtosis but no such abnormalities were found. Next, we converted the variables into z-scores to find any outliers with an absolute value greater than 3.29, but no outliers were found. After these procedures, we conducted Linear Regression Analysis for which the results are mentioned below.

**RESULTS & DISCUSSION**

MODEL SUMMARY				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.169 <sup>a</sup>	.028	.019	.37726

a. Predictors: (Constant), Employees' perception about CSR

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.451	1	.451	3.167	.048 <sup>b</sup>
	Residual	15.371	108	.142		
	Total	15.822	109			

a. Dependent Variable: Employees' Organizational Commitment  
b. Predictors: (Constant), Employees' perception about CSR

COEFFICIENTS <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.824	.363		7.788	.000
	Employees perception about CSR	.187	.105	.169	1.780	.048

a. Dependent Variable: Employees' Organizational Commitment

Regression analysis shows that employees' perception about CSR predicts around 3% variations in their organizational commitment. This means that organizational commitment in Indian financial industry context depends on several other factors other than CSR perception.

The ANOVA table reports a significant F statistic, indicating that using the model is better than guessing the mean.

Regression Equation obtained from the analysis is:

$$\text{Employees' Organizational Commitment} = 2.824 + 0.187 (\text{Employees' Perception about CSR})$$

The independent variable, Employees' perception about CSR is very significant predictor of Employees' Organizational Commitment (as 0.048 < 0.05).

Regression equation suggests that '1 unit' change in Employees' perception about CSR would bring about '0.187 units' change in Employees' Organizational Commitment, which has a magnitude effect of almost 19%.

**FINDINGS**

Our results verify our hypothesis that the relation between employees' perception about CSR and their organizational commitment would be positive in Indian financial industry context. Employees' perception about CSR was found to significantly affect their organizational commitment in Indian financial industry context. Our results are also in line with the findings of the literature so far.

**CONCLUSION**

In this study we used data from 110 employees of Delhi based Indian banks, about their Organizational Commitment and their perception about CSR. Our aim was to test whether the relation between both variable would be positive in Indian context as has been suggested in context of other countries, and the magnitude of such effect. Our results were in line with the literature and a significantly positive relation between both variables was found.

**LIMITATIONS**

First limitation in this research was that only financial sector was considered in the analysis. It would be interesting to cross check such results for different industries and the magnitude of the relation in different industries. Secondly, as suggested by the results, only about 3% of Employees' Organizational Commitment is explained by Employees' perception about CSR. That means about 97% of Employees' Organizational Commitment depends on other factors.

**SCOPE FOR FUTURE RESEARCH**

As pointed out in the limitation, future research needs to verify the relation between employees' perception about CSR and their organizational commitment for industries other than financial in Indian context. The result may have a different magnitude for different industries, the reasons for which needs to be answered too. Also, other factors which explain Employees' Organizational Commitment, other than the Employees' perception about CSR needs to be explored too.

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**EFFECTIVENESS OF THE FINANCIAL INCLUSION INITIATIVES IN INDIA**

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**ABSTRACT**

*India is one of the fastest growing economies of the world, to maintain this pace and for standing out on a global platform; India has to look upon the inclusive growth. The Indian economy, though achieved a high growth momentum till date, but the extent of financial exclusion is still quiet huge and needs to be rightly encountered. Inclusive growth if targeted systematically may lead to financial stability, asset building and economic mobility and empowerment of the low income group people. In the present paper an effort has been made to understand the effectiveness of the financial inclusion initiatives in India and issues involved in extending banking services to weaker sections of the society. For analyzing such facts, data has been gathered through secondary sources including report of RBI, World Bank database (Global findex), books on financial inclusion and other articles written by eminent authors.*

**KEYWORDS**

Financial inclusion, GCCs, BCs, KYC, financial exclusion, Global findex.

**INTRODUCTION**

India is one of the fastest growing economies of the world, to maintain this pace and for standing out on a global platform; India has to look upon the inclusive growth. There is a long way to go for the financial inclusion to reach to the core poor according to K.C. Chakrabarty RBI Deputy Governor "Even today the fact remains that nearly half of the Indian population doesn't have access to formal financial services and are largely dependent on money lenders". Inclusive growth comprises both the pace and the pattern of the economic growth. As per the Planning Commission of India "The term "inclusive" should be seen as a process of including the excluded as agents whose participation is essential in the very design of the development process". And in simple sense inclusive growth means a strategy of economic development which is not only aims at equitable distribution of growth benefits but also at creating economic opportunities along with equal access to them for all. The Indian economy, though achieved a high growth momentum till date, but still not able bring down the poverty to tolerable level. Further, a vast majority of the population remained outside the ambit of basic health and education facilities during this high growth phase. In recent decades, economic and social inequalities have increased alongside high growth rates which have increased regional inequalities. As a result, Inclusive growth has become a national policy objective of the Union Government.

Financial inclusion means the delivery of financial services at affordable costs to sections of disadvantaged and low income segment of society, for whom services are not available or affordable. An estimated 2.5 billion working age adults globally have no access to the types of formal financial services delivered by regulated financial institutions.

**INITIATION OF FINANCIAL INCLUSION CONCEPT**

**International Initiatives** for financial inclusion have come from the financial regulators, the governments and the banking industry. While the banking sector has taken several steps to promote financial inclusion, legislative measures have also been initiated in some countries. Like in the United States, the Community Reinvestment Act (1977) requires banks to offer credit throughout their area of operation and prohibits them from targeting only the rich neighborhood. In South Africa, a low cost bank account called 'Mzansi' was launched for financially excluded people in 2004 by the South African Banking Association.

**National Initiative**:-The history of financial inclusion in India is actually much older than the formal adoption of the objective. The nationalization of banks, Lead Bank Scheme, incorporation of Regional Rural Banks, Service Area Approach and formation of Self-Help Groups - all these were initiatives aimed at taking banking services to the masses. In India, financial inclusion first featured in 2005, when it was introduced by K C Chakraborty, the chairman of Indian Bank. Mangalam Village became the first village in India where all households were provided banking facilities. Norms were relaxed for people intending to open accounts with annual deposits of less than Rs. 50,000. General credit cards (GCCs) were issued to the poor and the disadvantaged with a view to help them access easy credit.

**WHY FINANCIAL INCLUSION?**

Financial inclusion is no longer a fringe subject. It is now recognized as an important part of the mainstream thinking on economic development based on country leadership. The Significance of financial inclusion can be explained by following ways:-

- It will help in removal of income inequalities.
- It mobilizes savings that promote economic growth through productive investment.
- It promotes financial literacy of the rural population and hence guides them to avoid the expensive and unreliable financial services.
- This helps the weaker sections to channelize their incomes into buying productive resources or assets.
- In the situations of economic crisis, the rural economy can be a support system to stabilize the financial system.
- It helps in ensuring a sustainable development.

**OBJECTIVES OF STUDY**

- To find out the causes of financial exclusion in India.
- To highlight the strategies and approaches for financial inclusion in India
- To analyze the current status of financial inclusion in India.
- To highlight the future plan of banks for financial inclusion.

**RESEARCH METHODOLOGY**

Research methodology is partly descriptive and partly exploratory. For this study data and information has been gathered through secondary sources including Magazines, Newspapers, report of RBI, World Bank database (Global findex), books on financial inclusion, Research Journals, and articles written by eminent authors.

**CAUSES OF FINANCIAL EXCLUSION IN INDIA****WHO ARE THE EXCLUDED?**

The financially excluded sections largely comprise marginal farmers, landless laborers, oral lessees, self employed and unorganized sector enterprises, urban slum dwellers, migrants, ethnic minorities and socially excluded groups, senior citizens and women. While there are pockets of large excluded population in all parts of the country, the North East, Eastern and Central regions contain most of the financially excluded population.

**CAUSES**

Inclusive finance is a long run phenomenon which can not be achieved overnight, especially with regard to developing country like India where access to formal banking system is affected by several barriers like in remote, hilly and sparsely populated areas with poor infrastructure; physical access itself acts as a deterrent. From the demand side, lack of awareness, low incomes/assets, social exclusion, illiteracy act as barriers. From the supply side, distance from branch, branch timings, cumbersome documentation and procedures, unsuitable products, language, staff attitudes are common reasons for exclusion. All these result in higher transaction cost apart from procedural hassles. On the other hand, the ease of availability of informal credit sources makes these popular even if costlier. The requirements of independent documentary proof of identity and address can be a very important barrier in having a bank account especially for migrants and slum dwellers.

A World Bank report stresses the distinction between 'access to' and 'use of' financial services as it has implications for policy makers. 'Access' essentially refers to the supply of services, whereas use is determined by demand as well as supply. Among the non-users of formal financial services a clear distinction needs to be made between voluntary and involuntary exclusion. The problem of financial inclusion addresses the 'involuntarily excluded' as they are the ones who, despite demanding financial services, do not have access to them.

**STRATEGIES AND APPROACH FOR FINANCIAL INCLUSION IN INDIA**

Several measures have been taken by both the Reserve Bank of India and the Government to bring the financially excluded people to the fold of the formal banking services. At the regional level, a forum called the State Level Bankers' Committee (SLBC) has been in operation since nationalization. SLBC is a group of bankers and government officials and is convened by a bank having major presence in the State called the SLBC convenor bank. It meets quarterly and reviews the banking developments in the State. At the district level, the district level committee functions; it is headed by the District Commissioner and is convened by a designated lead bank for the district. In early 2006, one district in each State was identified by the SLBC for 100 per cent financial inclusion. So far, SLBCs have reported having achieved 100 per cent financial inclusion in the Union Territory of Puducherry and in some districts in Haryana, Himachal Pradesh, Karnataka, Kerala and Punjab.

Some other important financial inclusion approaches and initiatives of RBI are given below:

1. It is mandated to banks to open at least 25% of new branches in unbanked rural centers.
2. Domestic scheduled commercial banks were permitted by RBI to freely open branches in tier III to tier VI centers with a population of less than 50,000 under general permission because being local institutions they are ideally suited for achieving financial inclusion.
3. RBI advised to make effective use of information and communications technology (ICT), to provide doorstep banking services.
4. The recent introduction of direct benefit transfer, leveraging the Aadhaar platform, will help facilitate delivery of social welfare benefits by direct credit to the bank accounts of beneficiaries. The government, in future, has plans to route all social security payments through the banking network, using the Aadhaar based platform as a unique identifier of beneficiaries. In order to ensure smooth roll out of the Government's Direct Benefit Transfer (DBT) initiative, banks have been advised to:
  - Open accounts of all eligible individuals in camp mode with the support of local Government authorities.
  - Seed the existing and new accounts with Aadhaar numbers.
  - Put in place an effective mechanism to monitor and review the progress in implementation of Direct Benefit Transfer.

**FINANCIAL INCLUSION IN INDIA: ACHIEVEMENTS SO FAR****FINANCIAL INCLUSION PLAN 2010-13**

The Reserve Bank had advised all public and private sector banks to prepare and submit their board approved financial inclusion plans (FIPs) to be rolled out in 3 years from April 2010 to March 2013. These FIPs contained self-set targets in respect of opening of rural brick and mortar branches, deployment of business correspondents (BCs), coverage of unbanked villages through various modes, opening of no-frills accounts, Kisan Credit Cards (KCCs) and General Credit Cards (GCCs) to be issued etc.

**TABLE 1: PROGRESS OF FINANCIAL INCLUSION PLAN IN INDIA**

Particulars	Year ended Mar 10	Year ended Mar 11	Year ended Mar 12	Year ended Mar 13	Progress April 2010 – March 2013
1. Banking outlets - Rural Branches	33378	34811	37471	40845	7467
2. Banking outlets -BCs	34174	80802	141136	221341	187167
3. Banking Outlets through other Modes	142	595	3146	8424	8282
4. Total Banking Outlets ( 1+2+3)	67694	116208	181753	270610	202916
5. Urban location covered through BCs	447	3771	5891	27124	26677
6. BSBD Accounts (No. in lakh)	734.53	1047.59	1385.04	1833.30	1098.77
7. OD facility availed in BSBD Accounts (N. in lakh)	1.83	6.06	27.05	39.42	37.59
8. KCCs-Total (No. In Lakh)	243.07	271.12	302.35	337.87	82.43
9. GCC (No. in lakh)	13.87	16.99	21.08	36.29	22.28
10. BC-ICT Accounts (No. in lakh)	132.65	316.30	573.01	810.38	677.73
11. ICT Accounts- BC- Total transactions (No. in lakh)	265.15	841.64	1410.93	2546.51	4799.08

Source: K. C. Chakrabarty, "Revving up the Growth Engine through Financial Inclusion" RBI Monthly Bulletin July 2013.

A snapshot of the progress made by banks under the FIPs (April 10 – March 13) for key parameters, during the three year period is as under:

Nearly 2,70,000 banking outlets have been set up in villages as on March 13 as against 67,694 banking outlets in villages in March 2010. About 7400 rural branches opened during this period. Nearly 109 million Basic Savings Bank Deposit Accounts have been added, taking the total no. of Basic Savings Bank Deposit Accounts to 182 million. Share of ICT based accounts have increased substantially – Percentage of ICT accounts to total Basic Savings Bank Deposit Accounts has increased from 25% in March 10 to 45% in March 13. With the addition of nearly 9.48 million farm sector households during this period, 33.8 million households have been provided with small entrepreneurial credit as at the end of March 2013. With the addition of nearly 2.25 million non farm sector households during this period, 3.6 million households have been provided with small entrepreneurial credit as at the end of March 2013. About 4904 lakh transactions have been carried out in ICT based accounts through BCs during the three year period.

It is important to analyze this progress against the some disconcerting trends that were noticed in the run up to the structured Financial Inclusion initiatives that the banks launched since 2010 onwards. First, the number of banked centres in the country between 1991 and 2007 had actually come down (from 35236 to 34471). Second, the number of rural branches during the same period had also declined significantly (from 35206 to 30409). Despite this backdrop in past years, the progress made during 2010-13 is certainly remarkable.

## POSITION OF FINANCIAL INCLUSION

TABLE 2

Indicators of financial inclusion	India (%)	China (%)	Germany (%)	World (%)
Account at a formal financial institution (% age 15+)	35	64	98	50
Use of formal Accounts (% age 15+)	8	18	62	21
Savings (% age 15+)	12	32	56	36
Loan from a financial institution in the past year(% age 15+)	8	7	13	9
ATM is the main mode of withdrawal (% age 15+)	19	33	79	43
Use of Debit card (% age 15+)	8	41	88	NA
Use of credit card (% age 15+)	2	8	36	15
Insurance (% age 15+)	7	47	NA	17

Source:- From World development Indicators : The little Data book on Financial Inclusion

In the above table Germany has been taken to represent developed nations, China has been taken to represent another developing nations to find out a comparative picture with India and world statistics have been taken to show the standing position of India in world with regard to financial inclusion. From the above table it can be observed that there is great difference between level of financial inclusion in India (developing nation) and Germany (developed nation), the percentage of population having an account at a formal financial institution (% age 15+) in India is not even half of what it is in Germany, in India the rate is 35% whereas in Germany it is 98% and when it is talk about china an another developing nation the percentage of population having an account at a formal financial institution (% age 15+) in China is 64%(67.6 per cent for men and 60 per cent for women). as against 35 % (43.7 per cent for men and 26.5 per cent for women) in India, and when it talk about world overall rate of financial inclusion, 50 per cent of adult population worldwide report owning an account with a formal financial institution which is much higher than in comparison to India. People having debit cards comprise only 8 per cent and those having credit cards only a marginal 2 per cent of the population in India where as in China the percentage is 41% and 8 % respectively. Financially excluded populace is predominant in developing countries, where only 41 per cent adults have a formal account, with only 37 per cent of women having formal account against 46 per cent of men; the gender gap widens further because of varying degrees of income inequalities observed among the developing countries. The data clearly shows that India needs to adapt to more aggressive policy for financial inclusion in order to attend holistic growth and stand comparable with the inclusion standards of developing and developed worlds. Thus it is quiet clear that the extent of financial exclusion is still quiet huge in India and needs to be rightly encountered, moreover one also needs to understand the state wise distribution and availability of financial services and providers in the country.

## FUTURE PLAN OF BANKS FOR FINANCIAL INCLUSION

### FINANCIAL INCLUSION PLAN 2013-16

Learning from the experience gained from the outcomes of our FI initiatives over the years, the Reserve Bank has taken certain additional steps to provide greater impetus to the process of financial inclusion. In order to continue with the process of ensuring access to banking services to the excluded, banks have now been advised to draw up a fresh 3 year Financial Inclusion Plan for the period 2013-16. RBI encouraged banks to adopt a structured and planned approach to financial inclusion with commitment at the highest levels, through preparation of Board approved Financial Inclusion Plans (FIPs).

To turn the dream of universal and meaningful financial inclusion into reality, we would need to focus on the following issues:

- Banks advised to prepare Board approved FIPs for the period 2013-2016.
- In order to ensure closer monitoring of FI performance of bank branches, banks have been advised to disaggregate their FIPs up to controlling office and branch level.
- Structured, comprehensive monitoring mechanism put in place by the Reserve Bank for evaluating banks' performance against their FIP plans.
- Annual review meetings are being held with CMDs of banks to ensure top management support and commitment to the FI process.
- Ensuring coverage of all unbanked villages in next 3 years
- Emphasis on increasing rural branches
- Opening of bank accounts for all eligible individuals
- Delivery of credit products through BCs
- Hassle free Emergency credit (In built OD)
- Banks to review HR policy in view of FI requirements
- Examining appointing of a separate cadre of staff for cost optimization
- Implementing National Strategy for Financial Education
- Seed the existing and new accounts with Aadhaar numbers.

## CONCLUSION

Indian Government has been taken several steps to financial inclusion till date, still the extent of financial inclusion is staggering and how to structure the financial system to include the excluded in an appropriate and cost-effective way is unclear. It is thought that nearly three billion people worldwide do not have access to a bank account or any formal banking services and many more of the world's poor who do have a bank account either rarely or never use it. The majority of the unbanked population is located in low-income countries, so while this is predominantly a developing world problem. Although the unbanked population is a large and relatively untapped market, it is not easy for banks to make smooth inroads into this space. Financial inclusion of the unbanked masses is a critical step that requires political will, bureaucratic support and dogged persuasion by RBI. So India (a developing nation) needs to adapt to more aggressive policy for financial inclusion in order to attend holistic growth and prosperity.

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**FOREIGN DIRECT INVESTMENT IN INDIA**

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**ABSTRACT**

Foreign direct investment occurs when a firm invests directly in facilities to produce and/or market a product in a foreign country. This paper is an attempt to understand the different facets of FDI. The volume of FDI has grown rapidly than the volume of world trade in recent years. Even though developed nations still account for the largest share of FDI flows, FDI into developing nations has increased. The present study aims to look into the key aspects, trends and government policy towards FDI in India.

**KEYWORDS**

Foreign direct investment, industry, policy, sector, multinational company.

**INTRODUCTION**

Foreign Direct Investment is in the form of investments directly made in industry or other spheres of economic activity of a country by foreign industrial houses or Multinational Companies (MNC's) with objective of earning profits. FDI by MNC's is a direct investment in country's economy which has major impact on country's production, income, employment and development.

**OBJECTIVE OF THE STUDY**

The objective of the study is to analyse the current FDI scenario in India and its impact.

**METHODOLOGY**

The paper is based on statistical data, a thorough analytical and logical understanding of books, reports, articles and online material.

**WHY COUNTRY SEEK FDI?**

- Domestic capital is inadequate for purpose of economic growth;
- Foreign capital is usually essential, at least as a temporary measure, during the period when the capital market is in the process of development;
- Foreign capital usually brings it with other scarce productive factors like technical know how, business expertise and knowledge

**MAJOR BENEFITS OF FDI**

- Fill up saving and investment gap.
- Minimize balance of payment problems.
- Fill technology and management gaps
- Ensure efficient use of capital resources'
- Free from problem of repayment
- Employment generation and increase in production

**DISADVANTAGES OF FDI**

- Strain on Balance of payment in the long run.
- Large giants of the world try to monopolies and take over the highly profitable sectors;
- Domestic companies fear that they may lose their ownership to overseas company
- Such foreign companies invest more in machinery and intellectual property than in wages of the local people
- Small enterprises fear that they may not be able to compete with world class large companies and may ultimately be edged out of business;
- Government has less control over the functioning of such companies as they usually work as wholly owned subsidiary of an overseas company;

**INDIA'S POLICY TOWARDS FDI**







PHASE	PERIOD	POLICY
First	1950-1968	Phase of cautious welcome of FDI
Second	1968-1980	Period of restrictions and tight regulations of FDI
Third	1980-1990	Phase of gradual deregulation
Fourth	1991 onwards	Policy of reforms and Liberalization

Industrial Policy Statement of July 1991" foreign investment and foreign collaboration will be welcomed to obtain higher technology to increase exports and expand the production base."

