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**MAHATMA GANDHI NREGS: TOWARDS EMBRACING FINANCIAL INCLUSION****V.AMBILIKUMAR****HEAD****DEPARTMENT OF BUSINESS ADMINISTRATION & MANAGEMENT  
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PANANGAD****ABSTRACT**

*The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) which has come into force with effect from February, 2006 was a novel step towards eradication of poverty in India. The scheme aims to strengthen the livelihood security of rural population by providing at least 100 days of guaranteed wage employment to every household in a financial year. A study was conducted in Alappuzha District of Kerala, the southern-most state in India, with the specific objective of assessing the impact of the scheme on economic empowerment of marginalized groups and women. The study found that scheme helped to open the door of financial institutions for the poor and embraced the beneficiaries into the ambit of financial inclusion and financial literacy. Nearly 20 per cent of the respondents were able to save up to 25 per cent of their wage earnings. This is really a remarkable achievement, particularly considering the fact that some of the workers were forced to borrow money to meet their livelihood, before they become beneficiaries of the scheme. The apparent social benefit is a reduction in the level of indebtedness among the beneficiaries.*

**KEYWORDS**

Financial Inclusion, Mahatma Gandhi NREGA, Right to Work, Rural Employment, Women Empowerment.

**INTRODUCTION**

The Government of India has passed the National Rural Employment Guarantee Act (NREGA) in September 2005 and has come into force with effect from February, 2006 initially in 200 districts and later on extended to all the rural districts of India from 2008-09. It addresses mainly the rural poor and their fundamental "right to work" with dignity. It also empowers Grama Panchayats to play a proactive role in the implementation of the scheme through Grama Sabhas, social audits, participatory planning and other means. The scheme is to strengthen the livelihood security of rural population by providing at least 100 days of guaranteed wage employment to every household in a financial year. The work guarantee can also serve other objectives like generating productive assets, protecting the environment, empowering rural women, reducing rural to urban migration, fostering social equity, and so on. In 2009-10, the scheme was renamed as the Mahatma Gandhi NREGA (MGNREGA).

MGNREGA is an important step towards realization of the "right to work". It aims at arresting out-migration of rural people in search of employment and at the same time enhance their livelihood on a sustained basis, by developing the economic and social infrastructure in rural areas. In Kerala, the scheme was implemented with effect from 5th February 2006; initially in two districts, viz., Palakkad and Wayanad and subsequently extended to all districts of the state.

**REVIEW OF THE LITERATURE**

MGNREGA is the first legislation that compels the state to provide a social safety net for the poorest people of this country and seeks to address the urgent issues of hunger and rural distress that afflict large parts of India (Lakshman, 2007). Few studies were carried at different parts of the country with a view to know the impact of the scheme in the rural sector. Financial inclusion was one aspect that was referred by some studies. In this connection, Sudarshan (2011) found that MGNREGS wages that are paid through banks encourages saving among the rural people and some percentage is left in the account as savings. IRMA (2010), in its study conducted in Sikkim found that opening of bank account for this purpose had a positive impact on the self-confidence and empowerment among the rural women. After analysing the socio-economic profile of beneficiaries, Jos Chathukulam and Gireesan (2007), in their report, have pointed out that the scheme has reached the target group. The results of NREGS on the rural poor in elevating the income of beneficiary household were easily visible unlike previous wage employment programmes.

**IMPORTANCE OF THE STUDY**

In Kerala, the Mahatma Gandhi NREGS was initially implemented in two districts viz., Palakkad and Wayanad, and subsequently (in 2008) extended to all other districts. Considering the importance and scope of the scheme it is necessary on the part of the planning authorities to undertake periodical evaluation of the scheme and to initiate corrective steps, as and when required.

## STATEMENT OF THE PROBLEM

Studies have already been conducted at different parts of the country in connection with the Mahatma Gandhi NREGS. Most of these studies have also traced out the issues prevailed in connection with its implementation. These studies also have put forward suitable suggestions for solving the problems found or to improve the efficiency of the scheme. Still, there are grievances from the part of the beneficiaries, non-beneficiaries and officials in connection with the efficient implementation of the scheme. Most of the studies conducted have brought out the issues prevailing generally, in connection with the Mahatma Gandhi NREGS. However, studies specifically focusing the issues in connection with the implementation of the scheme in the fisheries sector are lacking or limited. It was in this background the government of Kerala, through the State Institute of Rural Development, has decided to conduct a study with a view to evaluate the impact of the scheme in the fisheries sector of Alappuzha district. Financial inclusion was one important aspect covered under the study.

## OBJECTIVES OF THE STUDY

The study was conducted with the important objective of evaluating the effectiveness of the programme, identification of issues relating to implementation, suggesting possible remedies and documenting success stories for replication of good practices. Assessment of the influence of the programme in poverty reduction, social and economic empowerment and empowerment of marginalized groups and women was one of the specific objectives of the study.

## MATERIALS AND METHODS

In view of the objectives of the study, factors such as awareness level of availability of jobs, wage payment, level of income, savings habits, nature of expenditure, social relationships, attitude of the beneficiaries, and non beneficiaries, availability of banking facilities, etc., were considered. Among the 14 revenue districts of the state, Alappuzha District is the smallest one in terms of area but having the highest density of population and the longest coast line among the districts. This is the only district in Kerala that has no high lands and forests. Paddy and coconut are the major crops cultivated in the district. Apart from agricultural works, people of this district are also engaged in activities such as making of coir products, fishing, prawn peeling, etc. The study was carried out in both coastal and inland areas of the district.

The objective of this paper is to project the role of the scheme in strengthening the benefits of financial inclusion among the rural people.

## SAMPLING DESIGN

There are a total of 73 Grama Panchayats spread over the 12 Block Panchayats (Government of Kerala, (2011) of Alappuzha District. A sample of 20 Grama Panchayat was selected from these 73 Panchayats in such a way that the sample consists of two best performing Panchayats, two least performing Panchayats and one Panchayat with maximum SC population. These five GPs were selected using purposive sampling and the remaining 15 Panchayats were selected using Simple Random Sampling Design.

## DATA COLLECTION

The data required for the study were collected from the following three categories of respondents viz., Beneficiaries, Officials and Non- Beneficiaries. Both primary and secondary data were used for the study. Total 1021 respondents were interviewed for the purpose of collecting data. This consisted of 600 workers, 100 mates, 140 officials and 181 non-beneficiaries. The opinion and views of various categories viz., beneficiaries, non-beneficiaries and officials were also collected by organizing Focused Group Discussions (FGDs) in all the selected panchayats. Data pertaining to the years 2011-12 and 2012-13 were collected.

## RESULTS

The results of the study pertaining to the current topic are discussed herein. The study found that, during the year 2012-13, a total amount of Rs.139.46 crores was distributed towards wages under the Mahatma Gandhi NREGS in Alappuzha district. Out of this, an amount of Rs.134.53 crores (96.46 per cent) was received by women beneficiaries and the balance by men in the form of wages during the year. Obviously, this indicates the encouraging impact of the scheme on the economic and social empowerment of rural women.

Among of the beneficiaries 76 per cent belong to the BPL category and the remaining 24 per cent is from the APL category. Thus, it is clear that majority of the beneficiaries of this scheme are from the weaker sections, who are struggling to avoid starvation. This indicates the fact that Mahatma Gandhi NREGS in the district could bring a large section of the rural poor under the umbrella of economic empowerment. Thus it is imperative that bringing all the poor under the scheme is the first step towards poverty alleviation.

The categorization of the respondents showed that 75.71 per cent is from backward classes (ie., OBC- 57 %, SC- 18.14 % and ST -0.57 %). This leads to the conclusion that socially backward classes are the major beneficiaries of the Mahatma Gandhi NREGS in Alappuzha. It means that, the scheme is moving in the targeted direction, by strengthening the livelihood of the marginalized and weaker sections.

The annual family income (after joining the scheme) of 76.33 per cent of the workers was below Rs.50,000. In the case of 22.33 per cent workers, it was between Rs. 10,000 and Rs. 20,000. The annual family income of 11.5 per cent of the workers was below Rs. 10,000. The fact that 76.33 per cent of the workers belong to lower income group, leads to the conclusion that the benefits of the Mahatma Gandhi NREGS mainly reached the poor section of the community. Thus, the scheme contributes much to the removal of poverty among the rural poor in Alappuzha district.

## FINANCIAL INCLUSION

The Rangarajan Committee on Financial Inclusion, Reserve Bank of India, (2008), defined financial inclusion as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost. Accordingly, financial inclusion occurs when an individual avails an array of financial services viz., receipt of transfer payments, savings, leases, insurance, short term credits (eg. credit-card, over-draft) and remittance facilities. Though all services including credit, savings and insurance offered by the banks and other financial institutions are taken as the benchmark, more weightage is given to credit segment. Financial inclusion may be interpreted as the ability of every individual to access basic financial services which include savings, loans and insurance in a manner that is reasonably convenient and flexible in terms of access and design and reliable in the sense that savings are safe and that insurance claim will be paid with certainty (Mor,N and Ananth, Bindu,2007). In India, the focus of the financial inclusion at present is more or less confined to ensuring a bare minimum access to a savings bank account without frills to all. However, having a current account/savings account on its own, cannot be regarded as an accurate indicator of financial inclusion (Vallabh and Chatrath, 2006).

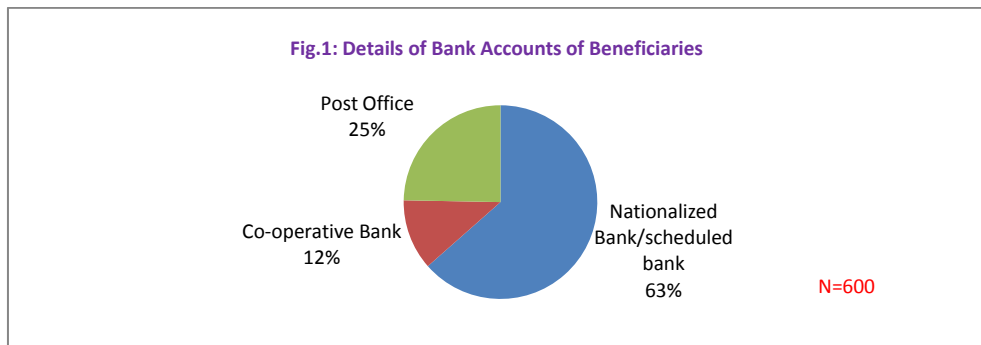
Therefore, having a savings account is only a starting point for financial inclusion. Thus, financial inclusion, through bringing the poor under the umbrella of a financial institution, is necessary today to accelerate the process of development. Now, in order to avail financial benefits offered by the Central and or State government, membership in a financial institution becomes essential. The Mahatma Gandhi NREGS insists the beneficiaries to have membership in banks or post office for the distribution of wages. The govt. of India has made it compulsory with the twin objectives of (i) ensuring transparency so as to reduce the chances of embezzlement and fraud, and (ii) introducing the marginalized groups and poor to the financial institutions and eventually access other financial services. Facilities to open 'no-frills' account and access to banks through business facilitators and the most recently announced 'Jan DhanYojana' of the Central govt. are also the steps to ensure financial inclusion.

The degree of financial inclusion is measured differently by different authorities. Thorat (2007) used the percentage of adult population having bank accounts as a measure of financial inclusion in the payment system rather than on the basis of the number of accounts opened with banks or post offices. He also used the percentage of adult population having loan account as a measure of financial inclusion in the fund credit market. Chattopadhyay (2011) used a multi-dimension index which was developed after considering the three dimensions viz., banking penetration, availability of the banking services and the usage of banking system.

With a view to know about the level of financial inclusion among the beneficiaries of the Mahatma Gandhi NREGS, details relating to their membership in financial institutions were collected. The information gathered from 600 respondents show that 63.5 per cent have opened account with nationalized or

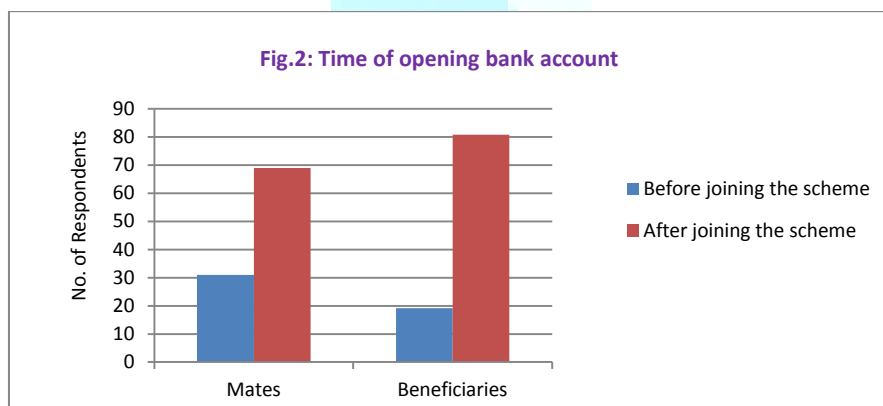


scheduled banks, 24.7 per cent with post offices and the remaining 11.8 per cent with cooperative banks. The GP-wise details show that all or above 90 per cent of the respondents from Mannar, Arattupuzha, Thuravoor, Krishnapuram, Mulakuzha, Thrikunnapuzha, Pallipuram, Thazhakar, Bharanikavu and Veliyanad have account with nationalized or scheduled banks. All the respondents from Thaneermukkom have account with post office. The distribution of beneficiaries according to membership in financial institutions is shown in fig.1.



Source: Compiled from the primary data

The study found that out of the 600 workers, 80.8 per cent have opened an account only after joining the Mahatma Gandhi NREGS. The remaining 19.2 per cent had a bank account before becoming beneficiaries of the scheme. Among the mates (100 Nos.) covered under the study, 69 per cent have opened account for the purpose of availing the benefits under the Mahatma Gandhi NREGS. Fig.2 gives a more clear picture of the position;



Source: Compiled from the primary data

**NATURE OF OPERATION OF BANK ACCOUNT**

It was also found that in 90.3 per cent cases, the bank/post office account is operated by the beneficiaries themselves. Only in the case of 1.8 per cent beneficiaries, the account is operated by their spouse. However, it was noted that 88 per cent of the beneficiaries reported difficulties in operating the ATM. The details are shown in Table 1.

**TABLE 1: NATURE OF OPERATION OF BANK ACCOUNT**

Sl.No.	Person Operates Bank Account	No. of respondents	Per cent
1	Self	542	90.3
2	Spouse	11	1.8
3	Children	9	1.5
4	Others	38	6.4

Source: Compiled from primary the data

Thus, is obvious that majority of the beneficiaries of the Mahatma Gandhi NREGS opened an account with a financial institution as a result of joining the scheme. Besides, a large majority of beneficiaries (ie.,90.3%) operate their account themselves. The beneficiaries also used to keep at least a small portion of their income as savings and thus the scheme inculcated the habit of thrift among the poor. Further, the respondents also opined that dealings with banks helped them to improve their awareness about different services offered by the banks. All these imply that the Mahatma Gandhi NREGS has highly succeeded in increasing the level of financial literacy and promoted financial inclusion of the rural poor in the State.

**IMPACT ON SAVING HABITS**

Generally, the rural poor find it difficult to save any amount for meeting their emergencies. This results into high level of indebtedness among them. The study revealed that 72.4 per cent of the workers and 71 per cent of the mates have withdrawn the full amount of the wages as soon as it is credited to their account. The status of savings among the workers and mates is given in the table 2 given below:

**TABLE 2: DETAILS ABOUT SAVINGS OUT OF MAHATMA GANDHI NREGS WAGES**

Sl. No.	Level of Savings	Workers		Mates	
		Nos.	Percentage	Nos.	Percentage
1	Nil	434	72.4	71	71
2	Savings upto 25%	113	18.8	20	20
3	Savings between 25 and 50%	51	8.5	9	9
4	Savings between 50 and 75%	2	0.3	0	0
	Total	600	100.0	100	100

Source: Compiled from primary data

As shown in table 2, only about 9 per cent of the beneficiaries save up to 50 per cent of their earnings from the scheme. In the case of 18.8 per cent of the workers and 20 per cent of the mates, the extent of savings is 25 per cent. This is really a remarkable achievement, particularly considering the fact that some of the workers are forced to borrow money to meet their livelihood, before they become beneficiaries of the scheme. (For instance, of the total respondents 13.8

per cent were borrowing money for meeting various purposes including household expenses (3%), hospital expenses (2.3%), before joining the scheme ; whereas, this has halved after joining the scheme.)

The study amply indicates that the Mahatma Gandhi NREGS could make a positive impact on the financial inclusion, habit of thrift and financial literacy of the rural poor. The apparent social benefit is a reduction in the level of indebtedness among them.

## CONCLUSION

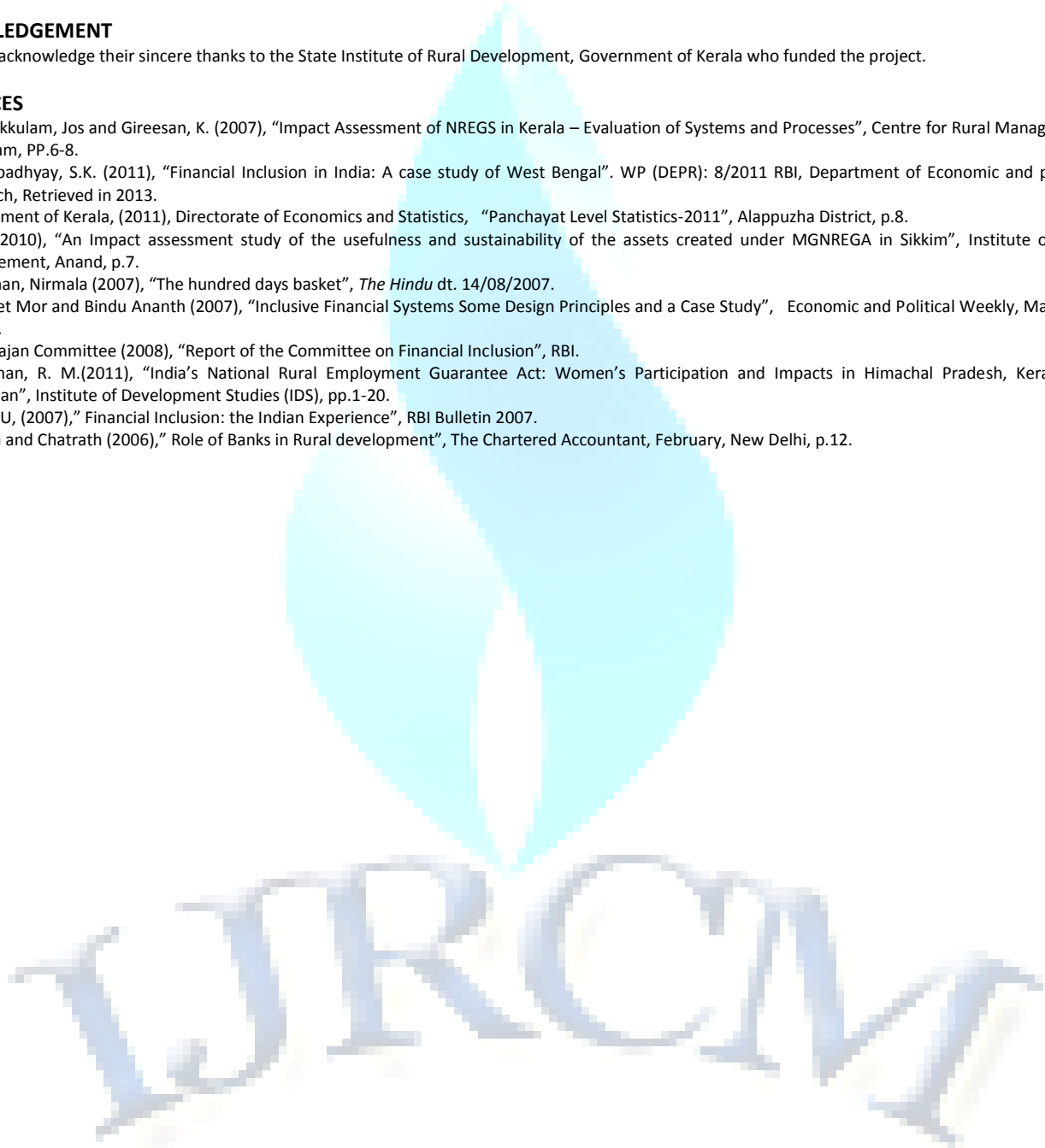
The Mahatma Gandhi National Rural Employment Guarantee Scheme addresses mainly the rural poor and their fundamental "right to work" with dignity. The scheme is to strengthen the livelihood security of rural population by providing at least 100 days of guaranteed wage employment to every household in a financial year. One of the significant impacts of the scheme is that it opened the door of financial institutions for the poor and embraced the beneficiaries into the ambit of financial inclusion. From the foregoing discussions, it is imperative that the furtherance of the scheme will definitely empower the rural India. Now, in order to avail financial benefits offered by the Central and or State government, membership in a financial institution becomes essential. The Mahatma Gandhi NREGS insists the beneficiaries to have membership in banks or post office for the distribution of wages and hence it will harmonize the financial inclusion target of the Government at a rapid rate.

## ACKNOWLEDGEMENT

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## PROBLEMS AND PROSPECTS OF FRUIT PROCESSING INDUSTRY: A STUDY WITH REFERENCE TO CHITTOOR DISTRICT OF ANDHRA PRADESH

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### ABSTRACT

*The food processing sector is of the great importance to India's development, for it establishes a vital linkage and synergy between the two pillars of the economy-Industry and Agriculture. The enormous growth potential of this sector can be understood from the fact that food production in the country is expected to double in the next 10 years, and the consumption of value-added food products will also correspondingly grow. The growth of this industry will bring immense benefits to the economy, raising agricultural yields, enhancing productivity, creating employment and raising life-standards of a large number of people across the country, especially those in rural areas. This paper attempts to study about problems encountered by the Fruit Processing Units and to assess their future prospects in Chittoor District of Andhra Pradesh.*

### KEYWORDS

Fruit Processing, mango pulp industry, value addition and mango pulp productivity.

### INTRODUCTION

The food processing sector is of the great importance to India's development, for it establishes a vital linkage and synergy between the two pillars of the economy-Industry and Agriculture. The enormous growth potential of this sector can be understood from the fact that food production in the country is expected to double in the next 10 years, and the consumption of value-added food products will also correspondingly grow. The growth of this industry will bring immense benefits to the economy, raising agricultural yields, enhancing productivity, creating employment and raising life-standards of a large number of people across the country, especially those in rural areas.

### REVIEW OF LITERATURE

The fruit processing industry, being at the lowest segment of the food processing industries, has not received adequate attention, particularly in Chittoor district of Andhra Pradesh. The Studies relating to food processing can broadly be classified in to two groups i.e., Technical and Non-technical. The present study is basically non-technical, in the sense; it concentrates on the financial performance, problems and prospects of the fruit processing industry. A brief review of past researches relevant to the present study is presented below:

**Sunandini (2003)**, The study focuses on the constraints of the fruit processing industry in Andhra Pradesh. Andhra Pradesh ranks second in the area and production of horticultural crops in India. Among these crops, fruits occupy 43 per cent of the area and contribute 53 per cent of production. About 30 per cent of the horticulture produced is wasted every year due to post-harvest losses, lack of appropriate storage and transportation facilities and infrastructure. The processing of fruits not only adds value to this perishable produce but in turn generates employment and improves income levels. This is one of the few studies reviewed her, immediately relevant to the present investigation.

**S. Mahendm Dev and N. Chandra Sekhar Rao (2004)**, The authors analyse the opportunities and challenges in processing of rice, fruits and vegetables, oil seeds and live stock products. The objectives of the study were to assess the working of contacts between processors and farmers in Andhra Pradesh. The study concluded that the policy recommendations under five broad headings- institutional taxes and subsidies research and training, infrastructure and other suggestions for the development of fruit processing units in Andhra Pradesh.

### STATEMENT OF THE PROBLEM

Review of the literature reveals that a majority of the studies review concentrate on the technical aspects of fruit processing, input-output matrices, etc. A few of the studies which focus on financial analysis select only one institution either at the village or district level or State level. In that sense, their studies are rather narrow and limited. No attempt has been made to compare more than one Fruit Processing unit, in this regard. No attempt either appears to have been made to analyse/compare the performance and problems of the many fruit processing units. Moreover, the operational efficiency is the critical aspect in the success or failure of business.

### NEED FOR THE STUDY

The working of Fruit Processing Units in Chittoor district is found to be unsatisfactory and has failed to produce the expected results, defeating the confidence reposed by planners, administrators and farmers in this sector. The Units in Chittoor District have failed to meet the demand for its products within and outside the state and thus have caused a great loss to the state revenue. The question -"Why the fruit processing industries in Chittoor District have been unable to fulfill the expectation" has remained unanswered. Therefore, the present undertaking takes into consideration the past and present performance of the various fruit processing units in Chittoor district and the problems they have been encountering. It also considers the possible strategy and plan of action that may be adopted to develop the fruit processing industry and better its performance.

### OBJECTIVES OF THE STUDY

The following objectives are set for the present study:

- to Probe into the various problems encountered by the Fruit Processing Units and to assess their future prospects in Chittoor District and
- to suggest feasible measures to tone up the existing performance of the Fruit Processing Units in the district.

**RESEARCH METHODOLOGY**

In view of the specific objectives of the present study, it uses both primary and secondary data. It contemplates a two pronged approach. It focuses attention first on the sample of 14 fruit processing units in the district and next on various institutions and departments engaged in this sector, to obtain factual data. Further the study makes use of the published reports of APEDA, WTO, Ministry of Food Processing Industry, DIC and the like.

**SAMPLE DESIGN**

There are 53 fruit processing units in operation in Chittoor district. These units have been classified as per investment criteria of MSMEs Act, 2006. According to this criterion, there exist 40 units in Small Scale, 08 in Medium Scale and 05 in Large Scale. As these units are having mixed results in terms of profitability and viability, 07 units in Small Scale, 03 units in Medium Scale and 04 units in Large Scale were selected purposefully for in-depth study.

**SCOPE AND LIMITATIONS OF THE STUDY**

The present study has certain limitations of which the investigator is fully aware. Adequate data pertaining to the fruit processing industry in Chittoor district was not available in this field had been conducted so far. So, the present study has had to rely more on the data collected from the responding fruit processing units in the district. Unfortunately, only a few units from Chittoor division, Tirupati division and Madanapalh division were willing to respond to the questionnaire after much persuasion and personal request. Hence, the analysis has had to be done on the basis of the available limited information and data.

**FRUIT PROCESSING INDUSTRY IN CHITTOOR DISTRICT**

The Chittoor district is second largest Mango growing region in Andhra Pradesh, The market is very prone to fluctuations both in prices and production. The Fruit Processing industry also faces lot of fluctuations in production and marketing. Although a number of studies have been conducted, quite a large number of seminars and conferences being organized, volumes of information published on the marketing of mango production yet due to wide fluctuations in production and price, most of the studies have not been able to provide time-tested market solutions. Education, levels of development and enterprising abilities of mandi-owner-cum-traders shake the market efficiency operations. Some issues are region-specific and area-specific. Mango being a tropical crop it is grown in limited agro climate zone/region. On the other natural conditions, market accessibility, infrastructural and location variations show marked advantages or disadvantages because of the perishable nature of mango produce. In this context, location specific or district level studies focus on the problem more effectively than state or country-wide studies. Though Chittoor district is the second largest mango producing centre in Andhra Pradesh, there is no comprehensive study of the Fruit Processing Industry in Chittoor District. Hence, ATMA and Chittoor District Fruit Processors' Federation have proposed to study and identify the problems faced by Fruit Processing Industry in Chittoor district, and solutions for them.

**MAJOR BENEFITS AND PROBLEMS OF FRUIT PROCESSING INDUSTRY**

The State of Andhra Pradesh ranks Second in the Country in Fruit Production and the Mango Production alone is 31,64,172 M.T.s and the Production of Mango Pulp is about One Lakh Fifty thousand Tons mostly produced in Chittoor District only. There are about 53 Fruit Processing Units functioning in the District and are developed in to a cluster.

90 per cent of the Mango Pulp produced in the District is being Exported mainly to the Gulf countries like Kuwait, Saudi, Dubai etc., and also to the European Countries earning Crores of Rupees as valuable foreign exchange to the country. In addition, the domestic consumption of Pulp as Fruit Juices, Jams etc., has been increasing steadily. The Government gets Crores of Rupees by way of Excise Duty and other taxes. Thus the industry's contribution to the nation's economy is considerable.

**BENEFITS OF FRUIT PROCESSING INDUSTRY**

The farmer is immensely benefited by selling his Mango produce directly to the Factories.

- ❖ By avoiding the middle man the farmer gets correct weighments for his product.
- ❖ He gets the actual market price for his produce and prompt payment. Thus many produce is becoming a major source of income to the small and marginal farmers, in this District.
- ❖ The factories in Chittoor District procure Mangoes not only from the District but also from Kodur, Rajampet and Rayachoti areas in the neighbouring Kadapa District and also from Krishna District. Thus Farmers of other districts in Andhra Pradesh are also benefited.

Apart from the farmers, nearly 20,000 agricultural labourers are working in the Industry during the Season, that too in the summer months, and thus earn their livelihood. Thus the Fruit Processing Industries play an important role in the development of the State and the Country as a whole.

**PROBLEMS OF FRUIT PROCESSING INDUSTRY**

The Following and Table 1 shows the problems faced by the fruit processing industry in Chittoor district.

**TABLE 1: PROBLEMS OF FRUIT PROCESSING INDUSTRY IN CHITTOOR DISTRICT**

SI.No	Problems	No. of Respondents	Percentage
1	Machinery	12	7.90
2	Bank Loan and Interest	14	9.21
3	Asceptic Packing Unit under Common Facility	10	6.58
4	Agricultural Market Cess (AMC)	10	6.58
5	Electricity	09	5.92
6	Supply of Coal	07	4.61
7	Disposal of Mango Waste Products	14	9.21
8	Raw material	14	9.21
9	Water	03	1.97
10	Labour	12	7.90
11	Marketing	10	6.58
12	Malpractices	07	4.61
13	Storage	12	7.90
14	Government Officials	04	2.63
15	Infrastructure Development	14	9.21

Source: Field Study

Note: Figures m parentheses indicate percentage to totals

The major problems of the fruit processing units in Chittoor District of Andhra Pradesh are explained hereafter:

➤ **MACHINERY**

For 7.9 per cent of the units machinery is a problem. Usually it takes 3 to 6 months to get the machinery after the placement of order to Metal Box India Ltd., Chennai or Rayon's Metal Works, Mumbai. In recent years the cost of machinery has been increasing rapidly. Further, rapid technological changes are making the machinery bought obsolete within a short time. Consequently, the units have to place orders for new machines in frequent intervals. If the units cannot replace the old by new ones, it is difficult for them to survive in the competitive market. The units have to pay high interest charges on medium term loans raised to purchase new machinery, which puts a heavy financial burden on them. The Government must reduce interest rates and direct commercial banks and financial institutions to provide liberal medium term loans for purchasing the latest machinery.

➤ **BANK LOAN AND INTEREST**

All the 53 Units in the District have availed themselves of Loans from Nationalized Banks for the Term Loan and Working Capital. Being a Seasonal Industry, the Fruit Processing Industry works for 60 days only in a year and during the rest of the year, it is kept idle. Fruit Processors' effort to run the Industry throughout the year with other fruits has not been successful due to lack of market facilities and involvement of huge capital. The interest burden on the Industry is heavy.

➤ **ASEPTIC PACKING UNIT UNDER COMMON FACILITY**

This is also 6.58 per cent of the total problems of the industry. The Aseptic packing unit under Common facility - Funds released by the APEDA (Central Government) was withdrawn as the Project was not grounded-by the Government of Andhra Pradesh. The APEDA had sanctioned a One-Time Grant (75% of the project cost) towards setting up the facility and accordingly an MOU was entered into by the APSTC with the APEDA. An extent of 11 Acres of land was identified at Kalluripalli Village in Chittoor Region and at Renigunta Mandal in Tirupati Region. The Government of Andhra Pradesh directed the Vice-Chairman and Managing Director of A.P. State Trading Corporation to implement the 'Common Aseptic Packing Unit' in Chittoor District.