The Government of India, in formulating its consolidated FDI policy, has placed significantly emphasis on accelerating capital investment through foreign direct investment in specified sectors in India to supplement domestic capital, technology and skills and achieve higher economic growth of the country. The present circular No. 1 of 2012 dated on 10.04.2012 issued by the Ministry of Commerce & Industry, Department of Industrial policy and promotion (DIPP), Government of India contains the updated Consolidated FDI Policy in keeping with regulatory changes. The Reserve Bank of India (RBI) issues procedural circulars and amendments to the Foreign Exchange Management Act (FEMA), 1999 to implement the FDI policy.

TABLE 1: SECTOR SPECIFIC LIMITS OF FDI

SECTOR	FDI CAP/EQUITY	ENTRY ROUTE	CONDITIONS
1.Agriculture & Animal Husbandry			
Floriculture, Horticulture, Development of seeds, animal Husbandry , Pisciculture , aquaculture, cultivation of vegetables & mushrooms, services related to agro and allied sectors	100%	Automatic	Sectorial laws/conditions
2.Tea sector including tea plantations( FDI is not allowed in any other agricultural sector/activity)	100%	FIPB	Sectorial laws
3.Mining			
Mining covering exploration and mining of diamonds & precious stones, gold, silver and mineral	100%	Automatic	Sectorial laws
Coal and lignite	100%	Automatic	Sectorial laws
Mining and mineral separation of titanium bearing minerals	100%	FIPB	Sectorial laws
4.Petroleum & natural gas Refining(PSU)	100% 49%	Automatic	Sectorial Laws. No dilution of equity by PSU
5. Manufacturing			
(a) MSE Units	100%	Automatic	
(b) Non – MSE units where cap/equity>24% have to give min. 50% export obligation within 3 years of commencing commercial production.	100%	IDRA License	Sectorial laws Sectorial laws
6. Defence On case to case basis, which ensure access to modern and state of art technology in the country	26%	FIPB	Sectorial laws/IDRA license. Above 26% to Cabinet Committee on Security (CCS)
7. Broadcasting			
(a) FM Radio	26%	FIPB	Sectorial laws/conditions & Guidelines by Ministry of Information & Broadcasting
(b) Cable network	49%(FDI+FII)		
(c)Unlinking/non current news	100%		
(d) News/Current affairs TV Channel	26%		
8. Print Media			
(a) Publishing of newspapers and periodicals dealing with news and current affairs	26%	FIPB	Sectorial laws/conditions & Guidelines by Ministry of Information & Broadcasting
(b) Publishing of scientific magazines/specialty journals/periodicals	100%		
9. Civil Aviation			
(a) Greenfield airport projects	100%	Automatic	Sectorial laws/conditions
( b) Scheduled Air transport Service/ domestic scheduled Passenger Airline	49%(100% for NRI)	Automatic	DGCA permission
( c ) Non scheduled Air transport Services	74%( 100% for NRI)	Automatic up to 49% & FIPB beyond 49%	DGCA permission
(d)Existing airports	100%	74% through automatic route & above 74% by FIPB	Sectorial laws/conditions
(e) Helicopter services/seaplane services	100%	Automatic	Sectorial laws
(f) Ground Handling Services	74%(100% for NRI)	Automatic up to 49% & FIPB beyond 49%	Sectorial laws
(g) Maintenance & Repair organizations, flight training technical training institutions	100%	Automatic	Sectorial laws
10. Construction/development of townships/Housing & built up infrastructure	100%	Automatic	Sectorial laws/conditions
11.Industrial park	100%	Automatic	Sectorial laws/conditions
12. Establishment and operation of Satellites	74%	FIPB	Department of space/IRO approval
Service Sector			
13. Courier services	100%	Automatic	Sectorial law
14. Private Security agencies	49%	FIPB	Sectorial laws
15. Telecom Services	100%	Automatic upto to 49% above 49% through FIPB	Observance of licensing and security conditions by licensee/investors as notified by the dept. of telecommunication
16. Wholesale trading /cash & carry wholesale trading	100%	Automatic	Compliances of act/Rules/Orders of State Gov./local authority
17. E-commerce activities	100%	Automatic	B2B only Compliances of act/Rules/Orders of State Gov./local authority
18. Single brand product retail trading	100%	49%-Automatic Above 49%-SIA/FIPB	Compliances of act/Rules/Orders of State Gov./local authority
19. Financial sector services			
(a) Asset reconstruction Companies	100%	Up to 49% automatic & beyond government	RBI Registration
(b)Banking (private) sector	74%(FDI+FII) FII not exceed 49%	Automatic	Minimum 26% of the paid up capital be held by Indian residents
(c )Commodity/Exchange	FDI+ FII=49% FDI:26% & FII: 23 %	Automatic	Guidelines of Department of Consumer Affair/ forward Market Commission
(d) Credit Information Companies	FDI+FII= 74%	Automatic	No single entity should directly or indirectly hold 10% equity
(e) Infrastructure Companies	FDI=FII=49% FDI:26% & FII:23	Automatic	SEBI regulation compliance
(f) Power Companies	FDI=FII=49% FDI:26% & FII:23	Automatic	With regard to Central electricity Regulatory Commission(Power Market) Regulations, 2010
(g) Insurance	26%	Automatic	IRDA Clearances
(h) Non Banking Financial Companies	100%	Automatic 49% FIPB : Beyond 49%	Minimum capitalization norms
20. Drugs & Pharmaceuticals	100%	Automatic	Sectorial Laws

KEY SECTORS	
 <p><b>TELECOM</b> FDI raised to 100% from existing 74%; up to 49% to be approved through automatic route, beyond it through Foreign Investment Promotion Board (FIPB)</p>	 <p><b>DEFENCE</b> 26% FDI through FIPB route stays; for state-of-art technologies, FDI beyond this to be approved through Cabinet Committee on Security</p>
 <p><b>POWER EXCHANGES</b> Route changed to automatic; cap remains 49%</p>	 <p><b>PETROLEUM &amp; NATURAL GAS</b> Route changed from FIPB to automatic; cap remains 49%</p>
 <p><b>CREDIT INFO COMPANIES</b> Cap goes up to 74% from 49%</p>	 <p><b>INSURANCE</b> The limit raised from current 26% to 49% under automatic route</p>

**SINGLE-BRAND RETAIL** FDI up to 49% under automatic route; beyond it through FIPB

Source: The Tribune (Online Edition) on 17 July, 2013

**MULTI BRAND RETAIL TRADING**

FDI in multi brand retail trading, in all products, will be permitted, subject to the following conditions:

- (i) Fresh agricultural produce, including fruits, vegetables, flowers, grains, pulses, fresh poultry, fishery and meat products, may be unbranded.
- (ii) Minimum amount to be brought in, as FDI, by the foreign investor, would be US \$ 100 million.
- (iii) At least 50% of total FDI brought in shall be invested in 'backend infrastructure' within three years of the first tranche of FDI, where, 'back-end infrastructure' will include capital expenditure on all activities, excluding that on front-end units; for instance, back-end infrastructure will include investment made towards processing, manufacturing, distribution, design improvement, quality control, packaging, logistics, storage, ware-house, agriculture market produce infrastructure etc. Expenditure on land cost and rentals, if any, will not be counted for purposes of backend infrastructure.
- (iv) At least 30% of the value of procurement of manufactured/ processed products purchased shall be sourced from Indian 'small industries' which have a total investment in plant & machinery not exceeding US \$ 1.00 million. This valuation refers to the value at the time of installation, without providing for depreciation. Further, if at any point in time, this valuation is exceeded, the industry shall not qualify as a 'small industry' for this purpose. This procurement requirement would have to be met, in the first instance, as an average of five years" total value of the manufactured/ processed products purchased, beginning 1<sup>st</sup> April of the year during which the first tranche of FDI is received. Thereafter, it would have to be met on an annual basis.
- (v) Self-certification by the company, to ensure compliance of the conditions at serial nos. (ii), (iii) and (iv) above, which could be cross-checked, as and when required. Accordingly, the investors shall maintain accounts, duly certified by statutory auditors.
- (vi) Retail sales outlets may be set up only in cities with a population of more than 10 lakh as per 2011 Census and may also cover an area of 10 kms around the municipal/urban agglomeration limits of such cities; retail locations will be restricted to conforming areas as per the Master/Zonal Plans of the concerned cities and provision will be made for requisite facilities such as transport connectivity and parking; In States/ Union Territories not having cities with population of more than 10 lakh as per 2011 Census, retail sales outlets may be set up in the cities of their choice, preferably the largest city and may also cover an area of 10 kms around the municipal/urban agglomeration limits of such cities. The locations of such outlets will be restricted to conforming areas, as per the Master/Zonal Plans of the concerned cities and provision will be made for requisite facilities such as transport connectivity and parking.
- (vii) Government will have the first right to procurement of agricultural products.
- (viii) The above policy is an enabling policy only and the State Governments/Union Territories would be free to take their own decisions in regard to implementation of the policy. Therefore, retail sales outlets may be set up in those States/Union Territories which have agreed, or agree in future, to allow FDI in MBRT under this policy. The list of States/Union Territories which have conveyed their agreement is at (2) below. Such agreement, in future, to permit establishment of retail outlets under this policy, would be conveyed to the Government of India through the Department of Industrial Policy & Promotion and additions would be made to the list at (2) below accordingly. The establishment of the retail sales outlets will be in compliance of applicable State/Union Territory laws/ regulations, such as the Shops and Establishments Act etc. List of States/ Union Territories are Andhra Pradesh, Assam Delhi, Haryana, Jammu & Kashmir, Maharashtra, Manipur, Rajasthan Uttarakhand, Daman & Diu and Dadra and Nagar Haveli (Union Territories).
- (ix) Retail trading, in any form, by means of e-commerce, would not be permissible, for companies with FDI, engaged in the activity of multi-brand retail trading.

Applications would be processed in the Department of Industrial Policy & Promotion, to determine whether the proposed investment satisfies the notified guidelines, before being considered by the FIPB for Government approval.

*How FDI In Retail Will Affect Different Segments*

**Small Manufacturers**

IMPACT → Limited

WHY ↓

Retailers across the world like to work with a small group of select vendors for economies of scale. Nevertheless, the supplier base will be larger in number and smaller in turnover than elsewhere, because of regional diversity in consumption patterns.

**Infrastructure, Cold Chains**

IMPACT → Very little

WHY ↓

Each retailer will invest only for what his own business requires.

**Kirana stores**

IMPACT → Very little

WHY ↓

They operate in small towns and rural India, and serve the lower social class customers as well. Modern retail will target the top income layers in urban areas. In bigger cities, many kirana shops will morph and specialise, offering phone-in home delivery, e-commerce and the like.

**Jobs**

IMPACT → Big

WHY ↓

A new skill category called 'retail jobs' will be created. The birth of modern retail could improve wage rates in traditional retail.

Source: Forbes India Magazine of 26 October, 2012

FDI in retail is very much debatable issue which needs to be resolved by taking into consideration the interest of the stakeholders. The decision to allow entry to foreign players in Multi Brand Retail is clearly a game changer for Indian retail sector. By allowing FDI in retail trade, India will significantly benefit in terms of



quality standards since the inflow of FDI in retail sector is bound to pull up the quality standards and cost-competitiveness of Indian producers and marketers in all the segments. It will also help in integrating the modern Indian retail market with that of the global retail market

On the other hand, FDI in multi-brand retailing must be dealt cautiously as it has direct impact on a large chunk of population. Foreign capital, if unchecked, may widen the gap between the rich and the poor. Thus, the entry of foreign capital into multi-brand retailing needs to be anchored in such a way that it results in a win-win situation both for India and global players

Should there be more regulations to anti-trust laws against big market dominating businesses like Wal-Mart to protect smaller businesses from failure? There has always been a strong push against Wal-Mart from various organizations and people who have had their business defeated. On the other hand, there are also organizations defending Wal-Mart from people who work for the company

India may consider writing laws to prevent foreign retailers like Wal-Mart from having a high concentration of business in the country. For example, in Argentina provincial lawmakers passed legislation that no business could control more than 30% of the market in one sector.

Given the global experience, it is important to keep the foreign food supermarket expansion slow by using mechanisms such as zoning, business licences, and trading restrictions. There are several instances in other countries where large stores are kept away from the traditional markets. Hypermarkets are not allowed within 3.5 km of housing estates or city centres in Malaysia. Indonesia prohibits hypermarkets within 500 m of traditional markets, and large stores of more than 40,000 sq ft are to be at least 2.5 km from traditional markets.

## CATEGORIES OF NON – RESIDENT INVESTORS

A citizen of Bangladesh or an entity incorporated in Bangladesh can invest only under the Government route. Further, a citizen of Pakistan or an entity incorporated in Pakistan can invest, only under the Government route, in sectors/activities other than defence, space and atomic energy and sectors/ activities prohibited for foreign investment. NRIs resident in Nepal and Bhutan as well as citizens of Nepal and Bhutan are permitted to invest in the capital of Indian companies on repatriation basis, subject to the condition that the amount of consideration for such investment shall be paid only by way of inward remittance in free foreign exchange through normal banking channels. OCBs have been derecognized as a class of investors in India with effect from September 16, 2003. Erstwhile OCBs which are incorporated outside India and are not under the adverse notice of RBI can make fresh investments under FDI Policy as incorporated non-resident entities, with the prior approval of Government of India if the investment is through Government route; and with the prior approval of RBI if the investment is through Automatic route.

SEBI registered Foreign Venture Capital Investor (FVCI) may contribute up to 100% of the capital of an Indian Venture Capital Undertaking (IVCU). Qualified Financial Institution are permitted to invest through SEBI registered Depository Participants (DPs) only in equity shares of listed Indian companies through recognized brokers on recognized stock exchanges in India as well as in equity shares of Indian companies which are offered to public in India in terms of the relevant and applicable SEBI guidelines/regulations

## ENTITIES INTO WHICH FDI CAN BE MADE

- **FDI in an Indian Company:** Indian companies can issue capital against FDI.
- **FDI in Partnership Firm / Proprietary Concern:** A Non-Resident Indian (NRI) or a Person of Indian Origin (PIO) resident outside India can invest in the capital of a firm or a proprietary concern in India on non-repatriation basis provided; Amount is invested by inward remittance or out of NRE/FCNR(B)/NRO account maintained with Authorized Dealers / Authorized banks. The firm or proprietary concern is not engaged in any agricultural/plantation or real estate business or print media sector. Amount invested shall not be eligible for repatriation outside India. Investments with repatriation option: NRIs/PIO may seek prior permission of Reserve Bank for investment in sole proprietorship concerns/partnership firms with repatriation option. The application will be decided in consultation with the Government of India. Investment by non-residents other than NRIs/PIO: A person resident outside India other than NRIs/PIO may make an application and seek prior approval of Reserve Bank for making investment in the capital of a firm or a proprietorship concern or any association of persons in India. The application will be decided in consultation with the Government of India. Restrictions: An NRI or PIO is not allowed to invest in a firm or proprietorship concern engaged in any agricultural/plantation activity or real estate business or print media.
- **FDI in Venture Capital Fund (VCF):** FVCIs are allowed to invest in Indian Venture Capital Undertakings (IVCUs) /Venture Capital Funds (VCFs) /other companies.
- **FDI in Trusts:** FDI in Trusts other than VCF is not permitted.
- **FDI in Limited Liability Partnerships (LLPs):** FDI in LLPs is permitted, subject to the following conditions: FDI will be allowed, through the Government approval route, only in LLPs operating in sectors/activities where 100% FDI is allowed, through the automatic route . LLPs with FDI will not be allowed to operate in agricultural/plantation activity, print media or real estate business. An Indian company, having FDI, will be permitted to make downstream investment in an LLP only if both-the company, as well as the LLP- are operating in sectors where 100% FDI is allowed, through the automatic route and there are no FDI-linked performance conditions. Foreign Capital participation in LLPs will be allowed only by way of cash consideration, received by inward remittance, through normal banking channels or by debit to NRE/FCNR account of the person concerned, maintained with an authorized dealer/authorized bank. Investment in LLPs by Foreign Institutional Investors (FIIs) and Foreign Venture Capital Investors (FVCIs) will not be permitted. LLPs will also not be permitted to avail External Commercial Borrowings (ECBs). In case the LLP with FDI has a body corporate that is a designated partner or nominates an individual to act as a designated partner in accordance with the provisions of Section 7 of the LLP Act, 2008, such a body corporate should only be a company registered in India under the Companies Act, 1956 and not any other body, such as an LLP or a trust. Conversion of a company with FDI, into an LLP, will be allowed only if the above stipulations (except clause 3.2.5(e) which would be optional in case of a company) are met and with the prior approval of FIPB/Government.

**FDI in other Entities:** FDI in resident entities other than those mentioned above is not permitted.

## THE FORMS IN WHICH BUSINESS CAN BE CONDUCTED BY A FOREIGN COMPANY IN INDIA

A foreign company planning to set up business operations in India may:

- Incorporate a company under the Companies Act, 1956, as a Joint Venture or a Wholly Owned Subsidiary.
- Set up a Liaison Office / Representative Office or a Project Office or a Branch Office of the foreign company which can undertake activities permitted under the Foreign Exchange Management (Establishment in India of Branch Office or Other Place of Business) Regulations, 2000.

## SECTORS WHERE FDI IS BANNED

FDI is prohibited under the Government Route as well as the Automatic Route in the sectors like Atomic Energy, Lottery Business, Gambling and Betting, Business of Chit Fund, Nidhi Company, Agricultural (excluding Floriculture, Horticulture, Development of seeds, Animal Husbandry, Pisciculture and cultivation of vegetables, mushrooms, etc. under controlled conditions and services related to agro and allied sectors) and Plantations activities (other than Tea Plantations) (c.f. Notification No. FEMA 94/2003-RB dated June 18, 2003), Housing and Real Estate business (except development of townships, construction of residential/commercial premises, roads or bridges to the extent specified in Notification No. FEMA 136/2005-RB dated July 19, 2005), Trading in Transferable Development Rights (TDRs)and Manufacture of cigars , cheroots, cigarillos and cigarettes , of tobacco or of tobacco substitutes.

## ENTRY ROUTES FOR INVESTMENT

An Indian company may receive Foreign Direct Investment under the two routes as given under:

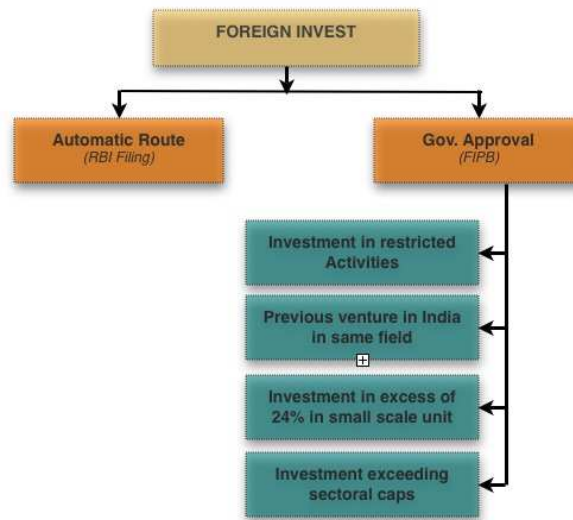
### I. AUTOMATIC ROUTE

FDI is allowed under the automatic route without prior approval either of the Government or the Reserve Bank of India in all activities/sectors as specified in the consolidated FDI Policy, issued by the Government of India from time to time.