➤ **AGRICULTURAL MARKET CESS (AMC)**

The processors have the problem of AMC to the extent of 6.58 per cent. In Tamilnadu fruits and vegetables are totally exempted from the AMC. In Karnataka the AMC is not levied on Processed Fruits and Vegetable Products. In Andhra Pradesh 1% AMC is levied on the cost of fruits purchased for processing. It may be noted that in India only 3% of the total fruit and vegetables are processed, where as in other countries like Brazil, Mexico and European countries 70 to 80% of the fruit and vegetable are being processed. The Government of Andhra Pradesh to encourage Food Processing Industry in the State announced Special incentives as per the guidelines and G.O issued under the Food Processing Policy of Andhra Pradesh on 14-11-2003. 'All Food Processing Industries shall be exempted from payment of Market Cess on Procurement of Raw Materials like Mangos for the Industry. But the policy has not been implemented so far by the Marketing Department.

➤ **ELECTRICITY**

Most of the Fruit Processing Industries have below 75 HP connecting Load and come under category III A. Due to modernization of the industry to improve quality, strict sanitation and hygiene and compulsory provision of Effluent Treatment Plant, the power requirement of the industry has naturally increased considerably, is more and some items going beyond 75 HP III A Category thereby the Electricity Authorities demanding to Fruit Processing Industrialist to join III B Category. As per the terms and conditions of category III B the entrepreneur has to pay Rs 2,000/- per HP as Security and development charges and install his own Transformer costing Rs. One Lakh and also metering cost of Rs 1,40,0000. As the Fruit Processing Units work only for seasonal three months in a year, they are unable to bear the huge amounts under this category. The industry is already facing financial crisis and is crippled due to lack of funds and additional expenditure on account of power (category to III B) will definitely affect the industry adversely (5.92 per cent in the total problems faced by industry). So, the Government would do well to instruct the authorities of AP TRANSCO to regularize the Fruit Processing Units additional load without insisting that they purchase Transformers and not to insist metering costs.

➤ **SUPPLY OF COAL**

Each Processing Unit requires 180 M.T.s of Coal for seasonal Mango Processing. During the previous years the District Industries Centre recommended to the Singareni Collieries Co. Ltd., A.P. to supply coal at reasonable price to the fruit processing industry in the district. But during the year 2006-2007 the Sanction or Recommendation was entrusted to three departments viz. District Industries Centre, Commercial Tax Department and Ned Cap and as a result a number of units could get coal permit for the season of 2006. Due to this involvement of three departments the concept totally failed and the canners suffered heavy financial loss as they had to Purchase coal at higher rates from other States. 4.61 per cent of this problem is not negligible.

➤ **DISPOSAL OF MANGO WASTE PRODUCTS**

Among the problems of the industry disposal of waste looms large (9.21 per cent). During the process of fruits 50% of the quantity comes out as Mango waste in the form of Mango seed, Mango peel, fiber and Boiler cinder waste. To dispose of this waste at the Factory premises has become very problematic, the wastes indisposed creates quality and hygienic problems. So, the government would help the industries by allotting them 2 to 3 acres of waste land per unit in the neighbouring areas at Government Cost or on Lease Basis also, so that there will not be any pollution or Public Health Problems.

➤ **RAW MATERIAL**

Like the precious one this is also a major problem (9.21 per cent). In pulp production mangoes, sugar, chemicals and tin plates are the main inputs. Mangos Mango fruits are purchased from mango mandi merchants in the District. The Mandi merchants purchase fruits from farmers at low prices and sell them to the Fruit Processing Units at high prices. They also appropriate 10 per cent of the sale proceeds accruing to the farmers as commission. Thus the mandi merchants have been exploiting the farmers and the Fruit Processing Units. To avoid such exploitation the Processing Units themselves collectively could start a central purchase organization and purchase fruits directly from farmers at reasonable prices, to mutual advantage.

➤ **CHEMICALS**

The chemical used in Fruit Processing is citric acid. The Processing Units find it difficult to get sufficient citric acid which is in short supply. But it is the most important chemical in the manufacturing of pulp. One tonne of production requires 0.7 kg to 1.25 kg of citric acid depending upon the acid content of the pulp. The quality and durability of pulp depends upon the balance of acid and sucrose content. Citric acid and sugar are used in the pulp production to establish the required balance. Due to insufficient supply of citric acid, there is keen competition for the acid among the units resulting in price escalation and black marketing. The market price of citric acid is Rs.85. per kg, but in the open market it varies from Rs. 90 to 100.

➤ **SUGAR**

The sucrose content in the pulp should be in the range of 16.5 per cent to 18.5 per cent. Usually sugar is used when fruits with less sweetness are used. Local varieties of fruits being more sweet require less or no sugar. But the fruits purchased from other districts being less sweet require the addition of sugar. The units have to purchase sugar in open market at high prices. In order to help the Processing Units, it is better if the government supplies sugar at controlled prices.

➤ **TIN PLATES**

Tins Plates are used for packing pulp. Specially coated tin plates are necessary for making pulp-packing tins and are imported from Taiwan and the USA, through government canalizing agencies. The units have to place indent for tin plates with these agencies. These agencies take nearly one year to supply them after receipt of the indent. The units can also purchase from private agencies like Metal Bos Company, Poshia Ltd., etc., Heavy customs duties are imposed on the import of tin plates. The government of India exempts import duty on the tin plates used for export market. The units can claim refund of import duty on the quantity of tin plates used for making tins for packing pulp exported to foreign market. It is a cumbersome process to prepare different accounts and claim refund. Sometimes the units entrust the work of collecting the refund amount to the export houses. But the export houses sometimes do not passing on the refund amount collected from the government to the units concerned.

### ➤ WATER

Water does not appear to be so much of a worrying problem for the units as the other, its low percentage (1.97) among their problems indicates it. Sufficient underground water is available in the district. Only three units are facing this problem, and have made arrangements with neighbouring farmers to supply the required amount of water through a payment of Rs. 6,000 per annum.

### ➤ LABOUR

Labour is also a serious problem of the industry (it amounts to 7.90 per cent of the total problems). The seasonal nature of the fruit processing industry makes it necessary to employ workers on a temporary basis. To attract temporary workers, the processing units have to offer slightly higher wages than the existing agricultural wages in the area. That is, wages paid by the processing units should be higher than their opportunity wages in agriculture. Further, the processing season also coincides with the busy agricultural season in the district. Hence, fruit processing units in the different region in the district face shortage in labour supply and have to offer slightly higher wages to attract labour. With regard to skilled workers, they are employed temporarily on monthly basis. A small number of skilled workers are employed on a permanent basis for maintaining the machinery and to undertake marketing and accounting activities.

### ➤ MARKETING

Marketing is a major problem confronting the processing units (6.58 per cent of the total problems of the industry). Gradually the export market is dwindling in spite of incentives offered for exports. On tins used for packing pulp for export no import duty is imposed. Further the market price of pulp in the foreign market is higher. Hence, exporting pulp rather than marketing domestically is more profitable. But unfortunately the demand for pulp in the foreign market is declining. The processing units are exporting pulp to the Gulf Countries. But due to the recent decline in Mango Pulp prices, pulp purchasing orders from the Gulf Countries are declining. In addition, the export houses order other fruit products like jams and jellies along with pulp. Due to the decline in foreign demand many units which failed to secure adequate purchase orders from export houses are compelled to work below their installed capacity. As a result some units have closed down their operations completely. The Export market depends upon advertisement. Hence it is necessary to popularize pulp products in foreign countries. This requires huge sums of money. The Processing Units being small and scattered are not in a position to undertake advertisements in foreign countries, either individually or collectively as a consortium. So, the government should undertake the responsibility of finding an export market for fruit processing products. And at the same time the units should undertake the responsibility of reaching more and more consumers in the international market. They should forge new marketing techniques like packing pulp in small polythene packets or in bottles to suit the purse of small consumers.

### ➤ MALPRACTICES

Marketability of a product depends upon its quality and price. Mango pulp being a food product, utmost care should be taken in maintaining the quality. The quality of pulp depends upon the purity and cleanliness of fruits and use of scientifically required quantities of chemical preservatives in the preparation of the pulp. Clean and good mango fruits should be used for pulp preparation. At the time of slicing fruits spoiled and damaged fruits have to be discarded to preserve the quality of the pulp. But in some processing units of semi-damaged or spoiled fruits are mixed up with good ones, to economize the consumption of sugar and to increase the volume of pulp output. The spoiled fruits being well ripened and sweet, the pulp prepared would contain the necessary sucrose content minimizing the use of sugar. But the pulp thus prepared would not only be of bad quality but also may not last long. This problem is not negligible and has to be resolved.

### ➤ INFRASTRUCTURE DEVELOPMENT AND MODERNIZATION BY UP-GRADING TECHNOLOGY IN MANGO FRUIT PROCESSING INDUSTRY

This is a very important problem of the processing industry, its percentage score 9.21. To achieve the target of high Productivity and hygiene Quality Products of assured Marketability in the International Competition it is absolutely necessary that the industry given special attention to infrastructure development and up grade from time to time its technology. But both require considerable investment. The units in Chittoor district work for 90 days only from May to July during the Mango Season. And no other Fruits are available to process. The district is also prone to famines therefore the survival of the units and their continue of existence tend to be precarious if the units are hit the Mango Farming community which supplies the raw material and thousands of Skilled and Unskilled labourers who depend on the industry suffer in consequence. If the industry prospers, Government of India would get huge Amounts of Foreign Exchange through Exports. Among the Cluster of processing industry in the district there are nearly 10 Units which are Large-Scale Industries capable of heavy investment, have Aseptic packaging facility and can export their products on their own. The remaining 43 Units are Small-Scale and Medium-Scale Established from the year 1983 onwards, and have very old conventional Mango Pulp Processing Equipment. With the old and outdated Machines it is very difficult to achieve large scale productivity and hygienic Quality products. Now all the 40 units are surviving doing job work for Merchant Exporters and Aseptic packaging Exporters. Most of them are not able to invest huge Amounts on Infrastructure development and Modernization of Technology. At present the 25% Subsidy Assistance given by the government is not adequate for the Investment of Rs.70 Lakh per Unit for up gradation. The fruit processors request the powers that be to grant 50% Subsidy on the present Investment of Rs.70 Lakh per Unit as a Special package under the AEZ Cluster Development.

## PROSPECTS OF FRUIT PROCESSING INDUSTRY IN CHITTOOR DISTRICT

As pointed out several firms, Chittoor district is one of the few major mango growing districts in the entire State. There is immense scope for establishing more units in the district in the years to come, as there are some real advantages. By the fruit processing industry in the district is not free from problems as already noted. To recall them: lack of working capital, seasonality of the production, highly seasonal operations of the units, inadequate effort to enhance product range and explore domestic markets, lack of cost optimization effort and the like. Therefore, it is necessary to probe further in to the various problems and visualize future prospects of the industry in the district.

The following factors are favourable to attract entrepreneurs for establishing fruit processing units.

- ❖ Existence of a fairly mature and developed fruit processing cluster, in Chittoor district comprising 53 enterprises, predominantly SMEs, engaged in processing tropical fruits and catering to both domestic and export markets.
- ❖ Easy access to a very large and diverse raw materials base spreading across Chittoor, Kadapa Anantapur and Nellore districts of Andhra Pradesh. All these districts are contiguous, and a variety of tropical fruits (Mango, Papaya, Guava, Pomegranate, Lemon, Banana, Water Melon), vegetables (Tomato, Beans, Okra, Brinjal), tamarind and poultry eggs are available in different seasons within a distance ranging from 5-200 km. Kolar district of Karnataka and North Arcot, Krishnagiri and Dharmapuri districts of Tamilnadu have similar range of products which can be processed.
- ❖ Presence of a large number of service provider's viz. raw materials suppliers, marketing firms, logistics providers and skilled labour.
- ❖ Proximity to major consumption markets viz., Bengaluru (154km.), Chennai (147 km.), and Tirupathi (100 km.) For various end products.
- ❖ Proximity to sea ports at Chennai and Krishnapatnam, international airports at Chennai and Bangalore facilitating export of finished products and import of inputs and capital goods.
- ❖ Encouraging state and central Government policies on fruit processing industries.
- ❖ Incentives offered by Government in terms of minimum demand charges for electric power, market cess, duty draw back etc., for fruit processing enterprises set up in Chittoor district under Agri Export Zone (AEZ) and other schemes.

## FINDINGS OF THE STUDY

Regarding the organization of the fruit processing units in Chittoor District majority of them are under the private sector. It means that the private sector plays an important role in the development of the fruit processing industry in the district.

- Non availability of suitable raw materials in terms of size, colour, texture etc., lack of awareness about the processable varieties, low yield and poor quality of raw materials are the main causes for the low productivity of the units.
- Packing materials are not easily and steadily available. One has to get them from Chennai and Mumbai markets. The cost of the packaging material therefore is also very high.
- Marketing efforts are not well-organized by Chittoor district fruit processors to counter the competition from well-established national brands, such as Kissan, Bikaji and Rallies who maintain international standard quality.

➤ Most of the units still follow the traditional method of marketing and so they do not try to take into account the customer's desires and needs.

### SUGGESTIONS

The following suggestions have been made for solving some of the processing problems of the fruit processing and for bettering the units performance to enable them to contributing more significantly to India's economy.

- ❖ Citric acid is the main chemical used in pulp production which is in short supply. There is prevalence of black marketing. Scarcity and high price is resulting in improper use of citric acid affecting the quality of pulp. Therefore, government should ensure adequate supply of citric acid at reasonable prices to the processing units. Further, proper supervision and control should be exercised in maintaining the quality of pulp. Any defect in the quality of pulp production has to be dealt with severely.
- ❖ Sugar is purchased in the open market by the units at a high price. Therefore they use sugar inadequately in pulp production so save expenditure. This result in low levels of sucrose content in the pulp. To avoid this defect it is better to supply sugar at controlled rates to the processing units.
- ❖ High cost of tin plates is inevitably increasing packaging expenses. There is an urgent need to reduce the packaging and marketing expenses in order to reduce the price of pulp to make it available within the reach of common man.
- ❖ At present the units are working for 90 days only from May to July Mango season. And no other fruits are available to process further for various reason during the other days of the year. The processing units are providing huge employment for thousands of skill and unskilled workers. By proper utilization of fruits in the district and importing fruits from the neighbouring district, the units can prolong their production season to 120 days. This will reduce the production costs, increase employment opportunities to labourers and improve the profitability of the units.

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**ORGANIZATION JUSTICE TOWARDS COUNTERPRODUCTIVE WORK BEHAVIOR IN BANKING SECTOR****PIAR CHAND****PROFESSOR****DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES****NATIONAL INSTITUTE OF TECHNOLOGY****HAMIRPUR****PAWAN KUMAR CHAND****RESEARCH SCHOLAR****DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES****NATIONAL INSTITUTE OF TECHNOLOGY****HAMIRPUR****ABSTRACT**

*This research study was designed to understand the cause and effect relationship between Counterproductive Work Behaviour (CWB) and Organization justice among junior managers (scale -1 officer) of Indian public sector banks. Total 300 junior managers (scale -1 officers) were chosen through purposive sampling technique from various Indian Public Sector Banks. Data was collected by questionnaire method and analyzed with structure equation modeling and Karl Pearson correlation. Result of research study reveals sabotage and withdrawal dimensions of CWB were positively and significantly correlated with organization justice. Theft another dimension of CWB was found positive and significantly correlated with procedural and interaction justice, dimensions of organization justice, among scale-1 officers of Indian Public Sector Banks. No significant relation were found between abuse, property deviance dimensions of CWB with organization justice.*

**KEYWORDS**

Counterproductive Work Behaviour, Organization justice, Indian Public Sector Banks.

**ABBREVIATIONS**

JMS 1- Junior Manager Scale- 1 Officers  
 CWB- Counterproductive Work Behaviour  
 IJ-Interaction Justice  
 PJ-Procedural Justice  
 DJ-Distributive Justice

**INTRODUCTION**

When employees feel that they are treated unfairly, they tend to experience feelings of anger, outrage, frustration, and a desire for retribution (Bies & Tripp, 1996; Greenberg, 1990). Under certain circumstances, these negative feelings can manifest into deviant behaviors or counterproductive work behaviour (Robinson & Bennett, 1995). These behaviors are counterproductive or destructive to organizational effectiveness. To date, our understanding of counterproductive work behaviour includes a wide range of negative behaviors including subtle expressions of rebellion, such as gossiping and taking unapproved breaks, to more destructive causes behind organization justice at workplace that influence dimensions of CWB? What is the correlation between dimensions of organization justice and counterproductive work behaviour? Still there will be need of attention to be paid by researchers in support to literature of CWB, giving significant consideration to various cultures of the organizations.

**COUNTER PRODUCTIVE WORK BEHAVIOUR**

Counterproductive Work Behaviour (CWB) may be defined as any deliberate or unintentional activity on the part of an individual which can hamper the performance of self, others or organization. Counterproductive Work Behaviour may also be understood as the behaviour which can harm or intended to harm self, people and organizational resources. The Counterproductive Work Behaviour is an act which may be directed towards both the organization and individuals. Spector, Fox, Penney, Bruursema, Goh, and Kessler (2006) classified CWBs into five main dimensions. Based on their treatment, we use the following classification in this research:

**Abuse** It consists of harmful behaviors directed toward coworkers and others that harm either physically or psychologically through making threats, nasty comments, ignoring the person, or undermining the person's ability to work effectively.

**Production Deviance** It is the purposeful failure to perform job tasks effectively the way they are supposed to be performed.

**Sabotage** It is defacing or destroying physical property belonging to the employer; intentional wasting of the materials in the organization and Purposely dirtied or littered the place of work.

**Theft** Stole something belonging to your employer, delaying the duties to get extra-time salary.

**Withdrawal** It is consists of behaviors that restrict the amount of time working to less than is required by the organization. It includes absence, arriving late or leaving early, and taking longer breaks than authorized.

In the study of Rishipal (2012) different levels of managers have been compared for managerial effectiveness and Counterproductive Work Behaviour. Findings revealed that different level of managers differ significantly in their mean values with respect to their psychological characteristics of CWB and managerial effectiveness as well as there is significant correlation between the tendency of CWB and managerial effectiveness among the different levels of managers.

**ORGANISATION JUSTICE**

Greenberg (1987) introduced the concept of organizational justice with regard to how an employee judges the behaviour of the organization and the employee's resulting attitude and behaviour. (e.g., if a firm makes redundant half of the workers, an employee may feel a sense of injustice with a resulting change in attitude and a drop in productivity). Three main proposed components of organizational justice are distributive, procedural, and interactional justice (which includes informational and interpersonal justice).

**Distributive justice** is conceptualized as the fairness associated with decision outcomes and distribution of resources. The outcomes or resources distributed may be tangible (e.g., pay) or intangible (e.g., praise). Perceptions of distributive justice can be fostered when outcomes are perceived to be equally applied (Adams, 1965).



**Procedural justice** is defined as the fairness of the processes that lead to outcomes. When individuals feel that they have a voice in the process or that the process involves characteristics such as consistency, accuracy, ethicality, and lack of bias then procedural justice is enhanced (Leventhal, 1980).

**Interactional justice** refers to the treatment that an individual receives as decisions are made and can be promoted by providing explanations for decisions and delivering the news with sensitivity and respect (Bies & Moag, 1986). A construct validation study by Colquitt (2001) suggests that interactional justice should be broken into two components: interpersonal and informational justice. Interpersonal justice refers to perceptions of respect and propriety in one's treatment while informational justice relates to the adequacy of the explanations given in terms of their timeliness, specificity, and truthfulness.

## LITERATURE REVIEW

Organizational justice is concerned with employee perceptions of fair or just treatment on the job. It fits definitions of job stressors as being situations that elicit an adaptive response (Jex & Beehr, 1991) or situations that elicit negative emotional reactions (Spector, 1998). For example, the seminal equity theory and empirical work by Adams (1963) suggests that inequity (injustice) motivates people to make adaptive responses in a variety of ways, both cognitive and behavioral. More recent work on justice has linked perceptions of injustice to negative emotions (e.g., Skarlicki & Folger, 1997). Zohar (1995) specifically demonstrated the role of organizational justice in the job stress process as a role stressor, in the elicitation of both negative emotion and consequent strain responses, but did not link stress to counterproductive behavior. Two major forms of justice have been studied. Distributive justice relates to people's perceptions of the fairness of the outcomes they receive relative to their contributions and to the outcomes and contributions of others. Procedural justice involves people's perceptions of the fairness of procedures used to determine those distributions (Folger & Greenberg, 1985; Levanthal, Karusa, & Fry, 1980). Several studies have linked both forms of justice perceptions with counterproductive organizational behaviors. Skarlicki and Folger (1997) summarized research that indicates employees may respond to perceptions of unfair treatment with negative emotions, such as anger, outrage, and resentment (Folger, 1993); desire for retribution; and a range of direct and indirect behavioral responses such as theft (Greenberg, 1990), vandalism, sabotage, reduction of citizenship behaviors, withdrawal, and resistance (Jermier, Knights, & Nord, 1994). Cropanzano and Baron (1991) linked injustice to emotions and workplace conflict. Indeed, many parallels have emerged between the job stress and organizational justice explanations of counterproductive organizational behavior, including the central roles of emotional responses and affective dispositions. By viewing perceived injustice as a type of job stressor, we arrive at a unifying framework for understanding CWB that incorporates constraints, conflict, justice perceptions, control (autonomy), emotional responses, and affective dispositions as antecedents of distinct categories of behavioral responses.

## HYPOTHESES

**H1:** There will be cause and effect relationship between dimensions of organization justice and counterproductive work behaviour .

**H2:** There will be positive significant correlation between organization justice and counterproductive work behaviour .

## RESEARCH METHOD

### SAMPLE

The sample for present study was 300 junior manager scale-1(JMS-1)officers, selected from banking industry of north India. Purposive sampling technique was used in order to select the sample, because selection of JMS-1was of supreme choice.

### TOOLS

This study was exploratory and descriptive–survey research of various JMS-1public sector bank employees operating in north India. Data was collected by the questions based on several questionnaires.

### COUNTERPRODUCTIVE WORK BEHAVIOUR SCALE (CWB)

We measured counterproductive work behaviour by using the CWB checklist developed by Spector and Fox(2005).The objective was to include behaviours that represented the five categories of CWB that have been validated by the investigator. The scale consists of 23 items covering the five aspects of CWB; Abuse ( $\alpha = 0.969$ ), Sabotage ( $\alpha = 0.851$ ), Production Deviance ( $\alpha = 0.86.0$ ), Theft ( $\alpha = 0.856$ ) and Withdrawal ( $\alpha = 0.887$ ).The reliability of the total scale was 0.866.For this survey, the instructions asked the respondents to "indicate how much see the following behaviours in your banks" with a scale using a Likert scale ranging from "1" = Very little to "5"=Very much

### ORGANIZATION JUSTICE SCALE

To measure the level of organization justice, organization justice was categorized into three parts: 1. Distributive justice 2. Procedural justice and 3. Interaction justice. Distributive justice was measured with the scale developed by Price and Mueller (1996). This five-item scale measures the degree to which rewards received by employees are perceived to be related to performance inputs. Procedural justice was measured with scale developed by Niehoff and Moorman (1993). Procedural justice was measured by using 8 items. Selected items were checked for their reliability and validity. Interaction justice was measured with scale developed by Judge and Colquitt (2004), using 8 items. All the items were tested for reliability and validity. The reliability statistics of these dimensions of organization justice were reported as; Distributive Justice( $\alpha = 0.965$ ), Procedural Justice( $\alpha = 0.988$ )and Interaction Justice ( $\alpha = 0.954$ ). The overall reliability (Cronbach's alpha) of this scale in this study was reported as .934 which shows that the internal consistency is high and the scale is reliable.

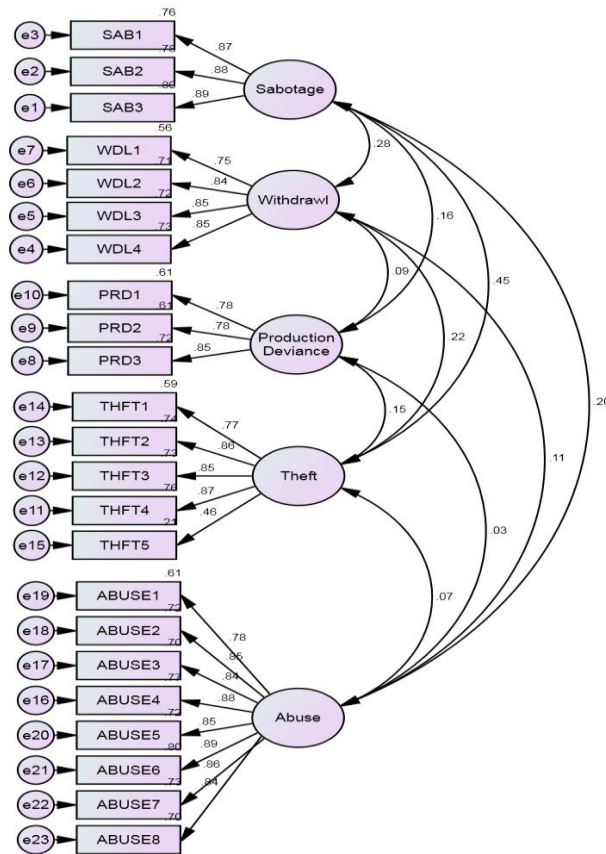
## ANALYSIS

In this study we used confirmatory factor analysis and structural equation modeling in AMOS software to estimate and test the research model. We investigated the study hypotheses by using direct efficiencies resulted from SEM.

### THE MEASUREMENT MODEL

A confirmatory factor analysis (CFA) using AMOS 18.0 was conducted to test the measurement model of counterproductive work behaviour and organization justice. It was essential to test whether the measurement model had a satisfactory level of validity and reliability before testing for a significant interrelationship in the structural model (Fornell & Larcker, 1981; Ifinedo, 2006).

FIGURE 1: CONFIRMATORY FACTOR ANALYSES OF MEASUREMENT MODEL COUNTERPRODUCTIVE WORK BEHAVIOUR



For reliability determination internal consistency was calculated, which shows measure of reliability of different survey items intended to measure the same characteristics (statistics.com, 2009). The indicator used to measure internal consistency is Cronbach’s alpha, a statistics calculated from the pair wise correlation between items which range between zero and one. The Cronbach’s alpha score was computed for each constructs to measure the internal consistency. Table- 1 shows the reliability of each construct was tested through Cronbach’s alpha. The reliability of the constructs was found to be high. Thus, these measures were relevant and can be used for SEM analysis.

Table -1 show the composite reliability of “Sabotage” was 0.914, “Withdrawal” was 0.894, “Production Deviance” was 0.846, “Theft” was 0.881 and for “Abuse” was 0.953. So we can conclude that composite reliability of the constructs in measurement model found to be above 0.70. Therefore, all constructs in the measurement model proved good reliability.

The factor loading of all observed variables in Table-1 were ranging from .745 to .894 This clearly indicates that observed variables or items were found to be adequate and corresponded to their constructs. So we can confirm the construct convergent validity.

Discriminant validity shows the extent to which a construct is truly distinct from other constructs (Hair et al. 2010). To assess Discriminant validity, there are two common methods used by most of the researches. First the correlation between measures of theoretically different constructs should not be high, meaning different instrument used to measure different constructs, should not correlate too strongly with instruments of a comparable but distinct characteristics(Trochim,2006). Second average variances extracted (AVE) of the individual constructs are higher than the shared variances between the constructs and the level of square root of AVE should be greater than the correlations involving the constructs. Figure-1 shows the construct “Sabotage” found to be low in positive correlation .20 with “Abuse”, .28, .16 and .45 correlation with “Withdrawal”, “Production Deviance” and “Theft” however construct “Withdrawal” found to be low in positive correlation .09, .22 and .11 with “Production Deviance”, “Theft” and “Abuse”. Similarly construct “Production Deviance” had .15 and .03 Low positive correlation with “Theft” and “Abuse” and construct “Theft” .07 positive correlation with “Abuse”. The low and below average positive correlation indicates that all the constructs noted to be independent in the measurement model. Additionally the average variances extracted (AVE) of the individual constructs were higher than the shared variances between the constructs. We can state that Discriminant validity appeared satisfactory at the construct level in the case of all constructs.

**TABLE 1: MEASUREMENT MODEL OF COUNTERPRODUCTIVE WORK BEHAVIOUR IN TERMS OF RELIABILITY AND VALIDITY**

Main Construct	Construct	Item Statements	Standard Factor Loading	Cronbach's Alpha	Composite Reliability CR	Average Variance Extracted AVE	Average Shared Variance ASV	Measured Shared Variance MSV
Counter Productive Work Behaviour	Sabotage	Purposely wasted your employer's materials/supplies	0.874	0.913	0.914	0.78	0.086	0.201
		Purposely damaged a piece of equipment or property	0.881					
		Purposely dirtied or littered your place of work	0.895					
	Withdrawal	Came to work late without permission	0.745	0.891	0.894	0.679	0.037	0.08
		Stayed home from work and said you were sick when you weren't	0.844					
		Taken a longer break than you were allowed to take	0.848					
		Left work earlier than you were allowed to	0.853					
	Production Deviance	Purposely did your work incorrectly	0.78	0.845	0.846	0.648	0.014	0.025
		Purposely worked slowly when things needed to get done	0.783					
		Purposely failed to follow instructions	0.85					
	Theft	Stolen something belonging to your employer	0.769	0.877	0.881	0.607	0.068	0.201
		Took supplies or tools home without permission	0.861					
		Put in to be paid for more hours than you worked	0.854					
		Took money from your employer without permission	0.872					
		Stole something belonging to someone at work	0.763					
	Abuse	Started or continued a damaging or harmful rumour at work	0.779	0.953	0.953	0.719	0.015	0.08
		Been nasty or rude to a client or customer	0.851					
		Insulted someone about their job performance	0.839					
		Blamed someone at work for error you made	0.877					
		Started an argument with someone at work	0.848					
		Verbally abused someone at work	0.894					
Threatened someone at work, but not physically		0.856						
Said something obscene to someone at work to make them feel bad	0.837							

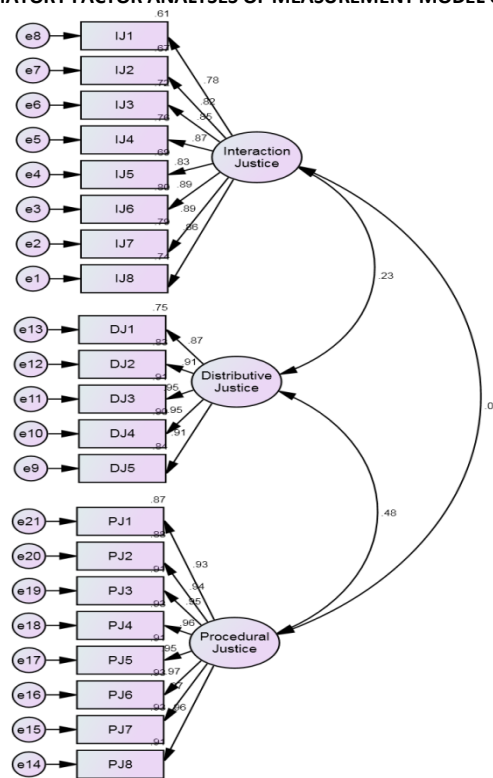
**TABLE 2: FIT INDICES FOR MEASUREMENT MODEL COUNTERPRODUCTIVE WORK BEHAVIOUR**

Model fit indices of Counter productive Work Behaviour	$\chi^2/df$ (Chi-square/degree of freedom)	CFI	GFI	NFI	TLI	RMSEA
Value	1.59	0.973	0.906	0.931	0.969	0.045

The respective  $\chi^2/df$ , CFI, GFI, NFI, and TLI values are 1.59, .973, .906, .931 and .969. The RMSEA shows a value of .045. All the values meet goodness of model fit standards. Therefore we can accept the model and look further to apply SEM on CWB model.