**II. GOVERNMENT ROUTE**

FDI in activities not covered under the automatic route requires prior approval of the Government which are considered by the Foreign Investment Promotion Board (FIPB), Department of Economic Affairs, Ministry of Finance. Application can be made in Form FC-IL, which can be downloaded from <http://www.dipp.gov.in>. Plain paper applications carrying all relevant details are also accepted. No fee is payable.

The Indian company having received FDI either under the **Automatic route** or the **Government route** is required to comply with provisions of the FDI policy including reporting the FDI to the Reserve Bank.



Source: [http://www.business-in-asia.com/countries/india\\_fdi.html](http://www.business-in-asia.com/countries/india_fdi.html)

**IMPACT OF THE FDI POLICY**

The FDI Policy framework is one of the key factors driving investment flows to a country. Apart from underlying macro fundamentals, ability of a nation to attract foreign investment essentially depends upon its policy regime- whether it promotes or restrains the foreign investment flows. A review of India's FDI Policy framework with regard to the nature and pattern of FDI inflows into various FDI sectors over the past years as shown bases on DIP data is shown in the following tables:

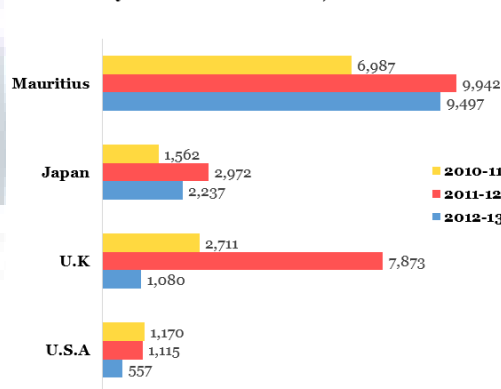
**TABLE 2: STATEMENT ON COUNTRY-WISE FDI EQUITY INFLOWS FROM APRIL, 2000 TO NOVEMBER, 2013**

S.No	Name of the Country	Amount of Foreign Direct Investment Inflows		%age with total FDI Inflows
		(In Rs crore)	(In US\$ million)	
1	Mauritius	361,574.65	77,083.47	36.93
2	Singapore	107,839.84	22,515.91	10.79
3	United Kingdom	100,312.68	20,671.41	9.90
4	Japan	74,470.44	15,269.34	7.31
5	U.S.A	54,277.16	11,692.93	5.60
6	Netherlands	51,562.51	10,472.78	5.02
7	Cyprus	34,581.22	7,259.63	3.48
8	Germany	29,091.68	6,113.50	2.93
9	France	18,101.93	3,780.73	1.81
10	UAE	12,624.19	2,637.77	1.26

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

**CHANGE IN SOURCE OF FDI**

**Country-Wise FDI Inflows, 2010-11 To 2012-13**



Figures are in \$ million  
Source: Lok Sabha

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

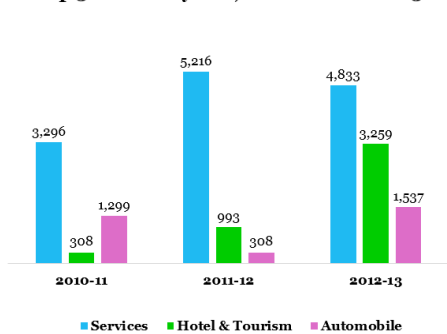
Until 1990, The European countries together with USA and Japan accounted for nearly 90 percent of the total FDI stock in India but now change in source in India's foreign direct investment (FDI), or long-term investment commitments by foreign investors, declined 36% from \$35.1 billion in 2011-12 to \$22.4 billion in 2012-13.

More interestingly, FDI from America has dropped from \$1.1 billion in 2011-12 to only \$557 million in 2012-13. And inflows from the U.K have declined from \$7.9 billion to \$1.1 billion. Mauritius, which has a double taxation avoidance treaty (DTAA) with India and offers easy business rules, continues to be the preferred route for foreign investors... inflows continued to be over \$9 billion in 2012-13.

**SECTORAL COMPOSITION OF FDI**

And not surprisingly, services (including financial, banking, insurance and other businesses) top the inflows chart with a fund flow of \$4.8 billion. This, however, was a decline from \$5.2 billion the sector attracted in 2011-12. The automobile industry attracted funds to the tune of \$1.5 billion – an increase of 62% from \$923 million in the previous year. And the sectors that saw the sharpest decline in inflows include petroleum and natural gas, pharmaceuticals and telecommunications.

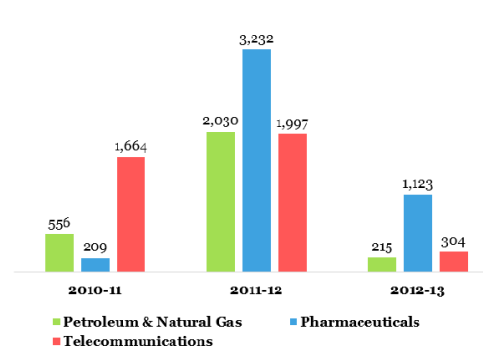
**Top 3 Sectors By FDI, 2010-11 To 2012-13**



Figures are in \$ million  
Source: Lok Sabha

Source:www.indiaspend.com

**Top 3 Sharp Falls by FDI, 2010-11 To 2012-13**



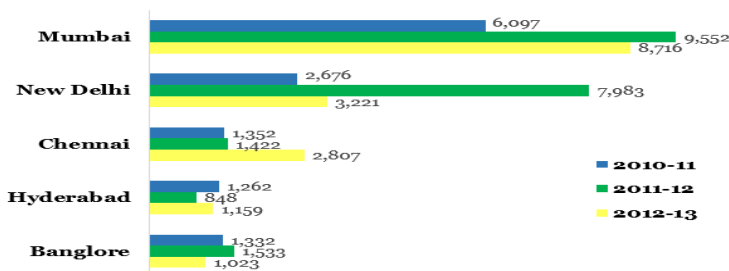
Figures are in \$ million  
Source: Lok Sabha

Source:www.indiaspend.com

**TOP CITIES BY FDI**

Chennai has seen a spurt in investments with overseas investors bringing in \$2.8 billion in 2012-13. Delhi, on the other hand, has seen foreign investments decline to \$3.2 billion from nearly \$8 billion in 2011-12. Mumbai, Hyderabad and Bangalore are the other preferred destinations of foreign investors.

**Top Cities by FDI, 2010-11 To 2012-13**



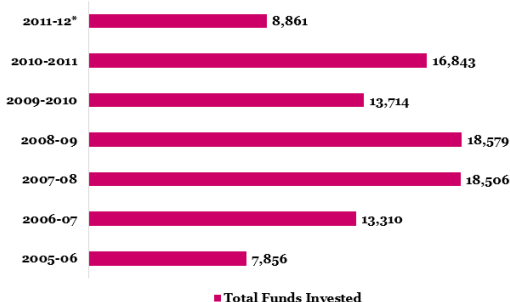
Figures are in \$ million  
Source: Lok Sabha

Source:www.indiaspend.com

**OUTWARD FDI INCREASES, 2005-06 to 2011-12**

Here's a comparison: outward investments by Indian companies (FDI from India) increased during 2005-06 to 2010-11. From \$7.8 billion, it moved up to over \$18 billion in 2008-2009. It, however, has dropped sharply to \$8.9 billion in 2011-12 (till February 22, 2012).

**Outward FDI Increases, 2005-06 To 2011-12**



Figures in \$ million, \* April 2011 to February 22, 2012  
Source: RBI

TABLE 3: FINANCIAL YEAR-WISE FDI INFLOWS DATA (AS PER INTERNATIONAL BEST PRACTICES)

S. No.	Financial Year (April-March)	FOREIGN DIRECT INVESTMENT (FDI)					
		Equity		Re-invested earnings+	Other capital+	FDI FLOWS INTO INDIA	
		FIPB Route/ RBI's Automatic Route/Acquisition Route	Equity capital of unincorporated bodies #			Total FDI Flows	%age growth Ove previous Year (in US\$ terms)
<b>FINANCIAL YEARS 2000-01 to 2013-14 (up to November, 2013)</b>							
1.	2000-01	2,339	61	1,350	279	4,029	-
2.	2001-02	3,904	191	1,645	390	6,130	(+) 52 %
3.	2002-03	2,574	190	1,833	438	5,035	(-) 18 %
4.	2003-04	2,197	32	1,460	633	4,322	(-) 14 %
5.	2004-05	3,250	528	1,904	369	6,051	(+) 40 %
6.	2005-06	5,540	435	2,760	226	8,961	(+) 48 %
7.	2006-07	15,585	896	5,828	517	22,826	(+) 146 %
8.	2007-08	24,573	2,291	7,679	300	34,843	(+) 53 %
9.	2008-09	31,364	702	9,030	777	41,873	(+) 20 %
10.	2009-10 (P) (+)	25,606	1,540	8,668	1,931	37,745	(-) 10 %
11.	2010-11 (P) (+)	21,376	874	11,939	658	34,847	(-) 08 %
12.	2011-12 (P)	34,833	1,022	8,206	2,495	46,556	(+) 34 %
13.	2012-13 (P)	21,825	1,059	11,025	2,951	36,860	(-) 21%
14.	2013-14 (P)(Apr-Nov, 2013)	14,239	616	5,538	926	21,320	-
<b>CUMULATIVE TOTAL</b>							
(from April, 2000 to November, 2013)		209,205	10,437	78,865	12,890	311,398	-

Source: RBI's Bulletin January, 2014 dt. 10.01.2014 (Table No. 34 – FOREIGN INVESTMENT INFLOWS).

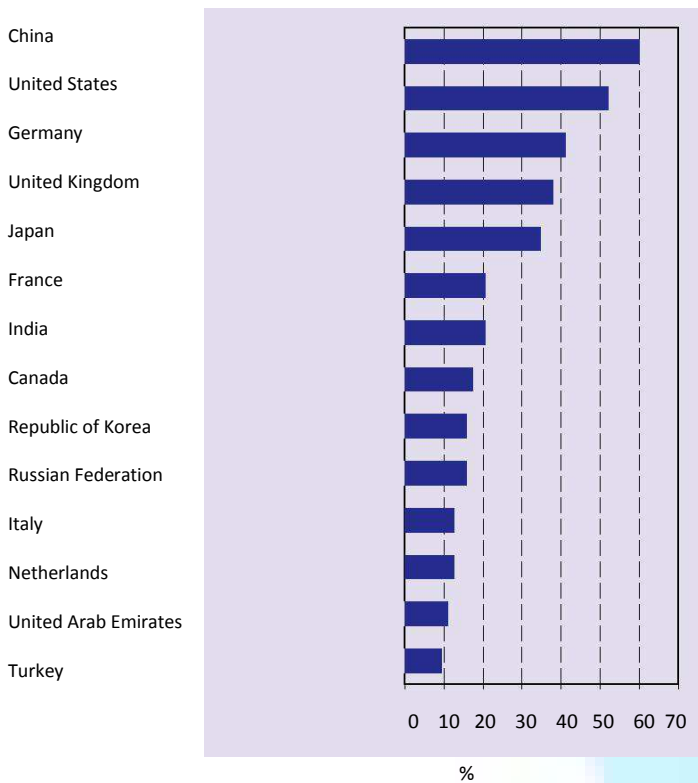
NOTES

- Inflows under the acquisition of shares in March, 2011, August, 2011 & October, 2011, include net FDI on account of transfer of participating interest from Reliance Industries Ltd. to BP Exploration (Alpha).
- RBI had included Swap of Shares of US\$ 3.1 billion under equity components during December 2006.
- Monthly data on components of FDI as per expended coverage are not available. These data, therefore, are not comparable with FDI data for previous years.
- Figures updated by RBI up to November, 2013.
- # Figures for equity capital of unincorporated bodies for 2010-11 are estimates. (P) All figures are provisional
- + Data in respect of 'Re-invested earnings' & 'Other capital' for the years 2009- 10, 2010-11, 2012-13 & 2013-14 are estimated as average of previous two years.

TABLE 4: FINANCIAL YEAR-WISE FDI EQUITY INFLOWS: UPTO NOVEMBER 2013 (As per DIPP's FDI data base – equity capital components only)

S. Nos	Financial Year (April – March)	Amount of FDI Inflows		%age growth over previous year
		In Rs crores	In US\$ million (in terms of US \$)	
<b>FINANCIAL YEARS 2000-01 to 2013-14 (up to November, 2013)</b>				
1.	2000-01	10,733	2,463	-
2.	2001-02	18,654	4,065	( + ) 65 %
3.	2002-03	12,871	2,705	( - ) 33 %
4.	2003-04	10,064	2,188	( - ) 19 %
5.	2004-05	14,653	3,219	( + ) 47 %
6.	2005-06	24,584	5,540	( + ) 72 %
7.	2006-07	56,390	12,492	( + ) 125 %
8.	2007-08	98,642	24,575	( + ) 97 %
9.	2008-09	142,829	31,396	( + ) 28 %
10.	2009-10	123,120	25,834	( - ) 18 %
11.	2010-11	97,320	21,383	( - ) 17 %
12.	2011-12	165,146	35,121	( + ) 64 %
13.	2012-13	121,907	22,423	( - ) 36 %
14.	2013-14 (Apr-Nov, 2013)	92,994	15,458	-
<b>CUMULATIVE TOTAL</b>				
(from April, 2000 to November, 2013)		989,907	208,862	-

Source: www.dipp.com



Source: UNCTAD survey.

### IMPORTANT DEVELOPMENTS

New Zealand is looking to establish an office in Mumbai to broaden its education footprint in India. It plans to set up an education promotion and market development role within the New Zealand Consulate General, Mumbai. There was an increase of more than 10 per cent in student visas issued to Indian nationals in 2013, making India among the fastest growing student markets for New Zealand.

Korean South-East Power Company (KOSEP), part of South Korean state-owned power generator Korea Electric Power Corporation, has signed an initial agreement with Jinbhuvish Group, Mumbai, for technical support for its Rs 3,450-crore (US\$ 549.31 million) project in Maharashtra. The 600 megawatt (mw) power plant, which will be set up in Yavatmal district, is expected to be commissioned in 2016.

India and UAE have agreed to promote collaboration in renewable energy, focusing in the areas of wind power and solar energy. A Memorandum of Understanding (MoU) was signed by Dr Farooq Abdullah, Minister of New and Renewable Energy of India and Dr Sultan Ahmed Al Jaber, Minister of State of UAE in Abu Dhabi on January 18, 2014.

Luxury watch brand Jaeger-LeCoultre from Switzerland has filed for a 100 per cent single brand application to enter the Indian retail market. It thus became the first luxury company to apply for FDI through this route. Geneva-based Richemont SA that owns the luxury brand filed the application with the Department of Industrial Policy and Promotion (DIPP).

France's Lactalis, the biggest dairy products group in the world, will most likely buy out Hyderabad-based Tirumala Milk Products for US \$275–300 million, according to sources. Lactalis has a yearly turnover of about US \$21 billion. Tirumala had a turnover of Rs 1,424 crore (US\$ 226.71 million) for FY 2012–13. The Hyderabad-based company, which was founded in 1998, makes dairy products such as sweets, flavoured milk, curd, ice-cream, etc.

### WHAT MAKE CHINA MORE ATTRACTIVE DESTINATION FOR FDI?

Chinese policies regarding openness of the economy have more pragmatic. In fact economic reforms and liberalization policies were launched about one and half decade earlier than India. Local government plays important role in attracting FDI. Being planned economy there is a greater coordination and effective implementation of FDI policies. Stable political environment and disciplined workforce. Nagraj, "however, it well recognized that large share of investment flow in China represent round tripping-recycling of domestic saving via Hong Kong to take advantage of tax, tariff and other benefits offered to nonresident Chinese. This is estimated to be in the range of 40-50 percent of the total FDI.

### CONCLUSION

**KEY STATISTICS**-India has received total foreign investment of US\$ 306.88 billion since 2000 with 94 per cent of the amount coming during the last nine years. In the period 1999–2004, India received US\$ 19.52 billion of foreign investment. In the period 2004–09, foreign investment in the country touched US\$ 114.55 billion, further increasing to US\$ 172.82 billion between 2009–September, 2013. During FY 2012–13, India attracted FDI worth US\$ 22.42 billion. Tourism, pharmaceuticals, services, chemicals and construction were among the biggest beneficiaries. The January–November period in 2013 witnessed mergers and acquisitions deals worth US \$ 26.76 billion in India, according to a survey by tax advisory firm Grant Thornton.

**INDIA MOVING TOWARDS REALISTIC FDI POLICY**- India's Foreign Direct Investment (FDI) policy has been gradually liberalized to make the market more investor friendly. The results have been encouraging. These days, the country is consistently ranked among the top three global investment destinations by all international bodies, including the World Bank, according to a United Nations (UN) report. For an economy like India which has tremendous potential, FDI has had a positive impact. FDI inflows supplement domestic capital, as well as technology and skills of existing companies. It also helps to establish new companies. All of these contribute to economic growth. In 2013, the government relaxed FDI norms in several sectors, including telecom, defence, PSU oil refineries, power exchanges and stock exchanges, among others. In retail, UK-based Tesco submitted its application to initially invest US\$ 110 million to start a supermarket chain in collaboration with Tata Group's Trent. In civil aviation, Malaysia-based Air Asia and Singapore Airlines teamed up with Tata Group to launch two new airline services. Also, Abu Dhabi-based Etihad picked up a 24 per cent stake in Jet Airways that was worth over Rs 2,000 crore (US\$ 319.39 million). As compared to the growth of about 34% in FY 2011-2012, there has been a decline in FDI in FY 2012-13(-21%). This is possibility due to procedural delays in implementation of several large projects. However cumulative inflow of FDI into India has been increasing over the years and therefore the FDI Policy has very successful.

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## AN EMPIRICAL STUDY ON CONSTRUCTION OF OPTIMUM PORTFOLIO USING HARRY MARKOWITZ MODEL: A CASE STUDY WITH SPECIAL REFERENCE TO S&P CNX NIFTY COMPANIES

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### ABSTRACT

A Portfolio is a combination of different investment assets mixed and matched for the purpose of achieving an investor's goal. A portfolio is a professional way to display projects and prevents them from getting lost, dirty or damaged. The key to creating an efficient portfolio is reaching desired goal by using as little resources as possible. The ideal investment is to pick a low risk stock in hopes of big returns. That is nearly impossible. In the game of investing, high risk equals high return and vice versa. Harry Markowitz's Modern Portfolio Theory explains that by diversification the potential risk can be dispersed throughout portfolio. This means balance a high risk stock with a low risk stock, as well as investing in different sectors. The paper is to empirically study An Empirical Study on construction of Optimum portfolio using Harry Markowitz Model. The study is analytical in nature and used secondary data analysis to attain its objectives. The secondary data consists of the annual reports of S&P CNX Nifty of 50 companies covering the last five years from 2008-09 to 2012-13. Various other reports like magazines, journals, published books and official websites are also referred to for the present study. The statistical tools applied for data analysis in the present study are Percentages, Simple Average, Weighted Averages, Variance, Standard Deviation, Covariance, Coefficient of Variation, ratios, portfolio return and portfolio variance. The result depicts that optimum portfolio containing Asian Paints, Bajaj Auto, Dr. Reddy' Lab., HUL, TCS, and BPCL can be built.

### KEYWORDS

EVA (Economic Value Added), MVA (Market Value Added), ROE (Return on Equity).

### INTRODUCTION

Portfolio is a combination of different investment assets mixed and matched for the purpose of achieving an investor's goal. A portfolio is a professional way to display projects and prevents them from getting lost, dirty or damaged. The key to creating an efficient portfolio is reaching desired goal by using as little resources as possible. The ideal investment is to pick a low risk stock in hopes of big returns. That is nearly impossible. In the game of investing, high risk equals high return and vice versa. Harry Markowitz's Modern Portfolio Theory explains that by diversification the potential risk can be dispersed throughout portfolio. This means balance a high risk stock with a low risk stock, as well as investing in different sectors.

Here is a right way and a wrong way to build a securities portfolio. Like horse racing, where you may do well short term by picking horses by the color of their silks. Share market is an arena which fascinates each and every individual who is craving for more money. Trading in stocks is quiet simple; an investor has to possess some basic knowledge of the security that he will be trading.

Building a portfolio is not as simple as putting random pieces of work into a folder, and requires time, thought and organization. Building a stock portfolio is very difficult to do because it takes a lot of study. But, in the end, the ability of the stock market to grow over time will most likely lead to reaching goals. This ensures people who view portfolio can see talents instantly and are more likely to be impressed by what they see.

### CONCEPTUAL FRAMEWORK OF PORTFOLIO

Globalization of the financial market has led to a manifold increase in investment. New markets have been opened; new instruments have been developed and new services have been launched. India has a well-established capital market mechanism where in effective and efficient transfer of money capital or financial resources from the investing class to the entrepreneur class in the private and public sector of the economy occurs. The numbers of acts are passed to boost the revolutionary change.

Investment means buying securities or other monetary or paper (financial) assets in the money markets or capital markets, or in fairly liquid real assets, such as gold as an investment, real estate, or collectibles. Valuation is the method for assessing whether a potential investment is worth its price. These investments assets are then expected to provide income or positive future cash flows, but may increase or decrease in value giving the investor capital gains or losses.

"Portfolio is a combination of securities such as stocks, bonds and money market instruments. The process of blending together the broad asset classes so as to obtain optimum return with minimum risk is called portfolio construction". A Large numbers of portfolios can be formed from a given set of assets. Each portfolio has risk return characteristics of its own. Portfolio theory originally developed by Harry Markowitz shows that portfolio risk, unlike portfolio return, is more than a simple aggregation of the risk of individual assets. This depends on the interplay between the returns on assets comprising the portfolio. As investors construct a portfolio of investment rather than invest in a single asset. This section extends the analysis of risk and return associated with portfolio investments.

Diversification of investments helps to spread risk over many assets. A diversification of securities gives the assurance of obtaining the anticipated return on the portfolio. In a diversified portfolio some securities may not perform as expected, but others may exceed the expectation and making the actual return of the portfolio reasonably close to the anticipated one. Keeping a portfolio of a single security may lead to a greater likelihood of the actual return somewhat different from that of the expected return. Hence, it is a common practice to diversify securities in the portfolio.

### RISK AND RETURN OF PORTFOLIO

#### PORTFOLIO EXPECTED RETURN

The expected rate of return on a portfolio is the weighted average of the expected/average rates of return on assets comprising the portfolio. The weights, which add up to 1, reflect the fraction of total rate of return on each assets and the relative share of each asset in the portfolio. Symbolically the expected return for an-asset portfolio is defined by

$$E(rp) = \sum w_i E(ri) \text{ or } AR(rp) = \sum w_i AR(ri)$$

Where

$$E(rp) \text{ or } AR(rp) = \text{Expected/ average return from portfolio}$$

$$w_i = \text{Proportion invested in asset}$$

$E(r_i)/AR(r_i)$  = Expected/ average return for asset

#### PORTFOLIO RISK (TWO ASSETS PORTFOLIO)

Total risk is measured in terms of variance ( $\sigma^2$  pronounced sigma square) or standard deviation ( $\sigma$  pronounced sigma) of returns. Unlike portfolios expected return, portfolio variance (or standard deviation) is not the weighted average of variance (or standard deviation) of returns on individual assets (securities) in the portfolio. The overall risk of the portfolio includes the interactive risk of an asset relative to the others, measured by the covariance of returns. The covariance, in turn, depends on the **correlations** between returns on assets in the portfolio. The minimum Variance portfolio is also called the **optimum portfolio**. However, investors do not necessarily strive for the minimum variance portfolio. A risk-averse investor will have a trade-off between risk and return. The choice of a particular portfolio will depend on risk preference. General formula for estimating optimum weights of two securities X and Y so that the portfolio variance is minimum:

$$W^* = \frac{\sigma_y^2 - \text{COV}_{xy}}{\sigma_x^2 + \sigma_y^2 - 2\text{COV}_{xy}}$$

Where  $W^*$  is the optimum portion of investment in security X. Investment in Y will be:

$$1 - W^*$$

**The total risk of a portfolio made up of two assets:**

$$\sigma_p^2 = (w_1 \sigma_1)^2 + (w_2 \sigma_2)^2 + 2 w_1 w_2 (r_{12} \sigma_1 \sigma_2)$$

**The total risk of a portfolio made up of six assets:**

$$\sigma_p^2 = (w_1 \sigma_1)^2 + (w_2 \sigma_2)^2 + (w_3 \sigma_3)^2 + (w_4 \sigma_4)^2 + (w_5 \sigma_5)^2 + (w_6 \sigma_6)^2 + 2 w_1 w_2 (\text{Cov}_{.12}) + 2 w_1 w_3 (\text{Cov}_{.13}) + 2 w_1 w_4 (\text{Cov}_{.14}) + 2 w_1 w_5 (\text{Cov}_{.15}) + 2 w_1 w_6 (\text{Cov}_{.16}) + 2 w_2 w_3 (\text{Cov}_{.23}) + 2 w_2 w_4 (\text{Cov}_{.24}) + 2 w_2 w_5 (\text{Cov}_{.25}) + 2 w_2 w_6 (\text{Cov}_{.26}) + 2 w_3 w_4 (\text{Cov}_{.34}) + 2 w_3 w_5 (\text{Cov}_{.35}) + 2 w_4 w_5 (\text{Cov}_{.45}) + 2 w_4 w_6 (\text{Cov}_{.46})$$

#### STATEMENT OF THE PROBLEM

One aspect of financial engineering is the development of portfolio management strategies. Portfolio Construction is one of the important components of Portfolio management. It is vital task which requires skill of analytical bent of mind with adequate knowledge. It is a complex process passing through various phases, the most important being selection of securities. While selecting securities, the various parameters are considered, the most significance is objectives of investors. Keeping in view adequate diversification in portfolio, principle of dominance – maximum return with given level of risk and minimum risk with given level of return – is followed. Obviously, diversification/the asset allocation process refers to the process of investing money in different financial assets. Different stages of the asset allocation process, e.g., strategic and tactical asset allocation are described. Asset allocation process is an iterative process since a continuous monitoring of the portfolio characteristics is essential. There is no generally accepted methodology for this problem.

The first step of the elaboration of an asset allocation strategy is the definition of the risk measure. However, not all risk measures are well suited for the derivation of optimal asset allocation strategies. Following lack of time, unsound knowledge, insufficient diversification, and quick reaction to market sentiments, investors burnt their fingers in their investment.

The investment decisions are derived from the portfolio optimization. A portfolio optimization is only possible once a model of the portfolio return and risk is built. Various models have been developed namely Harry Markowitz, William F. Sharpe and Arbitrage Pricing Theory. Based on these models, portfolio return and risk and its characteristics are computed.

Hence, an attempt is made to “An Empirical Study on Construction of Optimum Portfolio using Harry Markowitz Model”. The findings of this undoubtedly help investors, academicians, and budding mutual fund/ portfolio managers.

#### OBJECTIVES OF THE STUDY

1. To analyse securities for selection from each sector based on aggregate weighted average of Return on Equity, Economic Value Added, Market Value Added and Retention Ratio;
2. To construct the optimal portfolio computing portfolio return and risk using what if analysis for Harry Markowitz Model;
3. To provide findings/ results based on analysis.

#### RESEARCH DESIGN

In view of the objectives of the study listed above, exploratory research design has been adopted. Exploratory research is one, which largely interprets the already available information, and it lays particular emphasis on analysis and interpretation of the existing and available information and it makes use of secondary data.

#### RESEARCH METHODOLOGY

The study is based on secondary data and discussions with concerned personnel. The secondary data consists of the annual reports of S&P CNX Nifty of 50 companies covering the last five years from 2008-09 to 2012-13. Various other reports like magazines, journals, published books and official websites are also referred to for the present study. While calculating weighted averages, recent years are given more weightages and distant years are given the least weightages. Only one security having the highest ranking based on those parameters from each sector is chosen to maintain portfolio diversification. The criterion for awarding marks/points depends on the higher the rank, the higher the marks/points. While considering risk and return of selected securities based on said parameters, those securities are further filtered having coefficient of variation of maximum two. Cost of equity capital is calculated using dividend growth model for calculation of weighted average cost of capital to find out economic value added. Ninety eight scenarios of weights are used to arrive at optimum weightage fixing minimum of 5% and maximum of 75% of total investment to be allocated in each security. Finally, the optimum portfolio is built using Markowitz model.

#### SOURCES OF DATA

**TOOLS OF ANALYSIS:** The data collected for the study is analysed logically and meaningfully to arrive at meaningful conclusions. The statistical tools applied for data analysis in the present study are Percentages, Simple Average, Weighted Averages, Variance, Standard Deviation, Covariance, Coefficient of Variation, ratios, portfolio return and portfolio variance.

#### FINDINGS

1. Hindustan Unilever stands first in the ranking of Weighted Average ROE of 90.318%. It is followed far away by two companies Hero Motors and Bajaj-Auto in the range of 50%-55% of ROE, five companies including TCS and Asian Paints in the range of 30% - 40%; nine companies in the range of 20% - 30%, twenty companies covering Dr. Reddy's Lab. in the range of 10% -20%, and rest of eight companies consisting of BPCL below 10%.
2. Coal India Limited has the highest Weighted Average MVA of Rs. 4177.393crore. There are Asian paint of Rs. 3088.418crs., Infosys of Rs. 2307.995crs, Grasim of Rs. 1628.417, Hero Motors of Rs. 1505.804 crs., Bajaj-Auto of Rs. 1433.811crs., BHEL of Rs. 1193.423crs., Dr. Reddy's Lab. of Rs. 1192.811, TCS of Rs. 1085.455 crs., and L&T of Rs. 1004.383. Twelve companies are in the group of Rs. 500crs – 1000crs. Twenty four companies including HUL and BPCL are below Rs. 500 crs. Four companies have negative Weighted Average MVA.
3. ONGC leads in Weighted Average ranking of EVA of Rs26198.882 crore following by Reliance Ind. of Rs. 22265.133, HDFC of Rs. 14464.835NTPC of Rs. 11621.961crs., SBI of Rs.11248.017 crs., nine companies including TCS in the range of Rs. 10000 – 5000 crs., thirty two companies comprising BPCL, Bajaj Auto, HUL and Dr. Reddy's Lab. in the group of Rs. 5000 – 1000 crs., three companies including Asian Paints below Rs 1000 crs and only one negative Weighted Average EVA.



4. The highest weighted Average Retention Ratio of 94.891% is achieved by Kotak Mahindra Bank which is followed by Bharati Airtel with 93.135%, Jindal Steel 92.057, Ultra Tech Cement with 89.313%, Maruti Suzuki with 87.997%, Sesa Goa with 86.901%, Reliance Ind. with 85.003%, Reliance Infra with 83.175%, Cipla with 82.365% , Indus ind. Bank 81.584%, Grasim with 80.992%, Bank of Baroda with 80.70%, Axis bank with 80.309 and Tata Steel with 80.094% , eleven Companies having Dr. Reddy's Lab. with range of 80%-70%, nine companies including BPCL with range of 60%-70%, eight companies containing Asian Paint, TCS and Bajaj Auto encompassing with range of 50%-60%. Rest eight companies comprising HUL below 50%.

5. In view of selection of each company from one industry, ONGC from Oil Exploration/production industry stands the first ranking in terms of weighted Average totals of all parameters of EVA, MVA, ROE and Retention Ratio. It is followed by Reliance Ind. from refineries industry, HDFC from housing Financial Institution industry, SBI from Banking industry, NTPC from Power industry, TCS from Computer Software, Coal India from Mining, Bharati Airtel from Telecom industry, Tata Steel from Steel industry, L&T from Engineering industry, BHEL from electronics industry, ITC from Cigarette industry, IDFC from Financial Institution industry, Bajaj-Auto from two wheelers Automobile industry, Asian paints from Paints industry, GAIL from Gas industry, Mahindra & Mahindra from Automobile-4 wheelers, Grasim from Cement Industry, HUL from diversified industry, Jai Prakash Associates from construction Industry, Hindalco from Aluminium industry and Dr Reddy from Pharmaceuticals industry respectively have been chosen.

6. Again, while choosing from selected companies of one industry, the criterion of coefficient of variation having maximum of two are considered for portfolio selection.

A. ONGC from Oil Exploration/production industry, Reliance Ind. from refineries industry, NTPC from Power industry, Coal India from Mining, Bharati Airtel from Telecom industry, BHEL from electronics industry and Jai Prakash Associates from construction Industry have been eliminated since they have negative returns.

B. HDFC from housing Financial Institution industry, SBI from Banking industry, Tata Steel from Steel industry, L&T from Engineering industry, ITC from Cigarette industry, IDFC from Financial Institution industry, GAIL from Gas industry, Mahindra & Mahindra from Automobile- 4 wheelers, Grasim from Cement Industry, and Hindalco from Aluminium industry have been dropped from selected companies since their co-efficient of Variation is more than two.

C. HDFC from housing Financial Institution industry, SBI from Banking industry, TCS from Computer Software, Tata Steel from Steel industry, L&T from Engineering industry, ITC from Cigarette industry, IDFC from Financial Institution industry, Bajaj-Auto from two wheelers Automobile industry, Asian paints from Paints industry, GAIL from Gas industry, Mahindra & Mahindra from Automobile- 4 wheelers, Grasim from Cement Industry, HUL from diversified industry, Hindalco from Aluminium industry and Dr Reddy from Pharmaceuticals industry have been continued from selected companies.

D. TCS from Computer Software, Bajaj-Auto from two wheelers Automobile industry, Asian paints from Paints industry and Dr Reddy, Lab. from Pharmaceuticals industry and HUL from diversified industry, have been continued to find a place in optimum portfolio construction. However, only BPCL from refineries industry, have maximum returns with minimum risk having less than one coefficient of variation. Hence, it has been accommodated in portfolio construction.

7. Covariance of Asian Paints and BPCL, Asian Paints and HUL , Bajaj Auto and BPCL, , Bajaj Auto and HUL, BPCL and TCS, BPCL and HUL, Dr Reddy's Lab. And HUL and TCS are negative. Rest is positive.

8. Among various scenarios, **the least portfolio risk** of 0.144153 at which proportion or weight of 5% (0.05) of total investment in Asian paints, 5% in Bajaj Auto, 5% in BPCL, 5% in Dr.Reddy'Lab., 5% in TCS and 75% in HUL.

9. Among various scenarios, **the least Coefficient of Variation** of 0.579013 at which proportion or weight of 10% (0.10) of total investment in Asian paints, 5% in Bajaj Auto, 70% in BPCL, 5% in Dr.Reddy'Lab., 5% in TCS and 5% in HUL. Rests of them are not that much consistent as the first one. Hence, this is the best portfolio.

10. Optimum weight of 10:5:70:5:5:5 ratio of investment in Asian paints, Bajaj Auto, BPCL, Dr. Reddy' Lab, TCS and HUL respectively is considered optimum portfolio by achieving the minimum variance portfolio using all alternative scenarios.

## CONCLUSION

Portfolio construction is a complex and lengthy process. Once optimum portfolio is built, it does not mean that it comes to an end process. It is beginning for implementation and keeps under continuous monitoring and evaluation. Meanwhile there are hiccups in portfolio following sudden and unexpected shocks from external forces. Hence, it has to keep a long way for its success.

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## APPENDIX

## APPENDIX-1: RETURN ON EQUITY (ROE) OF S&amp;P CNX NIFTY COMPANIES

Companies Name	Industry	2008-09	2009-10	2010-11	2011-12	2012-13	Wt. Avg.
ACC	cement and cement products	24.61	26.7	17.31	18.42	14.37	18.365
Ambuja Cements	cement and cement products	24.73	18.83	17.24	15.28	14.73	16.592
Asian Paints	paints	33.1	49.73	39.24	38.52	34.74	38.537
Axis Bank	banks	17.77	15.67	17.83	18.59	15.64	17.011
Bajaj Auto	automobiles - 2 and 3 wheelers	38.92	58.14	68.01	49.72	38.51	50.044
Bank of Baroda	banks	17.35	20.24	20.2	18.22	14.01	17.424
BhartiAirtel	telecommunication - services	28.13	25.79	17.6	11.6	9.41	15.064
BHEL	electrical equipment	26.53	24.25	27.08	29.82	27.74	27.617
BPCL	refineries	13.53	6.06	11.74	11	8.79	9.921
Cairn India.	oil exploration/production	0.16	-0.21	-0.66	0.13	13.35	4.335
Cipla	pharmaceuticals	17.89	18.31	14.54	14.9	16.99	16.179
Coal India	mining	18.35	21.62	22.15	24.3	41.22	28.756
DLF	construction	12.5	5.96	9.19	7.18	3.43	6.524
Dr. Reddy's Lab.	pharmaceuticals	10.66	14.3	14.84	13.58	16.25	14.623
GAIL (India)	gas	20	18.98	18.69	18.49	16.89	18.163
Grasim Industries	cement and cement products	17.39	29.31	14.54	12.93	12.11	15.46
HCL Technologies	computers - software	24.29	28.59	21.41	20.45	29.53	25.01
HDFC	finance - housing	17.37	18.59	20.41	21.67	19.39	19.961
HDFC Bank.	banks	15.32	13.7	15.47	17.26	18.57	16.735
Hero Motors	automobiles - 2 and 3 wheelers	32.41	33.72	64.41	65.21	55.43	55.405
Hindalco Ind.	aluminium	9.38	6.86	7.19	7.1	5.08	6.565
HUL	diversified	122.97	121.34	85.25	87.57	76.62	90.319
I T C	cigarettes	23.85	28.98	31.36	32.88	33.28	31.587
ICICI Bank	banks	7.58	7.79	9.35	10.7	12.48	10.427
IDFC	financial institution	12.2	14.84	12.17	12.84	13.11	13.02
IndusInd Bank	banks	10.39	16.19	15.12	17.79	13.92	15.259
Infosys	computers - software	25.2807	28.46389	26.29688	26.33418	32.67449	28.654
Jaiprakash Associates.	construction	15.66	14.5	20.84	12.7	8.34	13.312
Jindal Steel & Power	steel and steel products	32.95	28.38	21.94	23.76	19.46	23.191
Kotak Mahindra Bank	banks	7.06	12.35	11.97	13.59	14.37	12.925
Larsen & Toubro	engineering	27.99	23.95	18.44	17.68	16.85	19.079
Lupin	pharmaceuticals	30.31	25.64	25.69	21.53	26	24.985
Mahindra & Mahindra	automobiles - 4 wheelers	16.03	26.74	25.92	23.8	22.87	23.788
Maruti Suzuki India	automobiles - 4 wheelers	13.04	21.1	16.5	10.76	12.87	14.142
NMDC	mining	52.3655	50.2049	31.03991	45.02194	29.76	38.319
NTPC	power	13.9	13.69	13.31	12.58	15.69	13.999
ONGC	oil exploration/production	23.87	20.65	19.39	19.56	22.24	20.852
PGCI	power	10.53	12.49	12.92	12.71	13.57	12.864
PNB	banks	23.52	24.06	22.12	18.52	14.52	18.979
Ranbaxy Lab.	pharmaceuticals	-29.5	14.44	22.41	-158.61	-8.45	-40.672
Reliance Ind.	refineries	13.36	12.64	13.88	12.29	11.66	12.516
Reliance Infra.	power	10.81	8.18	6.28	10.78	9.88	9.235
SBI	banks	15.74	13.89	12.71	13.94	14.26	13.914
Sesa Goa	mining	42.99	29.38	29.62	13	0.92	16.481
Sun Pharma.	pharmaceuticals	24.09	24.56	15.71	20.71	54.75833	31.798
Tata Motors	automobiles - 4 wheelers	8.09	15.15	9.06	6.42	1.57	6.607
Tata Power	power	10.66	8.99	8.42	9.94	8.35	9.027
Tata Steel	steel and steel products	21.1	13.45	14.22	12.82	9.17	12.519
TCS	computers - software	35.13	37.3	38.8	44.24	39.32	39.979
UltraTech Cement	cement and cement products	37.37	27.13	23.73	13.16	19.02	20.704