FIGURE 2: CONFIRMATORY FACTOR ANALYSES OF MEASUREMENT MODEL ORGANIZATION JUSTICE



For reliability determination internal consistency was calculated, which shows measure of reliability of different survey items intended to measure the same characteristics (statistics.com, 2009). The indicator used to measure internal consistency is Cronbach’s alpha, a statistics calculated from the pair wise correlation between items which range between zero and one. The Cronbach’s alpha score was computed for each constructs to measure the internal consistency. Table- 3 shows the reliability of each construct was tested through Cronbach’s alpha. The reliability of the constructs was found to be high. Thus, these measures were relevant and can be used for SEM analysis.

Table -3 shows the composite reliability of “Interaction Justice” was 0.954, “Distributive Justice” was 0.965, “Procedural Justice” was 0.988. So we can conclude that composite reliability of the constructs in measurement model found to be above 0.70. Therefore, all constructs in the measurement model proved good reliability.

The factor loading of all observed variables in Table-3 were ranging from .775 to .965 This clearly indicates that observed variables or items were found to be adequate and corresponded to their constructs. So we can confirm the construct convergent validity.

Discriminant validity shows the extent to which a construct is truly distinct from other constructs (Hair et al. 2010). To assess Discriminant validity, there are two common methods used by most of the researches. First the correlation between measures of theoretically different constructs should not be high, meaning different instrument used to measure different constructs, should not correlate too strongly with instruments of a comparable but distinct characteristics(Trochim,2006). Second average variances extracted (AVE) of the individual constructs are higher than the shared variances between the constructs and the level of square root of AVE should be greater than the correlations involving the constructs. Figure-2 shows the construct “Interaction Justice” found to be low in positive correlation .23 with “Distributive Justice” and .03 correlation with “Procedural Justice” however construct “Distributive Justice” found to be low in positive correlation .48 with “Procedural Justice”. The low and below average positive correlation indicates that all the constructs noted to be independent in the measurement model. Additionally the average variances extracted (AVE) of the individual constructs were higher than the shared variances between the constructs. We can state that Discriminant validity appeared satisfactory at the construct level in the case of all constructs. With the confirmation of reliability and validity measurement model of organization justice can be tested for proposed research objective.

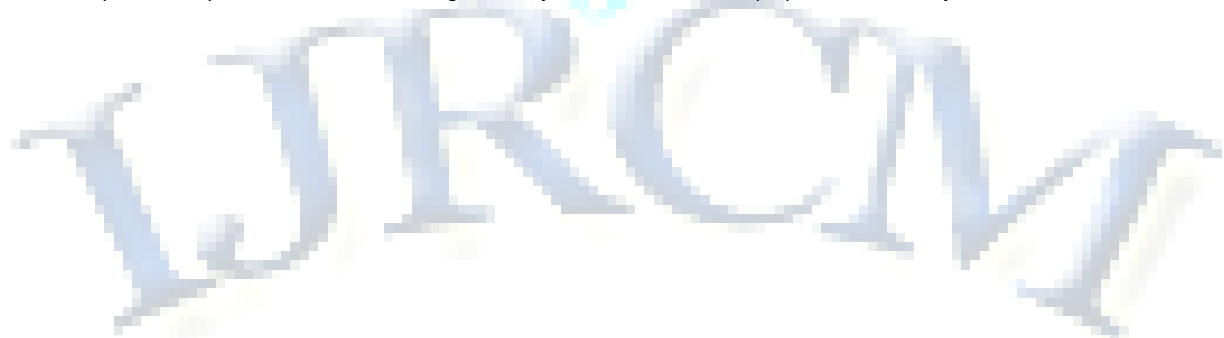


TABLE 3: MEASUREMENT MODEL OF ORGANIZATION JUSTICE IN TERMS OF RELIABILITY AND VALIDITY

Main Construct	Construct	Item Statements	Standard Factor Loading	Cronbach's Alpha	CR	AVE	ASV	MSV	
Organization Justice	Interaction Justice	Treated you in a polite manner?	.779	0.954	0.954	0.724	0.028	0.055	
		Treated you with respect?	.820						
		refrained from improper remarks or comments?	.851						
		been candid in his/her communications with you	.873						
		explained the procedures thoroughly?	.832						
		provided you with reasonable explanations regarding the procedures?	.895						
		Communicated details in a timely manner?	.891						
		seemed to tailor his/her communications to individuals' specific needs?	.861						
	Distributive Justice	My supervisor has fairly rewarded me when I consider the responsibilities I have.		.866	0.965	0.965	0.847	0.142	0.228
			My supervisor has fairly rewarded me when I take into account the amount of education and training that I have.	.913					
			My supervisor has fairly rewarded me when I consider the amount of effort that I have put forth	.954					
			My supervisor has fairly rewarded me when I consider the stresses and strains of my job.	.950					
			My supervisor has fairly rewarded me when I consider the work that I have done well.	.915					
	Procedural Justice	Job decisions are made by my supervisor in an unbiased manner.		.935	0.988	0.988	0.910	0.115	0.228
			My supervisor clarifies decisions and provides additional information when requested by employees.	.939					
			Employees are allowed to challenge or appeal job decisions made by my supervisor.	.954					
			When decisions are made about my job, my supervisor treats me with kindness and consideration.	.962					
			When decisions are made about my job, my supervisor is sensitive to my personal needs.	.954					
			When decisions are made about my job, my supervisor shows concern for my rights as an employee.	.965					
			My supervisor offers adequate justification for decisions made about my job.	.965					
			My supervisor explains very clearly any decision made about my job.	.955					

H1 : STRUCTURAL MODEL

FIGURE 3: IMPACT OF ORGANIZATION JUSTICE TO COUNTERPRODUCTIVE WORK BEHAVIOUR, STRUCTURAL MODEL

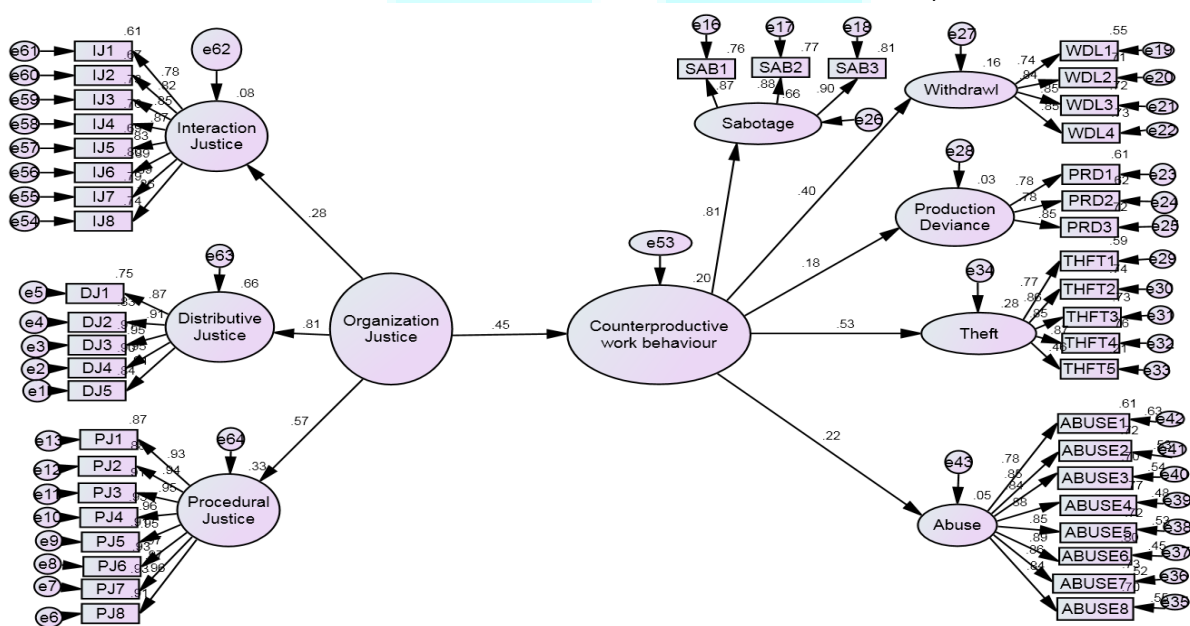


TABLE-4: IMPACT OF ORGANIZATION JUSTICE ON COUNTERPRODUCTIVE WORK BEHAVIOR ON JUNIOR MANAGER SCALE-1 OFFICERS IN INDIAN PUBLIC SECTOR BANKS

Endogenous Construct	Exogenous Construct	Standardized Regression $\beta$ coefficient Estimate	Un Standardized Regression Estimate	S.E	CR	P	Squared Multiple Correlation
Counter Productive Work behaviour	Organization justice	.449	1.498	.457	3.274	.001	.201

$\beta$  = standardized beta coefficients S.E. = standard error; C.R.= critical ratio  $P < 0.05$

Properties of the structural model (standardized path coefficients ( $\beta$ ), standard error, critical ratio and hypotheses result) are indicated in Table-4. The level of significance ( $\alpha$ ) is set at 0.05. Table -4 also reports the Squared multiple correlation  $R^2$ . The R-squared value was used to evaluate the strength of the proposed model. The  $R^2$  was the results of the multivariate test of the structural model show that the model, as a whole, explains 20.1% of the variation in impact of organization justice towards counterproductive work behaviour could be explained by the exogenous organization justice latent constructs. Figure -3 depicts the structural model. Table -4 presents the results of hypotheses testing, where the beta coefficients which also means standardized regression estimate ( $\beta = .449$ ,  $P < 0.05$ ) explains the relative importance of the affecting factors of organization justice towards counterproductive work behaviour. All expected relationship observed to be positive in nature.

The result of the analysis shown in Table -4 indicates that the probability value of the impact of organization justice on CWB is less than five percent. Hence with 95 percent confidence level the null hypothesis of no impact of the construct organization justice on CWB cannot be accepted. Thus, it can be concluded that there exists significant impact of cause and affects of organization justice on CWB in Indian public sector banks, in the research study.

TABLE 5: FIT INDICES FOR MODEL ORGANIZATION JUSTICE WITH RESPECT TO COUNTERPRODUCTIVE WORK BEHAVIOUR

Model Fit Indices of organization justice with respect to counterproductive work behavior	$\chi^2 / df$ Chi-square/degree of freedom	CFI	GFI	NFI	TLI	RMSEA
Value	1.862	.946	.800	.890	.942	.054

Further, in order to examine the hypothesized conceptual research model, the test of the structural model was performed using SEM to understand cause and affect relation between organization justice and counterproductive work behaviour. Table- 5 depicts the goodness-of-fit for the model was marginally adequate:  $\chi^2/df$ , CFI, GFI, NFI, and TLI values were 1.862, 0.946, 0.800, 0.890 and 0.942. The RMSEA shows a value of .054. Although the GFI and NFI value of 0.800 and 0.890 did not meet the threshold of 0.90, its value was very close to the threshold, thus we can conclude that the structural model to be accepted as per fit indices and we can further continue to analyze the research hypothesis defined in our model.

**H2: KARL PEARSON CORRELATION BETWEEN DIMENSIONS OF ORGANIZATION JUSTICE AND COUNTERPRODUCTIVE WORK BEHAVIOUR**

TABLE 6: KARL PEARSON CORRELATION ANALYSIS BETWEEN COUNTERPRODUCTIVE WORK BEHAVIOUR AND ORGANIZATION JUSTICE

Counter Productive Work Behaviour	Organization Justice		
	Procedural Justice PJ	Distributive Justice DJ	Interaction Justice IJ
Sabotage	.202 ** (.000)	.251** (.000)	.283** (.000)
Theft	.110 (.058)	.089 (.122)	.243** (.000)
Abuse	.083 (.153)	.040 (.490)	-.073 (.209)
Withdrawal	.190** (.001)	.268 ** (.000)	.214 (.000)
Property Deviance	-.064 (.267)	-.094 (.105)	.105 (.069)

\*\* Correlation is significant at  $p < 0.01$  level (2-tailed)

\*Correlation is significant at  $p < 0.05$  level(2-tailed)

**CORRELATION**

The result indicates that  $p < 0.05$  of Karl Pearson correlation statistics of significance in case of following pairs:

sabotage and procedural justice, sabotage and distributive justice, sabotage and interaction justice, theft and procedural justice , theft and interaction justice, Withdrawal and procedural justice ,Withdrawal and distributive justice, Withdrawal and interaction justice.

However, in case of following pairs given below the p-value of Karl Pearson correlation statistics found to be more than 5 % level of significance. Hence the null hypotheses of no correlation between them can be accepted.

Pairs are:

theft and distributive justice, abuse and procedural justice , abuse and distributive justice, production deviance and interaction justice.

it was also found that in case of pairs “abuse and interaction justice”, “ production deviance and procedural justice” and “ production deviance and distributive justice” there exist negative correlation between organization justice and counterproductive work behavior and p- value found to be more than 5 % level of significance. Hence the null hypotheses of no correlation between them can be accepted.

**RESULT AND DISCUSSION**

The result of present study generates valuable findings and also established causes and effect relationship among various dimensions of organization justice and acts of CWB. The research study supports seminal equity theory. The seminal equity theory and empirical work by Adams (1963) suggests that inequity (injustice) motivates people to make adaptive responses in a variety of ways, both cognitive and behavioral. More recent work on justice has linked perceptions of injustice to negative emotions (e.g., Skarlicki & Folger, 1997). Zohar (1995) specifically demonstrated the role of organizational justice in the job stress process as a role stressor.

All the dimensions of organizations justice were tested statistically with dimensions of counterproductive work behaviour, to establish cause and effect relationship in the research study of Indian public sector banks on junior manager scale-1 officers. Results shows:

- 1) Sabotage one of dimension of counterproductive work behaviour was found positively significantly correlated with all the dimensions of organizations justice in JMS-1 officers of Indian public sector bank. One study by Ambrose et al. (2002) adopted a multidimensional perspective on justice to investigate how three types of injustice (procedural, distributive and interactional) affect the goal, target, and severity of sabotage behavior. *Workplace sabotage* is behavior intended to —damage, disrupt, or subvert the organization’s operations for the personal purposes of the saboteur by creating unfavorable publicity, embarrassment, delays in production, damage to property, the destruction of working relationships, or the harming of employees or customers|| (Crino, 1994). In their study, Ambrose et al. (2002) analyzed data recorded in 132 sabotage case interviews and showed that: (1) distributive injustice

prompted employees to engage in sabotage behavior aimed at restoring equity; (2) when the source of injustice was procedural, saboteurs were more likely to target organizations rather than individuals; (3) when the source of injustice was interactional, employees were more likely to engage in sabotage acts that retaliate against both the organization and other employees; and (4) there was an additive effect of distributive, procedural, and interactional justice on the severity of sabotage. This study suggests that not only is injustice a dominant antecedent of sabotage, but also that each type of justice has relative importance for the saboteur to determine the target of sabotage behaviors.

- 2) Theft, dimension of counterproductive work behaviour was found positively significantly correlated with procedural justice and interaction justice, dimensions of organization justice in JMS-1 officers of Indian public sector banks. Theft is a dimension of CWB, through which the employee intends to intentionally harm the organization (Niehoff and Paul 2000) and it can be a form of falsified records, forgery, payroll frauds (Gabbidon et al. 2006) and stealing cash (Schmidtke 2007). It is a problem for all business and all sectors including the public sector organizations (Saucer 2007). Similarly when employee remain absent, takes unauthorized breaks, attends late, leaves early or take a fake sick leave, the employee is involved in time theft. Penney and Spector (2002) asserted that when employees confronted with stressful conditions, high-negative affectivity individuals may ascribe more malicious motives to the actor leading to increased negative emotional arousal which may lead to CWB.