## APPENDIX-2: MARKET VALUE ADDED (MVA) OF S&amp;P CNX NIFTY COMPANIES

Companies Name	Industry	2008-09	2009-10	2010-11	2011-12	2012-13	Wt. Avg.
ACC	cement and cement products	217.59	552	731.01	753.81	1038.97	781.647
Ambuja Cements	cement and cement products	32.79	61.78	95.3	102.97	143.91	104.912
Asian Paints	paints	672.25	1876.5	2319.87	2982.64	4602.17	3088.418
Axis Bank	banks	130.45	772.26	941.08	594.21	593.2	656.07
Bajaj Auto	automobiles - 2 and 3 wheelers	489.22	1812.4	1293.56	1470.03	1526.47	1433.811
Bank of Baroda	banks	-118.02	224.34	428.69	127.81	-83.51	114.028
BhartiAirtel	telecommunication - services	480.74	216.31	241.98	207.74	149.17	214.407
BHEL	electrical equipment	1841.25	1246.23	2065.49	1650.94	153.48	1193.423
BPCL	refineries	85.58	40.6	156.08	223.03	287.74	197.723
Cairn India .	oil exploration/production	15.64	137.54	183.67	166.55	94.37	131.985
Cipla	pharmaceuticals	164.19	264.8	239.4	211.18	269.28	240.207
Coal India	mining	8230.19	10322.68	10319.79	316.33	312.13	4177.393
DLF	construction	94.39	233.31	187.2	116.4	148.67	155.437
Dr. Reddy's Lab.	pharmaceuticals	177.49	924.65	1283.36	1368.56	1308.21	1192.811
GAIL (India)	gas	271.66	129.16	278.17	312.22	205.77	242.815
Grasim Industries	cement and cement products	548.69	2036.54	1570.98	1634.86	1710.42	1628.417
HCL Technologies	computers - software	205.03	50.01	285.71	392.89	388	311.583
HDFC	finance - housing	950.35	2187.87	583.15	544.54	664.58	838.44
HDFC Bank.	banks	628.96	1463.31	1800.42	392.33	473.15	859.461
Hero Motors	automobiles - 2 and 3 wheelers	545	880.82	1770.88	1441.42	1840.42	1505.804
Hindalco Ind.	aluminium	-87.66	35.4	54.03	-35.08	-82.96	-27.326
HUL	diversified	222.19	228.05	227.71	274.91	393.8	295.337
I T C	cigarettes	148.61	226.36	161.55	202.93	281.24	220.26
ICICI Bank	banks	-112.14	489.49	637.89	366.19	466.99	438.681
IDFC	financial institution	7.55	108.49	84.6	54.73	54.76	64.737
IndusInd Bank	banks	-8.11	117.39	181.65	225.15	258.92	197.788
Infosys	computers - software	1013	2231.93	2814.57	2348.09	2261.4	2307.995
Jaiprakash Associates.	construction	193.33	31.83	110.97	49.56	23.84	60.489
Jindal Steel & Power	steel and steel products	575.32	-117.31	1162.36	823.31	605.44	676.548
Kotak Mahindra Bank	banks	169.22	617.75	365.11	437.6	526.23	458.773
Larsen & Toubro	engineering	459.08	1327.57	1299.5	897.47	892.63	1004.383
Lupin	pharmaceuticals	518.49	1342.84	345.99	445.89	520.25	575.13
Mahindra & Mahindra	automobiles - 4 wheelers	191.74	403.33	525.5	487.72	612.98	506.045
Maruti Suzuki India	automobiles - 4 wheelers	456.4	1008.3	785.01	824.82	666.17	763.877
NMDC	mining	9737.59	126.45	258.4	236.04	99.44	813.803
NTPC	power	108.3	129.97	110.16	73.86	44.46	81.097
ONGC	oil exploration/production	650.39	412.08	690.62	177.33	136.32	329.155
PGCI	power	62.92	74.99	64.37	62.34	54	61.691
PNB	banks	-5.29	497.98	580.22	147.61	-206.55	152.601
Ranbaxy Lab.	pharmaceuticals	168.11	422.94	476.91	359.3	457.58	411.321
Reliance Ind.	refineries	797.09	681.74	-3393.15	252.39	215.41	-395.485
Reliance Infra.	power	49.48	424.24	47.3	-117.75	-445	-110.409
SBI	banks	154.37	1039.44	1741.9	845.3	627.15	931.727
Sesa Goa	mining	42.21	383.7	158.01	46.12	5.65	99.758
Sun Pharma.	pharmaceuticals	1026.2	862.73	1515.92	377.99	491.65	751.309
Tata Motors	automobiles - 4 wheelers	-60.34	498.67	933.42	214.3	209.17	376.021
Tata Power	power	378.24	929.82	864.22	51.41	44.83	350.689
Tata Steel	steel and steel products	-125.78	213.11	119.06	-224.79	-255.61	-101.306
TCS	computers - software	402.17	703.93	1084.37	1042.31	1409.89	1085.455
UltraTech Cement	cement and cement products	567.96	262.13	784.8	742.29	1045.33	776.162

## APPENDIX-3: ECONOMIC VALUE ADDED (EVA) OF S&amp;P CNX NIFTY COMPANIES

Companies Name	Industry	2008-09	2009-10	2010-11	2011-12	2012-13	Wt. Avg.
ACC	cement and cement products	1217.36	1673.63	992.87	1094.28	1201.3	1195.124
Ambuja Cements	cement and cement products	1424.8	1223.17	1252.62	1212.07	1371.52	1288.993
Asian Paints	paints	374.67	786.46	787.41	984.18	1080.71	910.006
Axis Bank	banks	1817.78	2544.7	3425.55	4274.77	5225.06	4027.215
Bajaj Auto	automobiles - 2 and 3 wheelers	658.58	1697.6	3299.97	2982.21	3044.71	2740.405
Bank of Baroda	banks	2231.47	3085.85	4282.34	5053.23	4536.93	4276.517
BhartiAirtel	telecommunication - services	6790.73	7003.13	8634.79	10074.88	8428.88	8609.685
BHEL	electrical equipment	2907.45	3075.72	4401.43	6007.27	7006.62	5421.689
BPCL	refineries	2906.12	2626.99	2416.25	3124.9	3009.84	2863.844
Cairn India .	oil exploration/production	7810.98	1616.89	28.31	2493.3	1542.12	1920.9
Cipla	pharmaceuticals	829.55	1097.98	974.28	1136.1	1547.31	1215.286
Coal India	mining	2962.87	3965.58	4053.06	4753.38	8528.27	5647.203
DLF	construction	2393.48	1664.01	2586.98	2603.23	2220.55	2333.208
Dr. Reddy's Lab.	pharmaceuticals	608.96	884.76	938.71	1027.98	1334.28	1065.196
GAIL (India)	gas	2673.75	2916.58	3226.91	3721.12	4096.81	3570.409
Grasim Industries	cement and cement products	1742.91	2161.71	1173.86	1212.34	1267.48	1384.977
HCL Technologies	computers - software	805.59	1033.42	1156.28	1301.38	2048.73	1542.695
HDFC	finance - housing	9953.52	9896.05	11085.89	15062.44	18743.89	14464.835
HDFC Bank.	banks	2248.22	2988.96	3974.56	5209.77	6774.54	4990.773
Hero Motors	automobiles - 2 and 3 wheelers	981.54	1295.32	2243.21	1958.45	2413.85	2013.657
Hindalco Ind.	aluminium	2388.25	2390.01	2734.8	2579.46	2261.27	2466.457
HUL	diversified	1949.24	2473.14	2165.07	2309.29	2685.04	2403.542
I T C	cigarettes	3233.73	4104.4	5032.34	6248.88	7506.46	5937.827
ICICI Bank	banks	3767.1	4100.07	5243.17	6553.31	8417.28	6399.76
IDFC	financial institution	2763.1	2960.18	3638.39	5030.41	6434.55	4792.868
IndusInd Bank	banks	148.41	350.75	577.51	802.46	1060.51	739.656
Infosys	computers - software	9397.45	8715.62	6664.74	6007.54	5969.7	6713.439
Jaiprakash Associates.	construction	993.99	1497.41	2893.44	2674.66	2806.73	2493.428
Jindal Steel & Power	steel and steel products	1492.41	1800.52	1818.53	2559.21	2666.4	2274.527
Kotak Mahindra Bank	banks	276.79	568.35	828.77	1094.72	1372.06	1009.265
Larsen & Toubro	engineering	4294.14	5452.74	5234.7	6150.54	5912.01	5671.063
Lupin	pharmaceuticals	466.61	687.04	862.82	866.8	1294.92	958.062
Mahindra & Mahindra	automobiles - 4 wheelers	926.64	2175.8	2737.78	3047.31	3550.09	2895.416
Maruti Suzuki India	automobiles - 4 wheelers	1305.07	2570.79	2426.85	1742.92	2587.86	2242.545
NMDC	mining	7283.86	6521.71	3481.1	4386.63	3297.59	4320.337
NTPC	power	8679.63	10026.01	10137.36	10829.74	14373.34	11621.961
ONGC	oil exploration/production	21125.49	23554.68	27825.03	29650.74	24534.07	26198.882
PGCI	power	3478.59	5132.18	3732.23	4478.57	5237.97	4602.918
PNB	banks	3090.54	3901.14	4427.66	4878.72	4740.87	4493
Ranbaxy Lab.	pharmaceuticals	-910.79	506.48	1196.52	-2980.67	136.21	-503.326
Reliance Ind.	refineries	17106.5	18352.96	22745.3	22817.45	24131.77	22265.133
Reliance Infra.	power	1345.33	1330.68	1196.49	2602.42	2891.16	2164.109
SBI	banks	9137.44	9273.27	7492.71	11817.98	14257.25	11248.017
Sesa Goa	mining	2491.32	2837.45	4150.29	2465.48	603.3	2233.033
Sun Pharma.	pharmaceuticals	1019.14	1268.4	897.98	1384.81	1928.34	1428.723
Tata Motors	automobiles - 4 wheelers	1758.13	3640.25	3314.4	2468.2	1696.66	2489.195
Tata Power	power	1241.53	1394.37	1392.57	1693.47	1709.1	1568.489
Tata Steel	steel and steel products	6693.43	6921.93	8586.6	8648.93	6965.9	7714.821
TCS	computers - software	4806.79	5642.64	7590.75	11122.78	12818.22	9829.767
UltraTech Cement	cement and cement products	1089.7	1112.73	1218.92	1571.67	2623.85	1758.523

## APPENDIX -4: RETENTION RATIO OF S&amp;P CNX NIFTY COMPANIES

Companies	Industry	2008-09	2009-10	2010-11	2011-12	2012-13	Wt. Avg.
ACC	cement and cement products	61.35	68.11	31.22	53.9	53.13	51.499
Ambuja Cements	cement and cement products	70.81	71.21	69.2	66.42	69.89	69.064
Asian Paints	paints	47	54.64	53.54	53.21	50.91	52.286
Axis Bank	banks	76.94	77.47	80.22	81.85	80.94	80.309
Bajaj Auto	automobiles - 2 and 3 wheelers	53.79	62.55	46.73	47.81	49.95	50.671
Bank of Baroda	banks	82.78	82.08	82.24	83.78	76.36	80.705
BHEL	electrical equipment	67.63	68.88	70.49	74.21	76.67	73.137
BPCL	refineries	88.7	72.27	62.68	65.32	65.09	67.201
BhartiAirtel	telecommunication - services	95.22	94.78	94.3	92.3	92.57	93.315
Cairn India.	oil exploration/production	100	0	0	100	60.61	53.537
Cipla	pharmaceuticals	81.93	81.97	72.77	83.4	87.54	82.365
Coal India	mining	50.97	39.63	47.55	21.68	9.72	27.213
DLF	construction	76.19	53.3	70.06	62.12	17.43	48.573
Dr. Reddy's Lab.	pharmaceuticals	79.43	71.35	65.74	76.86	76.45	73.936
GAIL (India)	gas	63.65	64.72	68.93	64.9	64.68	65.525
Grasim Industries	cement and cement products	79.99	81.95	83.33	81.45	78.83	80.922
HCL Technologies	computers - software	48.4	71.14	50.03	50.51	73	60.521
HDFC Bank.	banks	77.79	78.25	77.28	77.31	77.24	77.438
Hero Motors	automobiles - 2 and 3 wheelers	60.01	-25.86	-34.38	50.59	34.98	18.827
Hindalco Ind.	aluminium	79.29	62.72	68.05	79.17	83.36	76.157
HUL	diversified	18.5	21.25	21.79	26.77	-46.02	0.223
HDFC	finance - housing	51.94	57.48	56.6	54.2	53.36	54.687
I T C	cigarettes	48.67	-12.31	17.06	31.98	34.58	25.070
ICICI Bank	banks	63.23	61.4	64.77	67.18	68.78	66.197
IDFC	financial institution	77.54	64.01	68.61	75.01	74.12	72.135
IndusInd Bank	banks	70.78	77.59	81.33	85.09	82.69	81.584
Infosys	computers - software	74.6	70.67	37.72	60.72	68.84	61.079
Jaiprakash Associates.	construction	84.36	45.03	71.87	87.89	73.79	74.036
Jindal Steel & Power	steel and steel products	94.9	91.89	93.03	92.77	90.4	92.057
Kotak Mahindra Bank	banks	89.92	94.75	94.96	95.24	95.62	94.891
Larsen & Toubro	engineering	72.84	71.91	72.54	74.74	73.71	73.453
Lupin	pharmaceuticals	70.25	79.29	80.78	75.28	83.39	79.283
Mahindra & Mahindra	automobiles - 4 wheelers	67.67	69.55	68.46	68.65	72.69	70.013
Maruti Suzuki India	automobiles - 4 wheelers	90.44	91.59	89	84.61	88.18	87.997
NMDC	mining	76.49	76.43	76.61	71.67	48.94	66.037
NTPC	power	51.75	54.8	51.13	57.06	49.36	52.652
ONGC	oil exploration/production	48.6	49.54	54.1	56.03	55.06	53.960
PGCI	power	69.34	65.41	64.71	65.37	64.81	65.321
PNB	banks	76.12	79.25	81.73	82.25	76.49	79.417
Ranbaxy Lab.	pharmaceuticals	0	100	86.64	0	0	30.661
Reliance Ind.	refineries	85.92	84.16	85.87	84.21	85.36	85.033
Reliance Infra.	power	73.77	81.25	75.88	88.94	85.59	83.175
Sesa Goa	mining	90.03	83.38	89.04	79.64	92.21	86.901
SBI	banks	77.11	76.67	73.97	77.41	77.21	76.537
Sun Pharma.	pharmaceuticals	73.11	64.28	69.56	74.4	-17.27	41.440
TCS	computers - software	70.74	19.37	57.79	48.06	60.7	51.906
Tata Motors	automobiles - 4 wheelers	62.49	30.22	25.12	19.91	0.48	18.689
Tata Power	power	40.16	63.82	61.97	67.19	70.56	65.018
Tata Steel	steel and steel products	71.16	79.66	78.97	78.23	84.22	80.094
UltraTech Cement	cement and cement products	92.73	91.88	86.4	89.59	89.13	89.313

## APPENDIX-5: RANK-WISE DISTRIBUTION OF S&amp;P CNX NIFTY COMPANIES BASED ON PARAMETERS

Companies Name	Industry	Rank-wise				
		MVA	EVA	ROE	Retention Ratio	Grand Average
ONGC	oil exploration/production	329.16	26198.88	20.85	53.96	6650.713
Reliance Ind.	refineries	-395.48	22265.13	12.52	85.032667	5491.801
HDFC	finance - housing	838.44	14464.83	19.96	77.438	3850.167
SBI	banks	931.73	11248.02	13.91	86.901333	3070.140
NTPC	power	81.1	11621.96	14	52.652	2942.428
TCS	computers - software	1085.46	9829.77	39.98	80.094	2758.826
Coal India	mining	4177.39	5647.2	28.76	27.213333	2470.141
Infosys	computers - software	2308	6713.44	28.65	61.078667	2277.792
BhartiAirtel	telecommunication - services	214.41	8609.69	15.06	73.136667	2228.074
Tata Steel	steel and steel products	-101.31	7714.82	12.52	65.018	1922.762
ICICI Bank	banks	438.68	6399.76	10.43	66.197333	1728.767
Larsen & Toubro	engineering	1004.38	5671.06	19.08	73.452667	1691.993
BHEL	electrical equipment	1193.42	5421.69	27.62	67.200667	1677.483
I T C	cigarettes	220.26	5937.83	31.59	25.07	1553.688
HDFC Bank.	banks	859.46	4990.77	16.73	18.827333	1471.447
NMDC	mining	813.8	4320.34	38.32	66.037333	1309.624
IDFC	financial institution	64.74	4792.87	13.02	72.135333	1235.691
Axis Bank	banks	656.07	4027.21	17.01	80.309333	1195.150
PNB	banks	152.6	4493	18.98	79.417333	1185.999
PGCI	power	61.69	4602.92	12.86	65.321333	1185.698
Bank of Baroda	banks	114.03	4276.52	17.42	80.705333	1122.169
Bajaj Auto	automobiles - 2 and 3 wheelers	1433.81	2740.41	50.04	50.671333	1068.733
Asian Paints	paints	3088.42	910.01	38.54	52.286	1022.314
GAIL (India)	gas	242.81	3570.41	18.16	65.525333	974.226
Hero Motors	automobiles - 2 and 3 wheelers	1505.8	2013.66	55.4	76.157333	912.754
Mahindra & Mahindra	automobiles - 4 wheelers	506.05	2895.42	23.79	70.013333	873.818
BPCL	refineries	197.72	2863.84	9.92	93.315333	791.199
Grasim Industries	cement and cement products	1628.42	1384.98	15.46	80.922	777.446
Maruti Suzuki India	automobiles - 4 wheelers	763.88	2242.55	14.14	87.997333	777.142
Jindal Steel & Power	steel and steel products	676.55	2274.53	23.19	92.056667	766.582
Tata Motors	automobiles - 4 wheelers	376.02	2489.19	6.61	51.906	730.932
HUL	diversified	295.34	2403.54	90.32	54.686667	710.972
UltraTech Cement	cement and cement products	776.16	1758.52	20.7	89.313333	661.173
Jaiprakash Associates.	construction	60.49	2493.43	13.31	74.036	660.317
DLF	construction	155.44	2333.21	6.52	48.573333	635.936
Hindalco Ind.	aluminium	-27.33	2466.46	6.56	0.223333	611.478
Sesa Goa	mining	99.76	2233.03	16.48	76.536667	606.452
Dr. Reddy's Lab.	pharmaceuticals	1192.81	1065.2	14.62	73.936	586.642
Sun Pharma.	pharmaceuticals	751.31	1428.72	31.8	41.44	563.318
Reliance Infra.	power	-110.41	2164.11	9.24	83.174667	536.529
Cairn India .	oil exploration/production	131.99	1920.9	4.34	53.536667	527.692
ACC	cement and cement products	781.65	1195.12	18.36	51.498667	511.657
Tata Power	power	350.69	1568.49	9.03	18.688667	486.725
HCL Technologies	computers - software	311.58	1452.69	25.01	60.520667	462.450
Lupin	pharmaceuticals	575.13	958.06	24.99	79.282667	409.366
Kotak Mahindra Bank	banks	458.77	1009.26	12.93	94.890667	393.963
Cipla	pharmaceuticals	240.21	1215.29	16.18	82.365333	388.511
Ambuja Cements	cement and cement products	104.91	1288.99	16.59	69.064	369.889
IndusInd Bank	banks	197.79	739.66	15.26	81.584	258.574
Ranbaxy Lab.	pharmaceuticals	411.32	-503.33	-40.67	30.661333	-25.505

## APPENDIX 6: RETURN, RISK AND COEFFICIENT OF VARIATION OF NIFTY COMPANIES

Companies Name	Return	Risk	Coefficient of Variation
ONGC	-0.07	0.44	-6.35
Reliance Ind.	-0.17	0.17	-0.99
HDFC	0.01	0.64	80.88
SBI	0.16	0.52	3.34
NTPC	-0.03	0.12	-3.5
TCS	0.22	0.36	1.68
Coal India	-0.18	0.44	-2.37
Infosys	0.23	0.44	1.91
BhartiAirtel	-0.16	0.24	-1.53
Tata Steel	0.2	1.11	5.68
ICICI Bank	0.31	0.94	3.05
L & T	0.11	0.82	7.38
BHEL	-0.15	0.52	-3.55
I T C	0.15	0.33	2.16
HDFC Bank	0.08	0.66	8.31
NMDC	0.75	2.08	2.79
IDFC	0.26	1.01	3.85
Axis Bank	0.31	0.9	2.85
PNB	0.23	0.74	3.17
PGCI	0.03	0.07	2.24
Bank of Baroda	0.38	0.84	2.21
Bajaj Auto	0.6	1.02	1.7
Asian Paints	0.48	0.72	1.51
GAIL (India)	0.18	0.49	2.66
Hero Motors	0.34	0.42	1.22
Mahindra & Mahindra	0.12	0.35	2.96
Grasim Ind.	0.09	0.44	4.72
BPCL	0.22	0.18	0.83
Maruti Suzuki	0.14	0.39	2.78
Jindal Steel & Power	0.76	2.05	2.69
Tata Motors	0.49	1.67	3.38
HUL	0.19	0.17	0.88
UltraTech Cement	0.23	0.54	2.34
Jaiprakash Ass.	-0.18	0.58	-3.22
DLF	-0.01	0.59	-41.02
Hindalco Ind.	0.27	1.29	4.81
Sesa Goa	0.38	1.91	5.04
Dr. Reddy's Lab.	0.37	0.72	1.94
Sun Pharma.	0.05	0.52	9.93
Reliance Infra.	-0.1	0.61	-6.04
Cairn India	0.09	0.35	4
ACC	0.2	0.49	2.49
Tata Power	-0.1	0.62	-6.16
HCL	0.45	1.22	2.68
Lupin	0.31	0.76	2.49
Kotak Mahindra Bank	0.22	0.87	3.91
Cipla	0.14	0.26	1.77
Ambuja Cements	0.17	0.41	2.43
IndusInd Bank	0.97	1.94	2.01
Ranbaxy Lab.	0.14	0.58	4.02

## APPENDIX 7: CO-VARIANCE MATRIX OF SELECTED COMPANIES

Companies	Asian Paints	Bajaj Auto	BPCL	Dr Reddy's Lab.	TCS	HUL
Asian Paints	0.412	0.438	-0.094	0.384	0.143	-0.014
Bajaj Auto	0.438	0.825	-0.116	0.501	0.037	-0.045
BPCL	-0.094	-0.116	0.027	-0.08	-0.019	-0.004
Dr Reddy's	0.384	0.501	-0.08	0.414	0.121	-0.045
TCS	0.143	0.037	-0.019	0.121	0.105	-0.006
HUL	-0.014	-0.045	-0.004	-0.045	-0.006	0.022

**APPENDIX 8: SCENARIO WEIGHTS WITH ASCENDING ORDER OF PORTFOLIO RISK**

Asian Paints	Bajaj Auto	BPCL	Dr Reddy's Lab.	TCS	HUL	Portfolio Risk	Portfolio Return	C.V
0.05	0.05	0.05	0.05	0.05	0.75	0.144153	0.235873	0.61114
0.1	0.05	0.05	0.05	0.05	0.7	0.150347	0.250235	0.60082
0.05	0.05	0.75	0.05	0.05	0.05	0.154313	0.258443	0.59708
0.1	0.05	0.7	0.05	0.05	0.05	0.157025	0.271194	0.57901
0.1	0.1	0.1	0.1	0.05	0.55	0.162207	0.273542	0.59298
0.1	0.1	0.1	0.05	0.05	0.6	0.163983	0.272216	0.60239
0.1	0.1	0.05	0.05	0.05	0.65	0.168299	0.270604	0.62194
0.1	0.1	0.6	0.1	0.05	0.05	0.169263	0.289664	0.58434
0.1	0.1	0.1	0.1	0.1	0.5	0.169879	0.28261	0.60110
0.1	0.1	0.5	0.1	0.1	0.1	0.171828	0.295508	0.58146
0.1	0.1	0.65	0.05	0.05	0.05	0.172165	0.28995	0.59377
0.1	0.1	0.55	0.1	0.1	0.05	0.175601	0.29712	0.59100
0.15	0.1	0.1	0.1	0.1	0.45	0.184889	0.296972	0.62258
0.15	0.1	0.45	0.1	0.1	0.1	0.185287	0.308258	0.60107
0.15	0.15	0.15	0.1	0.1	0.35	0.213331	0.318953	0.66884
0.15	0.15	0.4	0.1	0.1	0.1	0.214431	0.327014	0.65572
0.15	0.15	0.1	0.1	0.1	0.4	0.21479	0.317341	0.67684
0.15	0.15	0.15	0.15	0.1	0.3	0.215855	0.32028	0.67395
0.15	0.15	0.35	0.15	0.1	0.1	0.216647	0.326728	0.66308
0.15	0.15	0.25	0.15	0.15	0.15	0.22909	0.332572	0.68884
0.15	0.15	0.15	0.15	0.15	0.25	0.229232	0.329348	0.69602

**APPENDIX 9: SCENARIO WEIGHTS WITH DESCENDING ORDER OF CO-EFFICIENT OF VARIATION**

Asian Paints	Bajaj Auto	BPCL	Dr Reddy's	TCS	HUL	C.V
0.1	0.05	0.7	0.05	0.05	0.05	0.579013
0.1	0.1	0.5	0.1	0.1	0.1	0.581467
0.1	0.1	0.6	0.1	0.05	0.05	0.584344
0.1	0.1	0.55	0.1	0.1	0.05	0.591009
0.1	0.1	0.1	0.1	0.05	0.55	0.592987
0.1	0.1	0.65	0.05	0.05	0.05	0.593775
0.05	0.05	0.75	0.05	0.05	0.05	0.597088
0.1	0.05	0.05	0.05	0.05	0.7	0.600825
0.15	0.1	0.45	0.1	0.1	0.1	0.601079
0.1	0.1	0.1	0.1	0.1	0.5	0.601109
0.1	0.1	0.1	0.05	0.05	0.6	0.602399
0.05	0.05	0.05	0.05	0.05	0.75	0.611147
0.1	0.1	0.05	0.05	0.05	0.65	0.621941
0.15	0.1	0.1	0.1	0.1	0.45	0.62258
0.15	0.15	0.4	0.1	0.1	0.1	0.655723
0.15	0.15	0.35	0.15	0.1	0.1	0.66308
0.15	0.15	0.15	0.1	0.1	0.35	0.668846
0.15	0.15	0.15	0.15	0.1	0.3	0.673958
0.15	0.15	0.1	0.1	0.1	0.4	0.676844
0.15	0.15	0.3	0.15	0.15	0.1	0.687524
0.15	0.15	0.25	0.15	0.15	0.15	0.688844
0.15	0.15	0.15	0.15	0.15	0.25	0.69602
0.2	0.15	0.2	0.15	0.15	0.15	0.718096
0.2	0.15	0.15	0.15	0.15	0.2	0.72192
0.15	0.15	0.15	0.25	0.15	0.15	0.724314

**APPENDIX-10: OPTIMUM PORTFOLIO**

Companies	Weights	Risk	Return	Portfolio Return	Portfolio Risk	Coefficient Variation
Asian Paints	0.10	0.72	0.48	<b>0.2711</b>	<b>0.1570</b>	<b>0.5790</b>
Bajaj Auto	0.05	1.02	0.6			
BPCL	0.70	0.18	0.22			
Dr Reddy's Lab.	0.05	0.72	0.37			
TCS.	0.05	0.36	0.22			
HU L	0.05	0.17	0.19			
Total	1.00					



## ASSESSING THE IMPLEMENTATION PRACTICES OF URBAN LAND LEASE POLICY ON URBAN TOWNS OF TIGRAI NATIONAL REGIONAL STATE, ETHIOPIA

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### ABSTRACT

*This paper presents the findings of a study of assessing the implementation practices of urban land lease policy in Tigray national regional state, Ethiopia. The principal source of information (data) was primary household level cross sectional data collected from 1000 randomly selected rural households of which 800 of them were urban land lease beneficiaries, investors, and government officials and the remaining 200 were informal settlers. The main bottlenecks of urban land lease policy implementation practices are poor documentation mechanisms, lack of uniform land information system, and weak law enforcement system. The study revealed that the main determinant factors of informality were increasing level of poverty, high unemployment rate, high population growth, high house rentals, limited supply of land, high cost of input materials for construction, increasing number of illegal land transfers, lack of awareness for the program, lack of collateral security to borrow from financial institutions, illegal purchase of land, lack of low income estate agents, and very weak administrative control mechanisms. However, the intensity of land informality was not the same in all cities of the region. To address informality, the government officials employed mainly the no action (the laissez-faire approach) response option. Finally, to resolve the cases of informality the city administrators must have an open frequent discussions with the settlers, program implementers should capacitate themselves, the government should provide condominium houses to be sold on long term (life time) basis at lower interest and encourage local real estate agents as an alternative house provider at lower price.*

### JEL CODES

R11, R38, R58.

### KEYWORDS

Land, Policy, Tigray, Town, Urban Land Leas.

### INTRODUCTION

Land is a basic natural resource and one of the key factors of production. It supports all human activities and it is from it that all other Economic resources are derived. It can hardly be renewed or increased without adverse consequences, and therefore must be judiciously and efficiently managed in a sustainable manner for the use and good of all. It is for this reason those different countries over the entire world have evolved land tenure systems to protect various "interests" in land and for effective land governance and management (Olusola Atilola, 2010). Land is a factor of production essential to the provision of urban housing services and the production of agricultural goods. It is also demanded as a financial asset since it is often a good hedge against inflation, especially in countries where financial markets are not well developed (Bacry Y., et al, 2009). Land is more than just another factor of production or an economic good: it embodies other values such as homeland, place of ancestry, basis for survival, a prerequisite for individual freedom. It is also an object which is taxed and desired by government or interest groups; it is an instrument of power and dependency, a cause of conflict and war. This social construction of land is currently being reappraised in the context of market reforms and globalization of national economies and in the light of social responsibility of landed property amidst far-reaching structural changes in post-industrial and industrializing economies (Land Tenure in Development Cooperation Guiding Principles Summary - Working Paper, 2010).

According to the report of UN (1999), cities of nations of the globe are growing at a rate of 2% annually. While in 2000 about half of the world's population lived in cities, almost 2/3 (60.3%) will reside in urban areas in 2030. Especially African, Asian and Latin American cities are characterized by high urban growth rates (3.5% for Africa, 2.4% for Asia and 1.7% for Latin America) caused by natural population growth and rural-urban migration as well as by the underlying pull- and push factors such as the lacking infrastructure in rural areas and the hope for employment in the cities. As a result of the uncontrolled and uncoordinated growth of urban agglomeration characterized by informal land acquisition, fragmentation of peri-urban land, inefficient use of land, poorly functioning land markets etc. urban development is far from being sustainable. Taking the importance of land and the expansion of cities due to population growth and rural urban migration, the Ethiopian government has revised the urban land lease policy. According to the most recent urban land lease proclamation No 721/2011, land (rural and urban) is the property of state and peoples of Ethiopia and cannot be sold or exchanged. However, urban land can be used for private purpose via leasehold system for specified period of time. The main types of urban land tenure are lease holding and the free holding/permit system. Lease holding rights includes the right to occupy any building on the premises by means of a mortgage, and the right to erect, alter, or demolish buildings or improvements; the right to encumber the leasehold (the land and building); the right to dispose of the leasehold to any other person, which includes the right to sublet or bequeath the leasehold; and the right to be compensated (for the land and for the building). Free holding right differs from lease holding in that the free holder has no right to use the land as collateral; cannot dispose, transfer, and bequeath the land and has no right to be compensated for the land. This has serious implications for the mobility of urban landowners, asset buildings, and livelihood diversification of urban land owners (Ibid). The Ethiopian government policy and strategy aimed mainly at eradicating extreme poverty and hunger through improved access to land. Most cities and towns of the country (Ethiopia) are still struggling with a number of challenges (Gondo, 2008). According to Haimanot, 2009, the general perception among most town and city administrators is that the land delivery system has not been able to solve the urban land lease. Thus, the administration of public urban land lease requires a considerable level of skill and highly integrity in the working technical steps, so as to avoid unnecessary works time and tedious bureaucratic that result favoritism and informal payment. Although the urban land lease implementation practices is important to ones country cities or towns development is infant program in Ethiopia and previous research studies on urban land lease policy and informality have been studied (Bacry Y., et al., 2009, Sisay, H, Haimanot, 2009), most of them focused their research areas of studies in Addis Ababa and very few in Bahirdar. And to the best of knowledge of the researcher there was no studies conducted in the stud areas.

### OBJECTIVES OF THE STUDY

The main objective of the study is to assess the implementation Practices of Urban Land Lease Policy in selected senior urban towns of Tigray National Regional State, Ethiopia. Specifically, the objectives are:

- To assess the key bottlenecks that affects the implementation practices of urban land lease policy
- To identify the major determinant factors of urban land informality
- To assess the policy response institutional option adopted to combat the urban land informality

Definition: "lease" means a system of land tenure by which the right of use of urban land is acquired under a contract of a definite period.

Definition: "urban land" means land located within an administrative boundary of an urban center; (Federal Negarit Gazeta "Proclamation No. 721/2011"). A squatter settlement is settlements where land and/or building have been occupied without the permission of the owner (UN-Habitat, 2003). In this study the researcher defined urban informal settlers or informality to be same as that of squatter settlement defined by UN-Habitat, 2003 above.

**Advantages of a lease system in Ethiopia:** The present government of Ethiopia accepted urban land leaseholds in its new urban land policy to exploit the advantages of achieving efficient land use planning, encouraging investors and investment and possibility of reclaiming (the is the possibility it gives to reclaim land from leaseholders when it is required for other purposes. In the leasehold system, it is certainly less expensive and easier to take land back than when it is in private ownership) (Bacry, *et al.*, 2009).

## METHODOLOGY

**DATA SOURCES AND SAMPLING PROCEDURE:** In order to arrive at reliable findings from the research study, the researcher applied both field and desk surveying method and then collected various types of data related to the research questions under consideration. Primary data was mainly employed through a combined quantitative and qualitative structure and semi-structure questionnaire. In addition, interviews and discussions with relevant officials of the government, private investors, and residents were held. Relevant documents, journals, reports, books, newspapers, project reports, etc were also used as a source of information to supplement the primary data. The cities/towns were selected from the four administrative zones, and one special zone and then cities/towns were selected from each administration zone based on the lease towns population size and the practices of implementing the urban lease policy. And 200 informal settlers were taken from all zones including Mekelle proportionally. Then, the study employed a total of 1000 sample respondents using appropriate proportional sampling procedure.

**METHODOLOGY OF DATA ANALYSIS:** Data was analyzed using both qualitative and quantitative methods. Descriptive statistics like mean, frequency, percentages, etc and Statistical Package for Social Science (SPSS) was mainly be employed to analyze the data.

## DISCUSSION AND DATA ANALYSIS

The need for transparent and accountable land management practices that promote equitable distribution have been recognized (Oruwari, 2004). Yet, in practice this appears harder to achieve. The challenges of the current urban land leasing system of Tigray National Regional State mainly have been studied. The assessment of urban land policy implementation practices in leased towns of Tigray National Regional State has shown that there are several issues that need due attention. The problems that tackle urban land lease policy implementation practices have been categorized from the following points of view: urban land lease implementers limitation, residents' awareness, investors' awareness, and informal settlers' seem to be main ones. The main key bottle necks are mentioned below:

### KEY BOTTLENECKS OF THE IMPLEMENTATION PRACTICES OF URBAN LAND LEASE POLICY IN TIGRAI NATIONAL REGIONAL STATE

#### ▪ LACK OF PUBLIC (RESIDENTS) AWARENESS ON URBAN LAND LEASE POLICY

The Opinions of people who are directly affected by the policy (the investment, and housing sector) that are involved in the implementation of the urban land lease policy would have been used to evaluate the current urban land lease policy implementation and practices. According to the response of the governmental officials, though they have provided so many times awareness creation program utilization utilizing different occasions an opportunity where they can get the society to conduct the awareness, the society still lacks awareness on the program. About 85% of the governmental officials responded that still there is lack of awareness in the society on the urban land lease policy implementation and this demands further awareness creation.

#### ▪ THE URBAN LAND LEASE OFFICES ARE NOT EMPOWERED PROPERLY (FINANCIAL, EQUIPMENT, AND MANPOWER)

According to the government official program implementers' response, the key bottleneck for implementing the program was problems related to government official implementers themselves due the fact that they have limited knowhow on the implementation program. The government official program implementers were asked if they have been trained or not and the training frequency in the last six month while the research conducted. Only 10% of them reply yes that is one time, but the rest did not and according to the program implementers they have replied that as they need frequent training of course it is not sake for getting per diem but to boost their knowhow on the program implementation. The second problem mentioned according to the government officials was the turnover of staffs. This was due to the fact that employees quit their job mainly due to low salary payment. The average work experience of the respondents was two years and this indicates that there was lack well experienced staffs due to the turnover staffs. The researcher has identified the status of the employees that there was no a single PhD holder in any of the zones where the study conducted. Most of the employees' status was degree holders however very few staffs have had second degrees. About 20%, 30%, 45% and 5% of the employees in Sothorn zone were certificate, diploma, degree, and master holders, respectively. In Mekelle 15%, 25%, 50%, and 10% of the employees were certificate, diploma, degree, and master holders, respectively. Relatively in Mekelle more degree and master holders were dominate than the other zone employees. This might be due the fact that Mekelle is the capital city of the region where most professionals select for residence. In Eastern zone where our University (Adigrat University) located the employees status of the program implementers who hold certificate, diploma, degree, and master were 20%, 25%, 50% and 5%, respectively. Status of the employees found in Central zone who hold certificate, diploma, degree, and master were 25%, 35%, 38%, and 2%, respectively. In Western and North Western 25% and 30% of the employees have had certificate, 35% and 30% of the employees them have had diploma, 39% and 40% of them were degree holders and 1% and 0% of the employees were master holders, respectively. Respondents have been asked question whether the program implementation was highly affected by the turn over staff or not. About 85% of them replied that the program implementation was highly affected by the turnover of staffs while 15% of them did not agree that though there was turnover of staff the implementation of the program was not highly hindered by the turn over of staffs.

#### ▪ LACK OF A CONSOLIDATED LAND REGISTRY FOR URBAN AREAS

While the researcher was conducting the study, it was hard to get the appropriate information. The documentation style was too traditional almost in all towns as a result the researcher was unable to get the necessary information. Not alone to get information electronically, no file was there to get information in document of the residential who obtained their residence house via lease.

#### ▪ LACK OF UNIFORM LAND INFORMATION SYSTEM

About 50% of the sample respondents were not satisfied by services mainly information they obtain from the implementers. This was worse in Western zone of the region. About 85% of the total sample respondents of the zone were dissatisfied by services or information provided by the implementers.

#### ▪ REGULATION PROBLEMS

There were poor follow up by the government officials to lease beneficiaries both the residence utilizers and investors according to the urban land lease directives.