*Employee theft* is often viewed as the expression of a grievance or a specific reaction to underpayment inequity. Greenberg (1990, 1993b) conducted a series of studies to investigate the effect of pay inequity on employee theft. In the first study (1990), he conducted a field experiment in manufacturing plants during a period of temporary pay deduction. Among the workers, those who experienced pay cuts had significantly higher theft rates than those who did not experience pay cuts. Further, adequate explanations about the pay cuts reduced feelings of inequity and theft rate. In a follow-up study (1993b), the author conducted a test under a controlled experimental condition in which distributive justice (pay equity) and interactional justice (the amount of information provided and the level of sensitivity in which information was conveyed about the pay inequity) were manipulated. Results indicated that distributive justice had a direct effect of theft. Interpersonal injustice had no main effect on theft when the outcome distribution was fair. However, under the condition of pay inequity, interactional injustice interacts with distributive justice to lead to higher level of theft than distributive justice alone. Together, these findings support the prediction that distributive unfairness can lead to deviant behavior, and that high levels of interactional justice can mitigate the negative effect of low distributive fairness and thus reduce deviance incidents.

- 3) Withdrawal, dimension of counterproductive work behaviour was found positively significantly correlated with all the three procedural justice, distributive justice and interaction justice, dimensions of organization justice in JMS-1 officers of Indian public sector banks. One of the behavioral responses of individuals who believe they are being treated unfair is to reduce input at work, such as lowering effort levels, performance, or attendance. *Withdrawal* entails work behaviors that reduce job inputs, such as tardiness, lateness, absenteeism, and turnover (Hulin, 1991). Organizational injustice has been linked to withdrawal behaviors directly or indirectly through job satisfaction and organizational commitment. A few studies established the relationship between injustice and withdrawal behaviors. In one study, Barling and Phillips (1993) examined how three types of justice affect different organizational outcomes. The authors conducted a study using a vignette manipulation among 213 full-time university students. MANCOVA results indicate that interactional justice influenced trust in management, affective commitment, and withdrawal behavior (measured by increased absenteeism and tardiness). Procedural justice influenced trust in management, but not withdrawal, while distributive justice did not have a significant effect on any of the outcome variables.

In another study, Gellatly (1995) examined whether absenteeism was affected by perceptions of interactional justice, age, organizational tenure, affective and continuance commitment, and the perceived absence norm in the employees' work unit or department. One hundred and sixty-six nursing and food services employees in a mid-size chronic care hospital provided attitudinal and perceptual data on an employee survey. Absence data (absence frequency and total days absent) were collected during the 12-month period immediately following the employee survey. The author tested the hypothesized relationship between the various individual- and group-level factors and employee absenteeism in a structural model using LISREL. The results supported a significant effect of interactional injustice on absenteeism.

For further, future research studies the designed model results can be tested by conducting cross-cultural studies in public sector banks of various countries.

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**COLLEGE STUDENTS ATTITUDE TOWARDS GREEN PRODUCTS IN TIRUNELVELI CITY**

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**ABSTRACT**

Green marketing is a concept emerged with the reason of saving environment simultaneously companies who are earning profits along with optimum utilization of the available resources. In a modern economic world, companies introduced their products in the market with the green claims in which claims would be compatible to their products. Consumers are considering the environment and switchover their consumption behaviour towards the green claims products. This study focuses on the college students about their environmental awareness, purchase behaviour, satisfaction while purchasing the green claims products. By using convenience sampling 293 sample size of the respondents are met through interview schedule. The data are analyzed through percentage analysis, weighted average method, Chi-square, and Anova and it is made with the help of SPSS 16. This study concludes that awareness of the consumers about the green products are not upto the mark.

**KEYWORDS**

Consumers Attitude, Consumers behaviour, Environmental concern, Green Marketing, Green products.

**INTRODUCTION**

Green marketing is the marketing of products that are presumed to be environmental safe. Thus green marketing incorporate a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Green marketing is the new concept to the Indian consumers but it can be changed only with the help of consumers awareness towards the green products. Consumers behaviour are changed in every minutes due to the changing of marketing trends. Now a days consumers are knowingly or unknowingly considering the environmentally friendly symbol in the products due to the influence of the company introduction of the products with environmentally friendly nature.

**WHY COMPANIES GO FOR GREEN MARKETING**

The followings are the reasons for the companies to go for green marketing.

**SOCIAL RESPONSIBILITY**

The surf Excel detergent which saves the water (advertise with the message "do bucket paani roz bachana") and LG, Haveels are examples for energy saving, Nokia and Hcl, Dell companies are also involved in recycling their e-waste.

**GOVERNMENT PRESSURE**

In India especially in Tamilnadu, government take various measures to save the environment and nature. For example, the banned plastic bags in Tirunelveli, prohibition of smoking in public areas etc.

**COST REDUCTION**

Many companies' waste are utilized by another company as prime raw material for their production process. For example, fly ash is generated by thermal power plant and this waste was utilized to manufacture the fly ash bricks for green building construction purposes.

**COMMUNITY PRESSURE**

Local community shows their agitation against the business which pollutes the nature.

**STATEMENT OF THE PROBLEM**

Environment is created by the god for the comfortable life of the human being but this environment is destructed by the human beings for their luxurious life. In ancient days due to the improper consumption of energy, water, minerals and all resources are depleted and environment also degraded. These activities impact to present days environment is changed into not suitable for the living of human beings, it is due to the reason of resources are limited but human needs are higher. In India environmental evils such as climate change, pollution, low rain, deforestation, improper consumption pattern of the people and population growth are the consequences of environment degradation. Due to the environmental problems, various pressures are imposed by the government, public, investors to companies offered their product with environmental claims with the focus of sustainable use of natural resources, proper reduction and disposal of wastes, energy conservation, providing safety service to the consumers. In order to protect the environment, various legislations and organizations are established by the government to save the environment. Consumers are also modifying their buying behaviour and think that development of the economy is a needed one but sustainability of the environment is the necessary one for the everlasting life of the human being. So, this research is focused with the objectives of environmental attributes considered by the college students while purchasing the products.

**OBJECTIVES OF THE STUDY**

1. To assess the impact of the different products to the environment
2. To know the influencing person to buy the green products
3. To identify the sources of information about the green products
4. To study the opinion of the respondents towards the role of government to save the environment
5. To determine the willingness of the respondents for paying the extra price for the green products
6. To analyze the relationship between the sex and attributes of the green products
7. To analyze the level of satisfaction of the respondents towards the green products

**RESEARCH METHODOLOGY****PRE-TEST AND FINALIZATION OF INTERVIEW SCHEDULE**

Rough Interview schedule was prepared and correction was also made in the variable of the Interview schedule according to the objectives of the study and also pre-test was conducted with sample size of 30 respondents and it was entered in the excel sheet, run in the SPSS and check the reliability of the variables scale items with the Cronbach's Alpha index. Based on the Cronbach's Alpha value of above .7 of the variable only was taken in the Interview schedule for the study. The Interview schedules consisted of the profile of the respondents, awareness about environment degradation, environment degraded products, government role, buying behaviour, and satisfaction of green product attributes. Before the pre-test, Government role variable in the questionnaire were asked in the five point scale, then these variable are changed into multiple options questions due to the Cronbach's Alpha Index value of 0.3. After this process, Interview schedule was finalized for the data collection.

**TOOLS USED FOR DATA COLLECTION**

Data were collected through Interview schedule. 293 of various college students were directly met by the researcher and Interview schedule was filled with the responses of the college students.

**SAMPLING DESIGN**

Convenience sampling method was used to collect the responses from the sample size of 293 respondents.

**STATISTICAL TOOLS**

Statistical tools are used to analyze the relationship between categorical variables. In this study percentage analysis, weighted average method, chi square analysis, and Anova were used.

**REVIEW OF LITERATURE**

Aditya maheswari and Gujan malthotre (2011) wrote an article entitled "Green marketing: A study on Indian youth". This study focus on the awareness, perception and parameters considered by the consumers while purchase the green products. Statistical tools like percentages and one way anova were used, to analyse the purchase behaviour through parameters considered by the consumers while purchasing the products such as price, availability, convenience, brand name and variety of the products. They found that brand name is the significant factor considered by the respondents while purchasing the green products rather than all the product variables adopted in the study. Finally they concluded that majority of the consumers are confused with the information provided in the products related with the green attributes, so consumers are needed to be educated with the green claims in the products.

Ishawini and Sarojkumar Datta (2011) in their paper analysed with the objective of pro environmental concern and its influence to green purchase behaviour of the consumers. In order to achieve the objectives consumers preference, pro environmental concern, and knowledge about the environmental issues are the variables used. Correlation analysis reveals that pro environmental concern and green buying behaviour are significantly related. This study concludes that educated consumers are high concern towards the environment, so companies may focus on the segment of educated consumers for green products.

Ronald Drozdenko et al.,(2011) in their study entitled with "pricing of green products, premium paid, consumer characteristics and incentives". The study focus on customers perception towards the price premium of green products based on the demographic, situational, and product categories. From the study, they found that male customers are willing to pay extra for green products, and also there was no significant difference in purchase behaviour of the consumers while purchasing the green products based on their income and education. They suggested that tax incentives were highly influence the consumers for willing to pay the green products.

Afzaal Ali and Israr Ahmad (2012) focused on the factors that influence the green purchase intension of the consumers. To fulfill the objectives the study organization green image, environment knowledge, environment concern; perceived product price and quality are the variable used. They found that organization green image, environmental knowledge, environmental concern, perceived product price and quality are the influential factors to the green purchase behaviour of the consumers. So green companies are offer price and quality of the product with the identical one to motivate the consumers towards the green products.

Aysel Boztepe (2012) in his research paper he found that environmental awareness, price, product features, promotion are the variables of green product influencing the purchase behaviour of male consumers but promotion is the only variable influence the purchase behaviour of female consumers and also mentioned that environment awareness, green product features, price and promotion are significantly related with green purchase behaviour. Finally he suggested that there is a significant difference between the male and female consumers while purchase the green products, so companies are focus the different strategies on gender basis.

**FINDINGS AND DISCUSSION****PROFILE OF THE RESPONDENTS**

To study the profile of the respondents, this study covers the respondents' sex, age, course of study, religion, parents' monthly income, and place of residence.

**TABLE 1: RESPONDENTS' PROFILE**

Factors		No. of Respondents	Percentage to Total N=293
Sex	Male	180	61.4
	Female	113	38.6
Age	17 to 20 yrs	150	51.2
	21 to 23 yrs	106	36.2
	Above 23 yrs	37	12.6
Course of study	UG Level	190	64.85
	PG Level	103	35.15
Religion	Hindu	187	63.8
	Christian	97	33.1
	Muslim	9	3.1
Parents monthly income	Below 10000	172	58.7
	10001 to 20000	80	27.3
	20001 to 30000	22	7.5
	30001 to 40000	13	4.4
Place of residence	Above 40000	6	2.0
	Urban	125	42.7
	Rural	168	57.3

Source: Primary Data

From the Table 1 it is inferred that 61.4 percent of the respondents are males and 64.85 percent of them are having the educational qualification of Under Graduate level, 87.4 percent of them belong to below 23 years of age, majority of them are Hindu, and a sizeable portion of their parental monthly income are below Rs.20000, About 57.3 percent of them are in rural area and the rest are in the Urban centre.

**IMPACT OF THE PRODUCTS TO THE ENVIRONMENT - WEIGHTED AVERAGE**

In the competitive business environment, companies introduced their products in the market without considering the green claims of the products. But after the usage of the products, it has created detrimental to the environment. Table 2 shows the major five products and its impact to the environment.

**TABLE 2: IMPACT OF THE PRODUCTS TO THE ENVIRONMENT**

PRODUCTS	I 5	II 4	III 3	IV 2	V 1	Total respondents	Weighted Total	Weighted Average	RANK
Polythene products	103	103	47	24	16	293	1132	2.14	I
Plastic products	93	97	54	27	22	293	1091	2.27	II
Chemical products	63	64	84	40	42	293	945	2.77	III
e-waste	20	16	52	121	84	293	646	3.79	V
Unbranded products	14	13	56	81	129	293	581	3.74	IV
Total respondents	293	293	293	293	293	----	-----	----	----

Source: Primary Data

Table 2 reveals that the respondents rank the products based on the impact made to the environment. It is found that the first rank was given to polythene product with the score of 1132, second rank was given to plastic products with the score of 1091, chemical products was given with third rank with the value of 945, fourth rank was named by e-waste, fifth rank was granted to unbranded products with the value of 581.

**PERSON INFLUENCE TO BUY THE GREEN PRODUCTS**

Every purchase decision of the customers is influenced by themselves or others. In this research, myself, parents, and friends are the persons who influence to buy green products.

**TABLE 3: PERSON INFLUENCE TO BUY THE GREEN PRODUCT**

Particulars	No. of Respondents	Percentage to Total
Myself	165	56.3
Parents	98	33.5
Friends	30	10.2
<b>Total</b>	<b>293</b>	<b>100</b>

Source: Primary Data

Table 3 explains the persons influence to buy the green product, 165 respondents said that their purchase decision were taken by themselves, 98 respondents said that their purchase decision were influenced by parents and the rest were influenced by the friends. It is however concluded that majority of their decisions were made by themselves.

**SOURCES OF INFORMATION ABOUT THE GREEN PRODUCTS**

In a modern marketing world, consumers aware about the green products through various sources such as friends, relatives, newspaper, magazine, television and so on. Table 4 pinpoints the sources of information about the green product.

**TABLE 4: SOURCES OF INFORMATION ABOUT THE GREEN PRODUCTS**

Particulars	No. of respondents	Percentage N=293
Friends	132	45.05
Relatives	34	11.6
Internet	48	16.4
News paper	76	25.9
J&M	24	8.19
Books	25	8.5
Seminar and Conferences	19	6.5
Others specify	1	0.34

Source: Primary Data

About 45.05 percent of the respondents aware about the green product through friends followed by newspaper and internet and the rest are relatives, journals and magazines, books seminar and conferences.

**OPINION OF THE RESPONDENTS TOWARDS GOVERNMENT ROLE TO SAVE THE ENVIRONMENT**

Government plays vital role in the part of to save the environment. Table 5 explains the respondents' expectation on government role to save the environment.

**TABLE 5: GOVERNMENT ROLE**

Particulars	No. of respondents	Percentage N=293
Provide tax incentive to environmental friendly companies	84	28.66
Take action against most polluting companies	125	42.66
Formulate strict rules	124	42.32
Separate waste as recyclable and non recyclable one	70	23.89
Promote campaign to create awareness	80	27.30

Source: Primary Data

About 42.66 percent of the respondents feel that government takes action against the most polluting companies, 42.32 percent view that they formulate strict rules, 28.66 percent report that provide tax incentive to environmental friendly companies.

**WILLINGNESS TO PAY EXTRA PRICE FOR GREEN PRODUCTS**

Green product prices are slightly higher than conventional products. Table 6 explains the consumers' willingness to pay extra price for the green products.

**TABLE 6: WILLINGNESS TO PAY**

Particulars	No. of respondents	Percentage to Total
Willing	115	39.25
Not willing	178	60.75
<b>Total</b>	<b>293</b>	<b>100.0</b>

Source: Primary Data

Table 6 portrays that about 60.75 of the respondents are not willingness to pay extra price for the green products and only 39.25 of them are willingness to pay extra price for green products due to various effects in the products.

**SEX AND ATTRIBUTES OF GREEN PRODUCTS**

In the research study the demographic background of the respondents are essential to know about the socio-economic conditions of the respondents. In this study under the demographic profile, six variables are used such as sex, age, course of study, parents monthly income, place of residence, religion of the respondents. But among the demographic profile sex is considered as an important one for assessing the buyers' behavior of the consumers. In order to know that Chi-square test has been applied. It is a non parametric test. The Null hypothesis is that there is no significant difference between the sex and attributes of green products.