## THE MAJOR DETERMINANTS OF URBAN LAND INFORMALITY

A total sample size of 200 informal settlers was employed proportionally from the four zones and Mekelle city to assess the determinants of the land informality related problems. A proactive way of dealing with challenges of urban land informality should be adopt in a systematic and intelligent way of doing in more collaborative approach way. The major cause of urban land informality has been the failure by many to get access to land assets (Daniel, W., 2011). One of the inhibiting factors is that the poor have a low propensity to save and hence a low propensity to borrow money from lending institutions. This situation has also been compounded by the increases in inflation levels. The general inflation rates in the a single five year period for instance reached 12.1% in which peaks were registered during 2006/07 (17.85) and 2003/04 (15%) Tendayi G. ( ). Urban Land Informality: Informal land development has become one the main means of access to urban land and housing by the urban poor in many developing and transitional countries, initially in Latin America and more recently also in Asia,

Africa, and the Middle-East. The main factors more commonly associated to informal development have been the lack of sufficient, affordable and accessible social housing policies; the lack of options of access to serviced land and housing offered by the formal sector; the concentration of services and equipments in few parts of the cities; and renewed political patronage practices. To these factors, it should be added that the nature of the legal order in general, and concrete legal practices, have also played a fundamental role in the determination of informal development (Edesio Fernandes, Unpublished). The level and scale of informality associated with Ethiopia's urban land policy has often been difficult to distinguish quantitatively. However a more qualitative approach based city/town officials perceptions reveals that the most affected land use has been residential, followed by commercial, industrial and lastly recreation (Tendayi G., ). According to him, the major cause of such informality has been the challenges or flaws associated with the land administration process among other factors that relate to historical land tenure systems and urbanization. Land administration in this analysis includes the functions involved in regulating the development and use of the land, gathering revenue from the land (through sale, lease, or taxation, etc), and resolving conflicts concerning the ownership and use of the land. The nature and trends in informality tends to vary from one urban area to another (Tendayi G.,). Descriptive statistics indicated that the magnitude of the informal settlers was different among towns and cities in Tigray National Regional State. The magnitude of the informal settlers in Mekelle city was higher than the other cities in the study areas. Almost in all zones or cities of the region the most frequently mentioned factors which causes land informality was mainly due to the following reasons: increasing level of poverty, unaffordable cost of land by the poor (high price of land in the formal market), high unemployment rate, population growth, high house rentals, limited supply of land, high cost of input materials for construction, increasing number of illegal land transfers, lack of awareness for the program (limited public participation in planning and urban services), lack of collateral security to borrow from financial institutions, illegal purchase of land, lack of low income estate agents, increasing rural-urban migration resulting in increased demand for land versus limited supply of land, corruption by some government officials (biasness) and very weak administrative control mechanisms to combat the informal settlers. Land informality was highly exercised in Mekelle followed by central zone and the least was observed in Western zone of the region according to the result findings of the study. About 60% of the informal settlers obtained their land purchasing from peri urban arable land of the farmers with less price while the remaining established their house on their own arable land illegally. There were 30% of informal settlers who have obtained their land via illegal land transfer from other relatives and 10% of them were possessing their land via corruption they gave some amount of money as bribe to tabia administrators and then the officials gave a permission letter via stamped to build house indicating that the date of permission ahead. This was commonly practiced in almost all cities or towns. Land information systems as they relate to the land market are generally inadequate. This problem has been compounded by a slow computerization process as well as the shortage of skilled manpower, shortage of manpower, corruption by some officials, nepotism (partiality) and the absence of an adequate information system are other factors that have rendered efforts by local governments in the land market inadequate. Procedures relating to access to land, registration and permission to develop have been dismissed by some officials as time consuming and flawed. This has largely been attributed to bureaucratic procedures that are involved and alleged corruption activities by some officials. The majority of the sampled officials (75%) acknowledged having witnessed irregularity in the land delivery system. Only a small proportion (25%) had not witnessed the problems with the land delivery system in their respective zones.

### INSTITUTIONAL RESPONSE OPTIONS ADOPTED TO COMBAT LAND INFORMALITY

The challenges posed by informality in the land delivery system have been dealt with in different ways by various urban local bodies across the region. The researcher has only focused on institutional response options adopted. As a result the researcher has identified four institutional response options. The first one was no action (the laissez-faire approach) this is to mean basically in our study that the concerned bodies consciously or unconsciously ignore the problems of informality either due to lack of capacity to tackle the problem or failure to recognize the existence of the problem in terms of its scale, intensity and severity. The second one was bulldozing (destroying illegally built physical structures). The third option was use of law and courts (the application of law enforcement mechanism in dealing with land disputes). The last institutional response option adopted was negotiation strategy (all collaborative efforts that seek to bring all affected parties to the drawing board so that they can solve their problems in a mutual manner). These four institutional response options adopted were applied for similar studies by (West, 2000; Tanner, 2002; Abdulai, 2006). The existing institutional response options adopted in the study areas have not been responsive enough to deal with land allocation disputes. According to finding of this study about 60% of the sampled officials dismissed the institutional setup for dealing with land disputes as ineffective. A weak monitoring and evaluation system in urban areas was another significant institutional constraint.

### SUMMARY OF FINDINGS CONCLUSIONS AND RECOMMENDATIONS

#### RECOMMENDATIONS

In view of the research findings of this study, the key bottlenecks identified were mainly related to policy implementation rather than to the policy itself. Therefore, the researcher has recommended the following recommendations:

- To resolve the existing problem associated with the land informal settlements the city administration must have an open frequent discussions with the settlers.
- Government must address in real way the problems of housing of the poor. Among which condominium houses should be sold on long term (life time) basis at lower interest rates.
- Government officials of the program implementers (city administrator) should capacitate themselves via training to solve the problems in the area of efficient land provision.
- Since there is a professional and capacity gap in the municipality, it is expected from the government to appoint appropriate urban development professionals in the appropriate position.
- The government should encourage local real estate agents as an alternative house provider at lower price so that the poor can have access to house through subsidizing cost of inputs (free tax for cost of inputs).
- There should be a continuous public awareness creation program through various means of communications on the importance of the urban land lease policy

#### CONCLUSIONS

Our discussion has focused on assessing the implementation practices of urban land lease policy in selected senior cities (towns) in Tigray National Regional State. From the discussions of this study, it is observed that the key bottlenecks of urban land lease policy implementation practices. According to the findings of this study, the main key bottlenecks of the implementation practices of urban land lease policy in the study areas have been identified as follow:

- Lack of Public (Residents) Awareness on Urban Land Lease Policy  
There is still lack of awareness in the society on the urban land lease policy implementation and this demands further awareness creation.
- Lack of Empowered Properly (Financial, Equipment, and Manpower)  
The key bottleneck while implementing the program was that problems related to government official implementers themselves due the fact that they have limited knowhow on the implementation program. There were turnover of staffs mainly due to low salary payment and less qualified employees in study areas highly dominated by degrees, diploma and certificate.
- Lack of a consolidated land registry for urban areas: The documentation mechanism was too traditional and almost in all towns it was hard to get the necessary information.
- Lack of uniform land information system: As mentioned earlier most of the staff members were fresh or new to the work as a result there was no uniform flow of information to the beneficiaries which highly affects the implementation of the program.
- Regulation problems: There was less follow up by the government officials. Those who have already taken land via lease; they were not governed by the urban lease policy regulations for example to accomplish their buildings within the specified time. Due to these and other unmentioned problems, the

newly implemented and practiced urban land lease policy was and is facing obstacles while implementing in Tigray National Regional State. The overall findings of the study on the main determinant factors which were commonly associated to informal development have been identified and concluded as follow:

Land informality was highly exercised due to increasing level of poverty, unaffordable cost of land by the poor (high price of land in the formal market), high unemployment rate, population growth, high house rentals, limited supply of land, high cost of input materials for construction, increasing number of illegal land transfers, lack of awareness for the program (limited public participation in planning and urban services), lack of collateral security to borrow from financial institutions, illegal purchase of land, lack of low income estate agents, increasing rural-urban migration resulting in increased demand for land versus limited supply of land, corruption by some government officials (biasness) and very weak administrative control mechanisms to combat the informal settlers. However, the intensity of land informality was not the same in all cities of the region. Most of the informal settlers obtained their land purchasing from peri urban arable land of the farmers. Lastly, there are four institutional response options to combat land informality by government officials, the no action (the laissez-faire approach) response option was highly adopted almost by all towns officials (60%) followed by use of law and courts (30%); & negotiation strategy (9%). However; it is scarcely employed the fourth response option bulldozing (destroying illegally built physical structures) (1%).

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## AN ANALYSIS ON THE BOTTLENECKS AFFECTING TRANSPORT SECTOR ESPECIALLY WEIGHBRIDGES IN KENYA

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### ABSTRACT

*The study sought to investigate the bottlenecks affecting transport sector especially weighbridges. To identify measures and mechanisms necessary to maximize throughput, achieve a smooth cost effective and balanced flow of cargo at the weighbridge stations, to enhance effectiveness and efficiency along the Northern corridor. Strategies have been put in place through various stakeholders consultation with the aim of having a common stand on factors affecting the transport sector in Kenyan and the Northern corridor route and to view organizational policies that need to be employed in managing the current Weighbridges in Kenya to be able to attain an acceptable level of services to all stakeholders. The methodology involved Observation and interviewing of Key Senior Officers (5) at the Weighbridges, (2) at Mariakani, (2) at Athi River, (1) at Mtwapa and (10) Truck Drivers along the Northern Corridor Route and (5) Truck owners in Mombasa, the study also link the views with published and unpublished documentation available in the secondary data. Given the interest shown to the study by trucks owners and truck drivers, a lot of information was shared however there was little cooperation from Weighbridge Operations on sharing information. The findings shows that Government have a lot to do in terms of policies guidance and the need to invest in road and it accessories, cooperation from the mandated agencies is paramount towards and success to be achieved in the sector. The study thus discloses that there is a lot of interest by stakeholder towards any action done by Researcher or Government to understand the challenges facing the transport sector in Kenya.*

### KEYWORDS

Bottlenecks, Northern Corridor route, Weighbridge.

### 1.0 INTRODUCTION

The issues affecting the efficiency and effectiveness at the transport sector, and by extension, the road transport have been discussed in many fora and analyzed in many studies. The objective has been continuously to facilitate a conducive trade and logistics environment in Kenya and the other member states.

Continued delays at the weighbridges' has resulted in enormous losses to the private sector in the country, while affecting Kenya's dream of transforming into a regional business hub in Africa. Delays are not related to weighing operations only but other processes at and around the weighbridges such as escort goods.

### 2.0 LITERATURE REVIEW

#### 2.1 KENYA NATIONAL HIGHWAYS AUTHORITY

Kenya National Highways Authority (KeNHA), a state corporation established under the ministry of roads and mandated to manage, develop, rehabilitate and maintain national roads. KeNHA is responsible for ensuring adherence to rules and guidelines on axle load control as prescribed under the traffic act. The ministry of roads has the overall responsibility for Kenya's Axle Load Control policy as provided in the Traffic Act. There are seven weighbridges operated along the main northern corridor route between Mombasa and Malaba in Kenya. These are Mariakani (30km from Mombasa port), Athi river, (just outside Nairobi) Mai Mahiu, Gilgil, Eldoret, Bungoma and Amagoro (Malaba –Uganda border).Of the seven weighbridges along the Northern corridor, three are being managed by private sector. Mariakani and Gilgil are managed by SGS Kenya Limited, while the Athi River weighbridge is managed by Avery Kenya Limited. The Mariakani weighbridge is the only one along the corridor which is equipped with all the three types of weighbridges while all the rest are equipped with the single axle weigher. It is indicated that the weighbridges' at mariakani and Gilgil are ISO certified, with all the procedures and quality manual on the policy and operational aspects clearly documented for implementation.

Mariakani and Athi River weighbridges in Kenya are being upgraded to full traffic control centres; this includes installation of weigh in motion facilities on both sides of the road.

#### 2.2 THE NORTHERN CORRIDOR TRANSPORT AUTHORITY

The Governments in whose countries the core Northern Corridor road network traverses (Kenya, Uganda, Rwanda and Burundi), have established dedicated Road Funds in order to ensure availability of finance to ensure adequate and timely routine and periodic maintenance. However, there are still gaps in funding due to large demand, which compete for financing from the Road Funds. In respect of overloading, Kenya and Uganda the Highway Authorities are responsible for weighbridges. The exception is the Mariakani weighbridge (near Mombasa) in Kenya, which has been contracted to a private operator. If contraventions are detected, prosecution are instituted (there is no option to pay admission of guilt fines and vehicles are impounded until a court has issued judgment). There have been complaints of ineffectiveness of the system to curb overloading and the soliciting of "unofficial" payments at the weighbridges. However, improvements are being made or are planned. (Nathan Associates Inc. Arlington, Virginia, USA)

#### 2.3 ROAD AND BORDER TRANSIT TIME

The driving time is reflective of distance as destinations with longer distances have longer driving time. However, shorter destinations may take longer time if roads are in poor conditions, less facilitation of transport at border points, and more taken at weighbridges and road blocks. The routes on Beira and Nacala corridors seem to be affected by all these factors and therefore driving time is not consistent with increases in distance (Murithi A, Samuel M)

The representative from the Ministry of Roads, Engineer P C Kilimo While addressing one of the Transport stakeholders meeting acknowledged the progress made at the EAC level with respect to the harmonization of GVWs, emphasizing that the Ministry considered the issue of the railway and Port of Mombasa as critical areas for Kenyans development. He noted that it was important for the stakeholders to consider bold steps to ensure that the port continues to be competitive, including the whole issue of port 'commercialization' i.e. privatization. This would make it improve in service delivery and allow it to compete with other world class facilities.

## 2.4 QUOTED COMMENTS DURING ROAD TRANSPORT ASSOCIATION STAKEHOLDERS WORKSHOP

".....The problem at the Port is the conflict of interests between different Government agencies. There is need for a single trade facilitation agency to provide the required leadership....." Mr. Boaz Makomere, KIFWA, during the Stakeholders Workshop, 7th December 2011

".....The people who overload roads are not KeNHA, but Private sector, maintaining these roads cost money, which is not easy to come by....." Eng Samuel Ogege, KeNHA during the Stakeholders Workshop, 7th December 2011

".....to blame the current state of the roads on overloading alone is to stretch the truth. There are other factors, especially the quality of the road works....." Ms. Merianne Singo, Road Transport Association, Stakeholders Workshop, 7th December 2011

".....the Ministry considers the issue of the railway and Port of Mombasa as critical areas for Kenya's development....." Eng. Kilimo, Ministry of Roads, Stakeholders Workshop, 7<sup>th</sup> December 2011

".....the Government has no business doing business, the government should let the private sector engage in business while focusing on regulation....." Mr. Edwins Mukabanah, KEPSA, Stakeholders Workshop, 7th December 2011

## 3. IMPORTANCE OF STUDY

The study will help in establishing the bottlenecks affecting transport sector especially weighbridges and hence provide solutions on how to improve efficiency along the weighbridges.

## 4. STATEMENT OF THE PROBLEM

There have been several challenges affecting transport sector in Kenya and the region. Some of these challenges have resulted to inefficiencies by several government agencies leading to loss of business to competitors such as central corridor, Tanzania etc.

## 5. OBJECTIVES

The objectives of the study are to investigate the bottlenecks affecting transport sector especially weighbridges. To identify measures and mechanisms necessary to maximize throughput, achieve a smooth cost effective and balanced flow of cargo at the weighbridge stations.

## 6. HYPOTHESES

One of the leading factors affecting the transport sector according to stakeholders in Kenya is the weighbridge among others, weighbridge in Kenya contribute to larger portions of delay of trucks loaded with cargo, destined to interior part of Kenya and transit countries. This leads to poor truck turnaround hence leading to backlog of containers, congestion and delay of raw materials to industries in the region. The study will have gone to details to find out whether these factors which contribute to slow movement of cargo are the weighbridges.

## 5. RESEARCH METHODOLOGY

The research methodology applied was interview with a predetermined questionnaire, the response was as follows:

### 5.1 OFFICERS IN WEIGHBRIDGE OPERATIONS

NO.	TITLE	WEIGHBRIDGE	REMARKS
1.	Operations officer in charge	Mariakani	Positive feedback
2.	Operations officer ( equipments)	Athi River	Positive feedback
3.	Assistant officer (weighbridge)	Mariakani	Positive feedback
4.	Supervisor of weighbridge (mtwapa)	Athi River	Positive feedback
5.	Ministry officer of weighbridges	Ministry of Roads	Positive feedback

### 5.2 TRUCK DRIVERS

NO.	DESTINATION	REMARKS
5	Local drivers	Positive feedback
5	Transit drivers	Positive feedback

### 5.3 TRUCK OWNERS

NO.	NAME OF COMPANY	REMARKS
1.	Shiva transporters	Positive feedback
2.	Ocean transporters	Positive feedback
3.	Mombasa trucks	Positive feedback
4.	Hakika hauliers	Positive feedback
5.	Interplanet carriers	Positive feedback

Other methods applied from publishers and non-published quotes from workshops and seminars by different stakeholders on subjects relating to transport in the region.

## 6 RESULTS AND DISCUSSION

### 6.1 ROAD FUNDS

The Governments in whose countries the core Northern Corridor road network traverses (Kenya, Uganda, Rwanda and Burundi), have established dedicated Road Funds in order to ensure availability of finance to ensure adequate and timely routine and periodic maintenance. However, there are still gaps in funding due to large demand, which compete for financing from the Road Funds. In respect of overloading, Kenya and Uganda the Highway Authorities are responsible for weighbridges. The exception is the Mariakani weighbridge (near Mombasa) in Kenya, which has been contracted to a private operator. If contraventions are detected, prosecution are instituted (there is no option to pay admission of guilt fines and vehicles are impounded until a court has issued judgment). There have been complaints of ineffectiveness of the system to curb overloading and the soliciting of "unofficial" payments at the weighbridges. However, improvements are being made or are planned.

### 6.2 FRUSTRATION IN TRANSPORT SECTOR

An Interview with truck drivers revealed shows that at some weighbridge station, they are forced to wait until midnight the following day before proceeding with their journey after clearance affecting their truck turnaround, they spend between Sh15, 000 and Sh25, 000 from Mombasa to Busia. The money is to ensure easy passage through the weighbridges," a dejected Mr. Abdi, driver of a prime mover truck is a case in point.

On occasions senior police officers remain on duty beyond 11pm, and are told drivers work with loaders and pick-up owners to offload and ferry some goods to lighten the load, after which the lorries drive through the weighbridge, to be reloaded two or three kilometers ahead, it costs between Sh3, 000 to Sh4, 000 to have a pick-up a trucker through the weighbridge. However, for some drivers, they dread this tactic.

Mr. Clyde Mutotso, partner at Clyde & Associates, says about 50 per cent of total import freight costs are due to port expenses and for fighting transport hurdles. He quotes a study done by CPCS Transcom that states that truck drivers pay between 56,000 to Sh75, 000 to corrupt officers from Mombasa to Kigali in Rwanda.

It costs about Sh130, 000 to move a container from Dubai to Mombasa, but the cost doubles between Mombasa and Kampala.

### 6.3 IMPROVED VEHICLE OVERLOAD CONTROL SYSTEM

There are some areas which need improve on the system such as training assistance to assist member states to align legislation on vehicle limits with regional standards and to pass new regulations providing for administrative penalties. Outreach activities to sensitize the trucking industry to the implications of the new rules are useful to ensure smooth implementation of the administrative system and to secure the co-operation of industry – from an early stage – to improve compliance levels and training of weighbridge staff and law enforcement agencies.

### 6.4 ROAD MAINTENANCE IN KENYA

Roads are managed by Road Agencies/Authorities and maintained on contract for specific works defined such as routine maintenance; re-sealing/periodic maintenance. Finance is from Road funds and Government budget allocation. When there is no finance, maintenance is postponed, thus accumulating deferred maintenance and accelerated road deterioration. Overload control is managed by the Road Authorities in Kenya (KenHA) and Uganda via weighbridges. Rwanda and Burundi are in the process of establishing weighbridges at and similar vehicle overload control systems.

### 6.5 TRADE AND TRANSPORT FACILITATION

Several investments in the road sector to reduce the travel time and vehicle operating costs. Nevertheless, time gained through road construction can easily be erased by a proliferation of customs and police stops, both formal and informal, and even over-frequent use of weighbridges to protect the roads. Some interventions are designed to create a regional harmonized transit regime to realize the full trade benefits of the infrastructure investments.

Despite the agreement reached in 2008, there has been little progress by Member States in the region in amending their legislation to adopt the harmonized regional standards. Moreover, only Tanzania has introduced the agreed system of administrative penalties based on the recovery of actual economic costs of road damage. Rwanda and Burundi have no existing weighbridges infrastructure and are in the process of establishing them at the border points.

Experience elsewhere has highlighted that the efficacy of overload controls is improved when the trucking industry is fully cognizant of the content of the new rules and their application. Outreach activities to sensitize the trucking industry to the implications of the new rules are useful to ensure smooth implementation of the administrative system and to secure the co-operation of industry – from an early stage – to improve compliance levels. At the same time, training of weighbridge staff and law enforcement officers in the implementation of the new rules is also needed and to hold practical training sessions with weighbridge personnel and enforcement personnel.

### 6.6 CRITICAL FACTORS FOR SUCCESS

It would be critical that the relevant agencies, particularly the police, weighbridge authority and local governments, are committed to maximum free movement on the corridors. Without

An assessment on the performance of the Northern Corridor is affected by numerous operational, policy, procedural, and administrative issues. These are summarized below and strategies for addressing these causes of inefficiency are presented in Kenya, vehicles licensed for transit cannot carry domestic cargo and must use prescribed transit routes. This has the effect of many return trips being empty. Similarly in Tanzania, the Revenue Authority licenses trucks for transit or domestic with the same effect.

Domestic road transport policies in all states are aimed at deregulating market access, which has had some positive effects, but the lack of qualitative regulation has also had several undesirable consequences. These include low entry barriers leading to cut throat competition, low safety levels and poor service quality.

Existing overloading control strategy is aimed at achieving 100 percent inspections of all commercial vehicles. There is no targeted risk management approach and no incentive to encourage truckers to self-regulate. The high intensity of checking increases journey times and provides an added incentive for corruption. Differences in national limits complicate cross-border operations. There is also no regional consistency in terms of the frequency of checks as some states (Burundi, Rwanda) have no existing weighbridge infrastructure.

## 7. ANALYSIS AND FINDINGS

### 7.1 MOBILE WEIGHBRIDGE

Mobile weighbridges are quite new in Kenya. They are mostly used by the Road Authorities in Kenya (KenHA) and some companies used for personal use example a freight transport company using it to check their vehicles' mass before it goes on its journey.



### 7.2 PORTABLE WEIGHING EQUIPMENT (PWE)

PWE is made up of weigh pad scales which are able to be placed on a flat road surface. The load of the vehicle is obtained by summing up the axles' mass as each axle passes over the sensors. A number of different types of technology can be used as the weighing mechanisms such as: A spring can be used, bringing it back to its initial position by turning a crank. The resolutions correspond with the load measured. Hydraulic pads can also be used. They use pressure variable of a liquid contained in a coil to help measure the load.



### 7.3 WEIGH-IN-MOTION (WIM) SCALES

Weigh-in-motion scales are installed in national highways common in the Kenyan roads. This is done to provide traffic loading information, strategic planning, pavement design and for law enforcement.



### 7.4 AWARENESS BY THE BUSINESS COMMUNITY

According to Trade and Logistics Consultant, Mr. Gordon J Anyango, with regard to the Weigh bridges in Kenya play an important role within the broader regional framework of the Northern Corridor; there are seven (7) fixed weighbridges between Mombasa and Malaba. Three have been licensed to private sector operators. Mariakani and Athi River are busiest with delays of between 3-4 hours compared to others at 1-2 hours. Lack of awareness by the business community, more particularly transporters, on the consequences of overloading is a problem; There are two main reasons for non-compliant cargo loads (Deliberate overloading of trucks by transporters and overloading at the Port of Mombasa despite smart cranes); Overloading and corruption are related, with transporters keen on maximizing profits, being ready to bribe their way at the weigh bridges. Over 90% of trucks along the weigh bridges are however compliant. Poor law enforcement is another area of concern.

### 7.5 KEY EMERGING ISSUES

There were a total of 13 weigh bridges in Kenya, with 12 being fully operational. 3 of these are under private managers. The desire of KeNHA is to privatize all the weighbridges. With regard to improvements at the weighbridges, KeNHA has begun installing new scales to address the problems of discrepancies in weights; installing automated systems; unless there is a breakdown, tickets are not manually generated. Also Public Display Units – been installed conspicuously, driver can see the whole weighing procedures. Improving the facilities ongoing – *Mtwapa, MaaiMahiu, Gilgil*- 2 way bridges will be ultra –modern (*rolling out contracts for Mariakani and Athi River*). When funds allow, this will be replicated at Webuye, Gilgil and Eldoret. KeNHA has installed weigh in motion scales at Athi River, Mariakani, in process of installing this at MaaiMahiu and Gilgil. Compliant trucks will move through green channel without any stopping. Installing and commissioning of 22 airbags for multi decks scale easing congestion at station. Currently, the installed CCTV cameras are not able to pick the number plates; hence players are still manipulating process. Soon cameras will pick all data for all the trucks. Construction of an additional lane at Mariakani – 80 million shillings; to construct auxiliary lane approach to weigh bridge station and installing new static scales; Fencing of the weighbridge station to preclude idlers and construction of lay by's at Malaba, Mai Mahiu and Busia and the establishment of weighbridge Oversight Committee. With regard to corruption, approximately 30 staff have been fired at Athi River alone, during the joint sting operations, conducted in partnership with the Ethics and Anti-Corruption Commission. Cooperation with other partners for vehicles not being kept at weighbridges unnecessarily. KeNHA working with transporters around Nairobi to encourage self regulation.

## 8. RECOMMENDATIONS

The government of Kenya to consider under their Road Transport Board to have a representative of Transport Sector or a nominee from Kenya Transport association (KTA). There's a need for the government of Kenya to standardize impunitive measures. There is need for the government to improve on road signs.



## 9. CONCLUSION

The hurdles faced by the traders using the Northern Corridor to convey their goods in transit extend beyond Malaba. For implementing any agreed policy requires the cooperation of the different agencies both public and private.

Notwithstanding the fact that the problem of long queues at weighbridges, the major cause is associate with lack of training both to the truck drivers, machine Operations and regulatory agencies on the importance of their contribution in the performance in the transport sector. Furthermore, the process is subject to risk exposures such as customs business system failures, lack of agency fees by the drivers to enlist the services of customs/clearing agents and failure by all parties involved in the clearance process to work 24/7. Further it is recommended that more studies need to be done with a view to establish the challenges leading to Non Performance of 24/7 by state agencies whereas there is directive by the Government to implement it.

## 10. SCOPE FOR FURTHER RESEACH

In future there is a need to research using other parameters which have not been used in this study such as government officials in Kenya, Uganda, Rwanda and Burundi.

## 11. ACKNOWLEDGEMENT

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**SUPPLY CHAIN MANAGEMENT FOR AGRICULTURAL PRODUCTS**

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**ABSTRACT**

*The agricultural products supply chain means the supply and demand network involving the process of agricultural products or service provided to the final consumer, which is the composed of farmers, manufactures, wholesale dealer, retailers and the final consumer in the upstream and downstream. Therefore, to improve the quality and safety of agricultural products is very important and significant to speed up the process of changes in agricultural growth and protect the safety of urban & rural consumption. Marketing of agricultural products in India takes place through agricultural mandis, which are regulated by the Agricultural Produce Marketing Committee Act (APMC Act). The produce is brought to these mandis by farmers, where a long chain of intermediaries is involved.*

**KEYWORDS**

supply chain management, agriculture products.

**INTRODUCTION**

upply chain management is a hot topic of today's domestic and foreign research, agricultural supply chain management is one of the important research directions. It also becomes one of the most powerful competitive tools of agricultural production, processing and distribution companies. With the step up of agricultural trade liberalization and globalization, it's more and more complex to product initial agricultural products to end – users' management. It's more strict in the safety and quality of agricultural products increasingly.

Agricultural products supply chain is a demand supply network comprised upstream and downstream farmers, manufactures, wholesalers, retailers and ultimately consumers, which can afford product and service to ultimately consumers.

The farmers also lack real time information about consumers, market demand and prices and hence are prone to more exploitation by existing intermediaries in the supply chain.

**MEANING OF SUPPLY CHAIN**

Marketing a channel of distribution beginning with the supplier of materials or components, extending through a manufacturing process to the distributor and retailer, and ultimately to the consumer.

**DEFINITION OF SUPPLY CHAIN**

"A supply chain is the alignment of firms that bring products or services to market."

**SUPPLY CHAIN MANAGEMENT**

Supply chain management is a powerful tool through which producers in developing countries and emerging economies can access market information and knowledge.

The advantages of supply chain management are numerous, like the reduction of product losses, increase in sales, reduction of transaction costs, a better control of product quality and safety and the dissemination of technology, capital and knowledge among the chain partners.

Supply chain management tools have been developed and implemented throughout the chain to guarantee optimal chain performance. Social and cultural differences between the chain partners, as well as hidden agendas, can lead to slow down of chain performances. The cases also indicate that certain aspects of chain development (e.g. food safety and social accountability) touch upon the responsibility and mandates of both public and private agents. Public-private partnerships are therefore indispensable in these areas.

**DEFINING AGRICULTURE**

**Agriculture** includes households engaged in farming, herding, livestock production, fishing and aquaculture. Also included are other producers and individuals employed in cultivating and harvesting food resources from salt and fresh water and cultivating trees and shrubs and harvesting non-timber forest products – as well as processors, small-scale traders, managers, extension specialists, researchers, policy makers and others engaged in the food, feed and fiber system and its relationships with natural resources. This system also includes processes and institutions, including markets that are relevant to the agriculture sector.

**AGRICULTURAL MARKETING**

The agricultural marketing is totally unorganized. However, commodity wise analysis does show some kind of rider but there also the exact dealings are for from satisfactory. Agricultural marketing is characterized by movements of commodities through a series of different markets in which suppliers are increasingly concentrated and then dispersed. Most commodities first move from a large number of small firms to a smaller number of local markets. From there the goods are moved to regional or central markets. The final outlet is the wholesale dispersion market from where ultimate consumers buy their requirement.

**MARKETING OF AGRICULTURAL PRODUCTS**

Marketing of agricultural products in India takes place through agricultural mandis, which are regulated by the Agricultural Produce Marketing Committee Act (APMC Act). The produce is brought to these mandis by farmers, where a long chain of intermediaries is involved. The price of the commodity is decided through behind – the –scene auctions by the middlemen who function as intermediaries. During the peak season, the farmer sometimes has to wait for many days to get his produce unloaded. These mandis lack basic marketing infrastructure such as grading, standardization and storage facilities. In the process, the quality of the produce deteriorates. It has been found that post-harvest losses in mandis occur primarily due to lack of marketing infrastructure and storage facilities. After the produce gets unloaded, the farmer is at the mercy of the middleman, as they are the ones who decide the price of their produce.

The farmer has to sell at whatever price is decided by these intermediaries. There is a lack of transparent weighing facilities in the mandis. All these constraints lead to inefficiencies in the value chain and result in a very small monetary share for the farmer. The efficiency of a supply chain depends upon the extent to which both our backward as well as forward linkages are integrated with all the functions in the supply chain so that all the stakeholders involved are benefitted. The economic development of any nation is basically dependent on sufficient agricultural production and its proper distribution. Agricultural marketing comprises all the operations involved in the movement of food and raw materials from the place of production to the place of consumption.

**(A) OPERATIONS INVOLVED IN AGRICULTURAL MARKETING**

In modern marketing, the produce has to undergo a series of transfers' or exchange from one hand to another before it finally reaches the consumer. It comprises the process of concentration, equalization and dispersion of goods or produce. Concentration pertains to operations concerned with the assembling and transport of produce from the field to a common place or market. The produce may be taken direct to the market after it is harvested, or may be stored on

the farm or in the village for varying periods prior to its transport. It may be sold as obtained from the field or cleaned, graded, processed and packed, either by the farmer or village merchant before it is taken to the market. At the market, the produce may be sold by the farmer direct to the consumer or more usually through a commission agent or a broker. It may also be purchased by traders, wholesalers or retailers. The transaction may be carried out by direct negotiation or through middlemen, by barter or by paying cash. The transactions take place at one or more levels, in the primary, secondary and or terminal markets. Equalization mainly relates to the carrying forward of produce/goods for future distribution. Dispersion involves the operation of wholesaling and retailing at the terminal market. In the case of goods/produce meant for export, additional operations such as testing, analyzing and shipping are also involved at the terminal or export market.

#### (B) SETTING UP OF LEGAL ACTS

The Government of India passed the Agricultural Produce (Grading and Marketing) Act, 1937 to ensure a fair return to the farmer after taking into consideration the quality of his produce. The "Agriculture Produce Market Committee (APMC) Act was brought in a number of States to protect the farmer against exploitation and also to ensure a fair and competitive price for his produce". The APMC has been amended recently to update the provisions.

Agriculture markets, which are efficient and competitive, are important for the overall growth in agriculture and broad based rural development. Besides bringing agricultural products to the consumers, domestic as well as international, well-functioning agricultural markets faster growth in non-farm sector also by expanding opportunities for value addition and increased employment. Development, in the global trade of agro products would have an impact on all the aspects of Indian agriculture. We have a wide range of diverse agro ecological conditions making it possible to grow different crop type, including horticulture, in all parts of the country. As the development of quality standards compatible with 'WTO regime is an important aspect of agri-business, organic farming is going to be key business area in agriculture with participatory role of farmers in new venture.

#### MARKET STRUCTURE FOR AGRICULTURAL PRODUCTS

In order to improve the marketing arrangements for agricultural products, one needs to understand the channels that are currently used for trade. In fact, the majority of small-scale agricultural producers are consuming their production to large extent within the household. The remaining surplus production can be sold either to the local markets or to national markets depending on the products and producer's access to the market. Four types of markets can be characterized as the main for transaction: the local village markets, regional markets, national markets, and export markets.

##### LOCAL VILLAGE MARKETS

Local markets are small and cater for a limited number of near-by households. The markets are informal and emerge at cross-roads or small concentrations of households to facilitate the exchange of products among local farmers using commonly money as a means of exchange. The traders at the markets are farmers themselves with well-established small circles of customers. The access to the local market is easy but the supply at the market is very limited and fluctuates according to the season. Thus these local markets cannot be relied upon to guarantee food security during shortage of food in the local area.

##### REGIONAL MARKETS

Regional markets are located in the centre of the region or in larger district capitals providing a variety of food products as well as other non-food items, such as spare parts, second-hand clothes and electrical appliances. These markets are often the largest markets available to the consumers and what the regional markets do not supply, the consumers go without. The supply at the regional market is more reliable than at the local markets even though temporary shortage of goods may arise during the year. The producers may come to the markets to sell their products but most often the trade is run by professional traders who collect the products from the local farmers (either at the farm gate or at the market) and who come to the market every day of the week. The markets are well organized and regulated, and the traders must often register to be granted permission to trade at the market. There is also a daily fee of a couple of hundred shillings to be paid to the respective market organization for cleaning and security. Traders in regional markets commonly collect goods from a large geographic area including other regional markets, local small- and large-scale producers, as well as collection points in food surplus areas. The traders at the markets can be classified into large, medium and small-scale traders depending on the size of the business.

##### NATIONAL MARKET

The national market, as defined in this study, collects products from all regions to be sold. Even though the national market, in a broader sense, can refer to trade between the regional markets, the poor infrastructure between the regional markets is currently limiting such transactions. Most products are traded they would be consumed in other regions, which emphasizes the importance of main market and allows the narrower definition of the national market to be used. The national market is dominated by large-scale actors working with smaller-scale trade facilitators. The market can be characterized by a large number of small-scale producers and local traders, a few large-scale traders who are able to finance transport and marketing costs, and again a large number of small-scale retailers and final customers. Due to the bottleneck of capital required to buy and transport large quantities of goods, the national market is more limited in access than the local and regional markets. Still, the link from the national market of food crops to the international market of processed food products needs developing to ensure the dynamic nature of the market, and possibilities for expansion in the future.

##### EXPORT MARKET

The export market for cash crops in this study refers to marketing of non-traditional crops like cashews and coffee, which have a very limited domestic market. Even though cross border trade of traditional crops like maize to the neighboring countries in East African Community (EAC) and Southern African Development Community (SADC) is an important source of livelihood for households living close to the boarder, and this trade has implications to poverty and food security in the border regions, traditional exports constitute a small amount of total export earnings in the country. The crops sold to the export market have often only a limited domestic market and thus the goods are traded through different channels than the domestically consumed goods. The export trade is dominated by large-scale traders as is the national market, with the distinction that at the export market the traders are usually foreign dealing with unconstrained supply of capital and considerable market power to affect the prices.

#### FEATURES OF AGRICULTURAL PRODUCTS

- 1. Perishable Products:** The agri-products are perishable in nature. It requires speedy marketing activities. The storing and warehousing facilities in villages are primitive in nature and they are not capable of preserving the products over a long period.
- 2. Small-scale Production:** Indian farmers own very small plots of land and the production is just enough to meet the family needs. In the U.S.A., the own land owns hundreds of acres. There are agricultural operations in Russia and China. Collective farming had been introduced in India also. Due to small holdings, the production tends to be small. The cultivators are scattered all over the country.
- 3. Unorganized Markets:** The markets of agri-products are unorganized and manipulated by number of middlemen. The farmers are often made to sell their produce at a price offered by the middlemen. According to Central Agricultural Marketing Department of India, wheat cultivator gets only Rs. 0.23 out of each rupee paid by the consumer.
- 4. Inelasticity of Demand:** Agri-products are essentials. The price changes do not affect in the similar manner the changes in the demand. Although during the harvest season abundant supply causes a fall in price. The Food Corporation of India and other agencies produce excess supply to keep a buffer stock. These stocks are released when shortage of supply is felt in the market.
- 5. Malpractices in the Market:** Due to lack of grading and standardization, the agri-products are often adulterated. Grading of commodities has not been very satisfactory. In case of agri-products, prices are often decided by intermediaries and not by the producer.

#### AGRICULTURAL SUPPLY CHAINS

"Supply chain thinking encourages a system-wide view of the chain—focusing as much on the linkages between technologically separable segments as on the management of processes within those segments" (King and Venturini 2005,p. 19). Thus, an agricultural supply chain encompasses all the input supply, production, postharvest, storage, processing, marketing and distribution, foodservice, and consumption functions along the farm-to-fork (i.e., production-to-

consumption) continuum for a given product (be it consumed as fresh, processed, and/or food-service-provided), including the external enabling environment. These functions typically span other supply chains, as well as geographic and political boundaries, and they often involve a wide range of public and private sector institutions and organizations.

Agricultural supply chain risk assessments should be designed to illuminate the risks to the achievement of these and other performance objectives by farms, firms, and the supply chain as a whole.

Supply chain participants can be located within or outside national borders. Even within national borders, participants and their activities can be spatially dispersed. Some participants and services are specialized, whereas others are involved in several different supply chains. Support service providers can be active in both the public and the private sectors. Logistical support services include transport, communication, and information technology. Technical support includes not only a range of research and business development services, but also technical assistance and financial services. In the global economy, support service providers and the services themselves can easily cross national borders.

The agri-food system also includes farmers and a diverse range of firms, including backward-linked input suppliers and forward-linked intermediaries, processors, exporters, wholesalers and retailers.

### AGRICULTURAL SUPPLY CHAINS IN INDIA

Agricultural supply chains involve both backward as well as forward linkages among all the stakeholders i.e. input companies, government institutions, market intermediaries, consumers and farmers. At the back end of the supply chain are private sector and public sector companies that manufacture, trade and export inputs like seeds, pesticides, fertilizers, farm machinery, etc. for the farmers' use. Information is also counted as an important input these days. Farmers need to have information on farming practices, weather, sowing and harvesting time, pest management, fertilizer use, etc. farmers need information on new products and brands launched by these companies. Information is the most important input which can ensure the availability of all other required inputs at the right place and right time. Presently, due to the lack of proper information on inputs, advisory services, and weather and climate information services, farmers are unable to align the quality and price of their products to the market standards.

Agricultural production as observed in developing countries is affected by weather and climate which dictate outputs. We usually observe long spells of drought; torrential rainfall and flooding could seriously disrupt production and lead to fall in supply of agricultural commodities. Agricultural products in most cases require special handling. Agricultural products are often too perishable as seen in fresh vegetables, eggs, yam, potatoes, bananas, fresh milk etc. In addition, some of these products are bulky e.g. yams, potatoes, oranges etc. and this pose transportation challenges. Hence, marketing of agricultural products involve a large number of people in the channel of distribution which include assemblers, transporters, bulk breakers and retailers (Yuba, 2007). The degree of involvement of middlemen in the trade channel is usually, implicitly or explicitly, explained by a functional argument. In other words, the role of middlemen is determined by their economic value for sellers and buyers.

### CONCLUSION

From the angle of the agricultural product supply chain, this article has discussed the development patterns of the agricultural product aims at existing agricultural products logistics development including high cost, low efficiency, low socialization and marketability degree, lacking talented persons, and impeded information. Hence, marketing of agricultural products involve a large number of people in the channel of distribution which include assemblers, transporters, bulk breakers and retailers (Yuba, 2007). The degree of involvement of middlemen in the trade channel is usually, implicitly or explicitly, explained by a functional argument. In other words, the role of middlemen is determined by their economic value for sellers and buyers.

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