**TABLE 6: RELATIONSHIP BETWEEN SEX AND ATTRIBUTES OF GREEN PRODUCTS**

Sex	EI	HI	SI	SWI	NI	NA	Total	$\chi^2$	Sign.
<b>Comfort and Convenience</b>									
Male	47	78	42	7	6	0	180	22.036	.000**
Female	57	33	12	5	6	0	113		
Total	104	111	54	12	12	0	293		
<b>Ingredients</b>									
Male	28	48	70	19	12	3	180	9.011	.109
Female	11	43	34	9	12	4	113		
Total	39	91	104	28	24	7	293		
<b>Brand</b>									
Male	75	62	28	7	8	0	180	22.256	.000**
Female	24	35	30	14	10	0	113		
Total	99	97	58	21	18	0	293		
<b>Safety</b>									
Male	88	58	25	5	4	0	180	16.573	.002**
Female	43	27	25	14	4	0	113		
Total	131	85	50	19	8	0	293		
<b>Quality</b>									
Male	90	47	35	7	1	0	180	26.351	.000**
Female	38	31	20	10	14	0	113		
Total	128	78	55	17	15	0	293		
<b>Consumption pattern</b>									
Male	40	71	55	8	6	0	180	19.103	.002**
Female	27	26	36	9	10	5	113		
Total	67	97	91	17	16	5	293		
<b>Performance</b>									
Male	70	64	33	11	2	0	180	18.898	.001**
Female	26	36	28	14	9	0	113		
Total	96	100	61	25	11	0	293		
<b>Availability</b>									
Male	64	53	39	15	9	0	180	18.387	.001**
Female	28	20	42	8	15	0	113		
Total	92	73	81	23	24	0	293		
<b>Multi-Utility</b>									
Male	64	58	40	11	7	0	180	8.860	.065
Female	29	31	30	16	7	0	113		
Total	93	89	70	27	14	0	293		
<b>Attractive packaging</b>									
Male	47	52	53	16	12	0	180	1.476	.831
Female	25	33	32	14	9	0	113		
Total	72	85	85	30	21	0	293		
<b>Offers and Discounts</b>									
Male	59	49	55	11	6	0	180	6.261	.580
Female	47	23	26	10	7	0	113		
Total	106	72	81	21	13	0	293		
<b>Durability</b>									
Male	62	58	41	13	6	0	180	5.366	.252
Female	34	31	27	11	10	0	113		
Total	96	89	68	24	16	0	293		
<b>Color</b>									
Male	52	52	54	16	6	0	180	1.530	.821
Female	37	34	27	10	5	0	113		
Total	89	86	81	26	11	0	293		
<b>Quantity</b>									
Male	57	55	44	18	6	0	180	1.602	.808
Female	43	29	25	12	4	0	113		
Total	100	84	69	30	10	0	293		
<b>Design</b>									
Male	51	52	54	16	7	0	180	4.615	.329
Female	26	44	28	8	7	0	113		
Total	77	96	82	24	14	0	293		
<b>Environment benefits</b>									
Male	40	49	53	24	14	0	180	1.549	.818
Female	28	24	34	16	11	0	113		
Total	58	73	87	40	25	0	293		
<b>Price</b>									
Male	68	49	47	13	3	0	180	8.935	.025**
Female	39	25	30	10	6	3	113		
Total	107	74	77	23	9	3	293		

Cost of Alternatives									
Male	54	64	42	16	4	0	180	7.326	.120
Female	34	33	25	11	10	0	113		
Total	88	97	67	27	14	0	293		
Government rules									
Male	66	44	39	16	15	0	180	2.794	.593
Female	31	31	27	12	12	0	113		
Total	97	75	66	28	27	0	293		
Intensity of need									
Male	65	62	41	8	4	0	180	13.061	.011**
Female	39	26	26	13	9	0	113		
Total	104	88	67	21	13	0	293		
Affordability									
Male	38	63	58	16	5	0	180	11.182	.025**
Female	40	26	31	9	7	0	113		
Total	78	89	89	25	12	0	293		
Demonstration and pretest									
Male	38	62	58	14	8	0	180	8.818	.066
Female	30	23	37	16	7	0	113		
Total	68	85	95	30	15	0	293		
Disposal									
Male	41	66	52	12	8	1	180	8.247	.143
Female	23	43	24	16	4	3	113		
Total	64	109	76	28	12	4	293		
Maintenance									
Male	58	62	43	13	4	0	180	8.232	.083
Female	32	31	30	10	10	0	113		
Total	90	93	73	23	14	0	293		
Recycle symbol									
Male	43	42	37	35	21	2	180	4.861	.433
Female	16	30	26	24	14	3	113		
Total	59	72	63	59	35	5	293		
Energy star symbol									
Male	67	40	41	17	14	1	180	14.082	.015**
Female	30	18	24	18	21	2	113		
Total	97	58	65	35	35	3	293		

Source: Primary Data

(\*\* indicate that at 5% significance level null hypothesis rejected)

There are 26 attributes identified by the researcher. It is found through the chi-square test that the sex influence the attributes like comfort and environmental benefits, quantity design and so on because the 'P' is less than 0.05 and the null hypothesis is rejected. Moreover sex does not influence the attributes like comfort and convenience, brand and so on because the null hypothesis is accepted.

**DEMOGRAPHIC PROFILE AND THE SATISFACTION OF GREEN PRODUCT**

Satisfaction of the customer is always varied between one and another. Table 7 explains the satisfaction of the green product attributes and the demographic profile of the respondents. The demographic profile normally influence the level of satisfaction. In order to know it, the F test has been used. The null hypothesis is that the demographic profile do not influence satisfaction of green product.

**TABLE 7: DEMOGRAPHIC PROFILE AND THE SATISFACTION OF GREEN PRODUCT**

		Sum of squares	Df	Mean square	F	Sig.
<b>Sex</b>						
Satisfaction of Green product	Between Groups	943.525	1	943.525	9.195	.003**
	Within Groups	29861.390	291	102.616		
	Total	30804.915	292			
<b>Age</b>						
Satisfaction of Green product	Between Groups	66.506	2	33.253	.314	.731
	Within Groups	30738.408	290	105.995		
	Total	30804.915	292			
<b>Course of study</b>						
Satisfaction of Green product	Between Groups	505.554	1	505.554	4.855	.028**
	Within Groups	30299.360	291	104.122		
	Total	30804.915	292			
<b>Religion</b>						
Satisfaction of Green product	Between Groups	311.887	2	155.943	1.483	.229
	Within Groups	30493.028	290	105.148		
	Total	30804.915	292			
<b>Parents monthly income</b>						
Satisfaction of Green product	Between Groups	2802.774	4	700.694	7.207	.000**
	Within Groups	28002.141	288	97.230		
	Total	30804.915	292			
<b>Place of residence</b>						
Satisfaction of Green product	Between Groups	300.951	1	300.951	2.871	.091
	Within Groups	30503.963	291	104.825		
	Total	30804.915	292			

Source: Primary Data

(\*\* indicate that at 5% significance level null hypothesis rejected)

From the table, it is found that sex, course of study, and parents monthly income influence the satisfaction of green products because the 'P' value is less than 0.05. Moreover age, religion, place of residence does not influence the level of satisfaction of green product. The Null hypothesis is accepted because the 'P' value is greater than 0.05.

### SUGGESTIONS

- Awareness about the green product among the students are not in the high level so it may be improved through effective advertisement in the newspaper and internet because majority of the respondents is known about the green product through news paper and internet.
- Price of the green product may be slightly reduced by the green companies because students are considered that the price of this product is higher and they also fully depend on parents for their financial sources to purchase the products.
- Students are considering the brand and quality of the product so the branded companies may give much importance to the quality of the green products.
- Majority of the respondents view that Government should take action against the polluting company to the environment.
- Students are purchasing the product without understanding the green claims in the product so they may educate through the subject like environment and green marketing.

### CONCLUSION

From the study the researcher understands that awareness of the green product is not upto the mark among the students, and they are not willingness to pay little extra price for the green products and not satisfied with the affordability of the green products and also they consider the brand and quality in their purchase decision. This research is useful for business, government, and also researchers those who are involved in the field of green marketing and buying behaviour and conservative environmental behaviour of the students.

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## COMPARATIVE PERFORMANCE EVALUATION OF SELECTED AUTOMOBILE COMPANIES IN INDIA USING EVA AND MVA MEASURES

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### ABSTRACT

*Maximizing shareholders value has become one of the new corporate practices in recent years. The Companies, which have given less preference to shareholders curiosity, are now giving the utmost preference to it. Shareholder's wealth is measured in terms of returns they receive on their investment. It can either be in forms of dividends or in the form of capital appreciation or both. Capital appreciation depends on the changes in the market value of the stocks. The market value of stocks depends upon number of factors varying from company specific to market specific. Financial information is used by various stakeholders to evaluate company's current performance and to forecast the future as well. In the present study two distinctive approaches i.e., Economic Value Added and Market Value Added have been used to measure the existing financial condition and forecasting the future performance of selected automobile companies in India. The study clearly concluded that the performance of Maruti Suzuki India Ltd. and Mahindra & Mahindra Ltd. found satisfactory with consistent returns to the shareholders.*

### KEYWORDS

Economic Value Added, Market Value Added, Mean, Standard Deviation, Co-efficient of Variation, NOPAT, Weighted average cost of capital.

### 1. INTRODUCTION

The increasing intensity of global business competition has led companies to use different types of performance evaluation tools for examining their financial situation. Generally, performance evaluation of the companies is conducted within the context of financial statement analysis. As the financial performance has a broad concept, including economic growth, return, and productivity, using the value added measures like EVA and MVA in the performance assessment can be appropriate for companies and their counterparts. For several years, numerous studies in the literatures have revealed the benefits of the EVA and MVA measures. Using them, all the stakeholders would be able to summarize and analyze related quantitative information to obtain momentous data for appraising the firm's operation, investigating its situation in the automobile sector, and making financial decisions.

Financial evaluations encourage companies to attain a higher level of performance by showing current financial position of a company in relation to other companies and creating a competitive environment. Such evaluations are also helpful in improving weaknesses which is done through recognition of the strengths of performed activities. To this end, the present study has made an attempt to evaluate corporate performance through data analysis and has examined the performance of a group of automobile companies. To do so, the means of financial performance for a five year period including: Market Value Added and Economic Value Added are employed in the study. The companies were further ranked on the basis of Mean EVA and MVA to assess their overall performance.

### INDIAN AUTOMOBILE INDUSTRY

History of Indian automobile industry reveals that it has grown with leaps and bounds since 1898, a time when a car had touched the Indian streets for the first time.

The automotive sector in India, comprising of the automobile and auto component sub sectors, is one of the key segments of the economy having extensive forward and backward linkages with other key segments of the economy. It contributes about 4% to India's Gross Domestic Product (GDP) and 5% to India's industrial production. The well-developed Indian automotive industry competently fulfills this catalytic role by producing a wide variety of vehicles like passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles such as jeeps, scooters, motorcycles, mopeds, three wheelers, tractors etc.

Rothschild, a UK-based global financial advisory firm, predicts that India would become the third largest auto industry by volumes by 2015. The Indian automobile industry today boasts of being the second largest two wheeler manufacturer in the world, the largest three wheeler market, the second largest tractor manufacturer in the world, the fourth largest car market and fifth largest commercial vehicle manufacturer in the world.

The government of India has recognized the automotive industry as a focus industry for Foreign Direct Investment (FDI) given its importance from an employment generation perspective. To accelerate and sustain growth in the automotive sector, the "Automotive Mission Plan: 2006-2016" has been made in order to make India a global automotive hub. The Plan, aims at doubling the contribution of automotive sector to GDP by taking the turnover to USD 145 billion and providing employment to 25 million people by 2016.

Foreign Direct Investment (FDI) up to 100% is allowed under automatic route in the automotive sector.

Government to introduce new fuel mileage standards and labeling for new cars beginning 2015, giving manufacturer's time to introduce and invest in new technology. The cumulative production for financial year April 2011 to March 2012 registered a growth of 13.83% per cent over April 2010 to March 2011, manufacturing 20.3 million vehicles during the period. While Passenger vehicle segment grew at 4.72% during April 2011 to March 2012, overall commercial vehicle segment registered an expansion of 19.83% per cent year-on-year (y-o-y). ([http://www.cgiguangzhou.gov.in/business/business\\_details/9](http://www.cgiguangzhou.gov.in/business/business_details/9)).

The industry exported 2.9 million units showing a growth of 25.44% in April 2011 to March 2012.

As per the 2011-12 data released by the Society of Indian Automobile Manufacturers (SIAM), domestic vehicle market is dominated by two-wheelers segment with 76.9% of the pie. Passenger vehicles, commercial vehicles and three-wheelers account for 15.3%, 4.5% and 4.3% of the market, respectively.

Hero Motor Corp rules the two-wheeler market with 56% of the share. Maruti Suzuki holds its leader position in passenger vehicle segment with 38% of the pie, while Hyundai follows with 15% of the share.

For passenger vehicle segment, the share of the entry-compact segment (that consists of cars like the Tata Nano, Maruti Alto, Ford Figo, Maruti WagonR, Hyundai's Santro, i10 and Eon and GM's Beat) stood at 47% in 2011, while premium compacts (like Maruti Swift, Hyundai i20 and VW Polo) maintained their share of 11%. Sports-utility vehicle (SUV) segment registered the fastest growth rate (32%) to capture over 18% of the market share, while Sedans had 19% of the pie.

According to the estimate of Society of Indian Automobile Manufacturers that by 2015 annual vehicle sales will increase to 5 million and more than 9 million by 2020. By 2050 with approximately 611 million vehicles, India will be having largest number of cars in the world.

With increasing export and domestic market, Indian automobile industry is riding high on success. But success has to solve many existing complexities and challenges which are hampering its growth to a great extent. The present study includes measures to analyze and examine the relative performance of selected Indian automobile companies and to investigate their risk and returns factors, their market position, their collective impact on profitability and to come up with the best and worst performing company by ranking them according to their achieved performance.

**SELECTED AUTOMOBILE COMPANIES IN INDIA**

- 1. MARUTI SUZUKI INDIA LIMITED:** Maruti Suzuki India Limited formerly known as Maruti Udyog Limited is an automobile manufacturer in India. It is a subsidiary of Japanese automobile and motorcycle manufacturer Suzuki. It has a distinction of country's largest car manufacturing company and command the car industry market with a market share of over 80%. To capitalize growing demand world giant automobile manufacturers have entered Indian market with confidence and posing threat to a market leader Maruti Suzuki.
- 2. TATA MOTORS LIMITED:** Tata Motors Limited (formerly TELCO) is an Indian multinational automotive manufacturing company and a subsidiary of the Tata Group. Its products include passenger cars, trucks, vans, coaches, buses, construction equipment and military vehicles. It is the world's 17th-largest motor vehicle manufacturing company, fourth-largest truck manufacturer, and second-largest bus manufacturer by volume.
- 3. MAHINDRA & MAHINDRA LIMITED (M&M):** is an Indian multinational automobile manufacturing corporation headquartered in Mumbai, Maharashtra, India. It is one of the largest vehicle manufacturers by production in India and the largest seller of tractors across the world. It is a part of Mahindra Group, an Indian conglomerate. It has been ranked as the 10th most trusted brand in India, by The Brand Trust Report, India Study 2014. Its major competitors in the Indian market include Maruti Suzuki, Tata Motors, Ashok Leyland, Toyota, Hyundai, and others.
- 4. FORCE MOTORS LIMITED:** The company was formerly called Bajaj Tempo Limited which is a Firodia Enterprise Company established in 1958. Force Motors Limited is totally vertically integrated automobile company, which is expertise in design, development and manufacture of the full spectrum of automotive components and aggregate & vehicles. Force Motors manufactures a range of vehicles including Small Commercial Vehicles (SCV), Light Commercial Vehicles (LCV), Multi Utility Vehicles (MUV), Sports Utility Vehicles (SUV), Heavy Commercial Vehicles (HCV) and Agricultural Tractors.

**2. LITERATURE REVIEW**

Historically, many studies have been carried out to compare the financial characteristics of automobile sector and different groups of organizations. Most notable are, Mecimore (1968); in his study by using descriptive statistical measures observes cross-sectional non-normality and positive skewness for twenty ratios in a sample of randomly selected forty-four Fortune-500 firms, Deakin (1976); in his study using chi-square rejected the normality of eleven ratios. He stated that there are less extreme deviations from normality after applying square root and logarithmic transformations; he also observed that normality was not supported as it should be, Bougen and Drury (1980); in their study recommended non normality based on cross section of 700 UK firms, Chen and Shimerda (1981); in their study stated that there are 41 different financial ratios which were earlier used sufficiently in studies and observed that it is difficult to select ratio with the approximate and absolute factors loading as the representative financial ratio for the observed factors, Schmidgall (1989); in his study clearly stated that financial ratios are the most meaningful information in financial statements to automobile executives and managers, Virtanen and Yli-Olli (1989); in their study examined the temporal behavior of financial ratio distributions and found that business cycle affects the cross sectional financial ratio distributions, Tippett (1990); in his study examined models financial ratio in terms of stochastic processes and found that in general inference normality will be the exception rather than the rule, Andrew and Schmidgall (1993); in their study classified financial ratios into five categories "liquidity ratios, solvency ratios, activity ratios, profitability ratios, and operating ratios". They observed that financial ratios themselves do not provide valuable information about a firm's performance, Andrew (1993); in his study conducted on automobile industry examined the leverage ratio of companies and suggested a value-maximizing capital structure, *Dr. Sagan C. Jain (2002)*; in his study examined the performance of automobile industry. He applied composite index approach to analyze the operational efficiency and profitability and suggested to strengthening the soundness, profitability, working capital and in the performance of fixed assets, Harrison (2003); in his study argued that financial ratio analyses are very useful. During his study he found that financial ratios analysis are also effective in automobile industry, it helps governing body to determine effective and efficient strategies and identify the weak areas which need attention, Ben McClure (2004); revealed that each industry is different in terms of its customer base, market share among firms, industry wide growth, competition, regulation and business cycles, Dr S.M.Tariq Zafar (2009); in his study covered and examined automobile industry and concluded that industry is in upward swing and will grow with decent pace and recommended that fundamental of industry have to be truly adjudicated in order to consolidate investors sentiment for long run.

Maximizing shareholders value has become the new corporate practice in recent years. The Companies, which have given lesser preference to shareholders curiosity, are now giving the utmost preference to it. Shareholder's wealth is measured in terms of returns they receive on their investment. It can either be in form of dividends or in the form of capital appreciation or both. Capital appreciation depends on the changes in the market value of the stocks. The market value of stocks depends upon number of factors varying from company specific to market specific.

The empirical studies highlighted that there is no single accounting measure which explains the variability in the shareholders wealth (Chen and Dodd, 1997; Rogerson, 1997). Any financial measures used in assessing firm's performance must be highly correlated with shareholders wealth and on the other hand should not be subjected to randomness inherent in it. Traditional performance measures such as NOPAT, EPS, ROI, ROE etc. have been criticized due to their lacking ability to incorporate full cost of capital thereby accounting income is not a consistent predictor of firm value and cannot be used for measuring corporate performance. Value based management system has gained popularity in academic literature in last two decades. One such innovation in the field of internal and external performance measurement is EVA.

Pioneered and advocated by US based business consultant Stern Stewart and company state that EVA can be used instead of earnings or cash from operations as measures of both internal and external performance. "Abandon earnings per share", "Earnings, earnings per share, and earnings growth are misleading measures of corporate performance" and "The best practical periodic performance measure is EVA" (Stewart 1991). Further to support his hypothesis that EVA is a better performance measures than other performance measures Stewart (1994) cites in-house research indicating that "EVA stands well out from the crowd as the single best measures of value creation on continuous basis".

Pal and Sura (2007); reviewed 25 empirical studies published in various journals related to relationship of EVA and stock returns. They have only reviewed the results of the studies and have not considered other issues prevalent in EVA research such as EVA-MVA relationship, EVA and discounting techniques, other residual income based techniques, EVA implementation and EVA and managerial performance and control.

Proponents of EVA claim that EVA is highly correlated with stock returns. EVA derives stock prices (Stewart, 1995; Medeiros, 2005) better than other accounting based performance indicators. Lefkowitz (1999); analyzed the US companies and results of the study supported Stern- Stewart hypothesis, i.e., EVA is better correlated with stock returns as compared to traditional performance measures. They found that EVA is reasonably reliable guide to understand the firm's value. Machuga (2002); in their study highlighted that EVA can be used to enhance future earnings predictions. Stewart (1991); examined the relationship between EVA and MVA of US companies and found a stronger correlation between EVA and MVA. Kramer and Pushner (1997); studied the strength of relationship between EVA and MVA. They found that MVA and NOPAT were positive on average but the average EVA over the period was negative. EVA unlike other earnings measures is systematically linked to the market value and it is powerful tool for understanding the investor expectations (O' Byrne, 1996; Finegan, 1991). Ghanbari and More (2007); analyzed the relationship between EVA and MVA of automobile industry in India and results indicate that there are strong evidences to support Stern-Stewart's claim.

There are some studies which claim that traditional measures have better correlation with MVA. Fernandez (2001); examined the correlation between EVA and MVA of 582 American companies for the period 1983-97. It was shown that for 296 firms in the sample the changes in the NOPAT had higher correlation with changes in MVA than the EVA, while for 210 sample firms the correlation between EVA and MVA was negative. Wet (2005); conducted a study on EVA-MVA relationship of 89 Industrial firms of South Africa and found that EVA did not show the strongest correlation with MVA. As evident from the literature, EVA has been the topic of interest for researchers. Majority of the studies relate to EVA & stock returns and its comparison with traditional measure of corporate performance. The present study has been conducted to examine the performance of selected automobile companies during 2010 to 2014.

**3. OBJECTIVE OF THE STUDY**

The main objective of the study is to evaluate the performance of the selected automobile companies in India by applying EVA and MVA measures. After judicious evaluation of EVA and MVA performance parameter, companies are ranked according to their performance.



#### 4. METHODOLOGY

The study has been conducted with special reference to four most preferred and trusted Indian private sector company i.e., Maruti Suzuki India Limited, Mahindra & Mahindra Limited, Tata Motors Limited and Force Motors Limited. The study period is of five year duration i.e., March 2010 to March 2014 and the secondary data for analysis have been collected from published reports, magazines, annual reports and website of the companies. The following two measures have been used to evaluate the performance of selected automobile companies for the period under study.

##### CALCULATION OF EVA AND MVA

$EVA = NOPAT - COCE$

$COCE = W1.Kd + W2.Ke$

$Kd = \text{cost of debt}$

$Kd = I(1-t)$

$t = \text{tax rate}$

$I = \text{interest rate}$

$Ke = \text{cost of equity} = \text{dividend}/Po + g$

$Po = \text{price of share}$

$g = Ke \times \text{Retention ratio}(b)$

$b = \text{EPS-DPS}/\text{EPS}$

MVA is calculated as below:

$MVA = (\text{Closing share price} \times \text{No of outstanding share}) - \text{Net Worth}$

#### 5. ANALYSIS AND INTREPRETATION

TABLE 1: EVA OF FOUR COMPANIES FOR FIVE YEARS (Rs. in Crore)

Year	Maruti Suzuki India Ltd.	Mahindra & Mahindra Ltd.	Tata Motors Ltd.	Force Motors Ltd.
2010	2472.73	2063.05	1383.09	49.27
2011	2268.79	2688.06	872.14	51.07
2012	1605.72	2754.88	404.79	801.14
2013	2263.80	3214.16	-653.49	8.42
2014	2671.56	3546.66	-590.61	72.06
Mean	2256.52	2853.36	283.19	196.39
SD	400.87	564.02	896.15	338.85
Variance	160693.55	318118.56	803084.82	114819.32
CV (%)	17.75	19.77	316.45	172.54

Table 1 states the EVA of selected automobile companies during the period of study.

##### MARUTI SUZUKI INDIA LIMITED

The EVA of Maruti Suzuki Ltd is high (Rs 2671.56 crore) in the year 2014. The calculated Mean EVA is Rs 2256.52 crore and the Co-efficient of Variation (CV) is 17.75 per cent shows consistent EVA of the company. Overall the company performance is satisfactory with positive EVA during the study period.

##### MAHINDRA & MAHINDRA LIMITED

The EVA of Mahindra & Mahindra is high (Rs. 3546.66 crore) in the year 2014 and low (Rs 2063.05 crore) in the year 2010. The calculated Mean EVA is (Rs 2853.36 crore) high in all during the study period. The CV is 19.77 per cent shows consistent EVA over the study period.

##### TATA MOTORS LIMITED

Except in the year 2013 and 2014, the EVA of Tata Motors is positive during the study period. The calculated Mean EVA is (Rs 283.19 crore) positive. The Co-efficient of Variation (CV) is 316.15 per cent shows inconsistent EVA of the company. The company performance is satisfactory with positive EVA.

##### FORCE MOTORS LIMITED

The EVA of Force Motors is high (Rs 801.14 crore) in the year 2012 and low (Rs 8.42 crore) in the year 2013. The calculated Mean EVA is 196.39 crore. The high Co-efficient of Variation shows inconsistent EVA of the company.

TABLE 2: MVA OF FOUR COMPANIES FOR FIVE YEARS (Rs. in Crore)

Year	Maruti Suzuki India Limited	Mahindra & Mahindra Limited	Tata Motors Limited	Force Motors Limited
2010	24018.6	-4923.2	17752.37	-107.93
2011	25453.15	-3652.19	20455.78	-4.91
2012	18528.4	-4839.09	181830.31	-210.44
2013	387718.7	-4819.37	184426.71	-312.61
2014	461292.72	-1093.41	188041.97	-608.02
Mean	183402.31	-3865.45	118501.4296	-248.78
SD	221643.17	1636.05	90768.8	231.25
Variance	49125694808	2676659.60	8238975053	53476.56
CV (%)	1.21	-0.42	0.76	-0.92

Table 2 shows the Market Value Added (MVA) of selected automobile companies for the year March 2010 to March 2014.

##### MARUTI SUZUKI INDIA LIMITED

The MVA of Maruti Suzuki Ltd is highest (Rs. 461292.72 crore) in the year 2014 and lowest (Rs. 24018.6 crore) in the year 2010. The calculated Mean MVA is Rs 183402.31 crore and the co-efficient of variation (CV) is 1.21 per cent. The company performance is satisfactory and the CV shows consistent MVA of the company.

##### MAHINDRA & MAHINDRA LIMITED

The MVA of Mahindra & Mahindra is negative during the study period. The calculated Mean MVA is (-3865.45 crore) negative along with negative CV. The company performance is not satisfactory with negative MVA.

##### TATA MOTORS LIMITED

The MVA of Tata Motors is lowest (Rs. 17752.93 crore) in the year 2010 which has been increased to 188041.97 crore in the year 2014. The calculated Mean MVA of the company is Rs 118501.43 crore and the Co-efficient of Variation (CV) is .77 per cent shows consistent MVA of the company during the study period.

##### FORCE MOTORS LIMITED

The MVA of Force Motors is negative from the year 2010 to 2014. The calculated Mean MVA (Rs -248.78 crore) is negative. Overall performance of the company is not satisfactory.

TABLE 3: RANKING OF COMPANIES BASED ON EVA AND MVA WITH RESPECT TO MEAN

Company Name	Rank based on EVA	Rank based on MVA	Average Rank	Final rank based on Mean
Maruti Suzuki India Ltd.	2	1	1.5	1
Mahindra & Mahindra Ltd.	1	4	2.5	2
Tata Motors Ltd.	3	2	2.5	3
Force Motors Ltd.	4	3	3.5	4

Table 3 shows the calculated ranks of selected automobile companies for the study period based on Mean EVA and MVA. Maruti Suzuki India Ltd. is at 1<sup>st</sup> rank, Mahindra & Mahindra Ltd. is at 2<sup>nd</sup> rank and Tata Motors Ltd. at 3<sup>rd</sup> rank based on the mean EVA and MVA. The ranking procedure indicates that Maruti Suzuki India Ltd. showing satisfactory performance during the period of study followed by Mahindra and Mahindra Ltd. and Tata Motors Ltd.

TABLE 4: RANKING OF COMPANIES BASED ON EVA AND MVA WITH RESPECT TO CV

Company Name	Rank of EVA	Rank of MVA	Average Rank	Final rank based on CV
Maruti Suzuki India Ltd.	1	2	1.5	1
Mahindra & Mahindra Ltd.	2	3	2.5	2
Tata Motors Ltd.	4	1	2.5	3
Force Motors Ltd.	3	4	3.5	4

Table 4 shows the calculated ranks of selected automobile companies for the study period based on CV of EVA and MVA. Maruti Suzuki Ltd. is at 1<sup>st</sup> rank, Mahindra and Mahindra is at 2<sup>nd</sup> rank and Tata Motors Ltd. is at 3<sup>rd</sup> rank. The ranking procedure shows that Maruti Suzuki Ltd is consistent during the period of study followed by Mahindra and Mahindra Ltd. and Tata Motors Ltd.

## 6. CONCLUSION

From the data analyzed under study related to four selected automobile companies in India using EVA and MVA measures, it is clearly found that EVA of Mahindra and Mahindra and Maruti Suzuki Ltd is satisfactory with consistent returns whereas Tata Motors Ltd. and Force Motors Ltd. showing inconsistent returns during the study period. The Mean EVA reveals that, Mahindra and Mahindra is at 1<sup>st</sup> rank, Maruti Suzuki Ltd is at 2<sup>nd</sup> rank and Tata Motors is at 3<sup>rd</sup> rank. Based on MVA, Maruti Suzuki India Ltd. and Tata Motors Ltd. showing satisfactory returns whereas Mahindra and Mahindra and Force Motors showing negative MVA. The Mean MVA reveals that Maruti Suzuki is at 1<sup>st</sup> rank and Tata Motors is at 2<sup>nd</sup> rank.

Based on Mean EVA and MVA, Maruti Suzuki is at 1<sup>st</sup> rank, Mahindra & Mahindra Ltd is at 2<sup>nd</sup> rank and Tata Motors is at 3<sup>rd</sup> rank. The ranking procedures concluded that Maruti Suzuki Ltd. is consistent in the study period followed by Mahindra and Mahindra and Tata Motors Ltd. Lastly, it is observed during the study period, that the EVA and MVA measures showing Maruti Suzuki Ltd. and Mahindra & Mahindra Ltd. having satisfactory performance with consistent returns to the shareholders. The two measures are having relative significance to examine the performance of the companies.

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## MUTUAL FUND PERFORMANCE: AN EMPIRICAL INVESTIGATION OF SELECTED EQUITY DIVERSIFIED SCHEMES IN INDIA

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### ABSTRACT

*With progressive liberalization of economic policies there has been a rapid growth of capital market, money market and financial services industry. Consistent with this evolution of the financial sector, the mutual fund industry in India has also come to occupy an important place. It has emerged as a strong financial intermediary and is playing a vital role in bringing stability to the financial system and efficiency to resource allocation. In the present paper an attempt has been made to evaluate the performance of the selected equity diversified schemes in India. The performance of selected fund is evaluated using average rate of return of fund, standard deviation, Beta, diversification, Sharpe ratio, Treynor ratio and Jensen ratio and Fama's decomposition measure. Benchmark comparison is also made as it indicates to what extent the fund managers were able to produce better performance of managed portfolio compared to the market or index portfolio. The reference period for the study is 5 years from April 2009 to March 2014. Findings of the study revealed that the majority of the schemes outperformed the market benchmark and they appeared to possess superior stock selection skill. The average daily return of all the schemes was found to be greater than the market return. However the difference was not found significant on application of t test. Majority of the fund schemes were reasonably diversified.*

### KEYWORDS

Growth Schemes, Mutual funds, Risk adjusted Return, Sharpe ratio, Treynor ratio.

### INTRODUCTION

Resource mobilization is very significant for the economic growth of a developing country like India. The Indian mutual fund industry is playing a vital role in this process of mobilization of economic resources. Over the years, the Indian mutual fund industry has evolved from a single player market in 1963, with the formation of Unit Trust of India (UTI), to a highly competitive market comprising domestic and foreign players, supported by favorable regulatory reforms.

Today the Indian mutual fund industry is one of the fastest growing sectors in the Indian capital and financial markets. The mutual fund industry in India has seen dramatic improvements in quantity as well as quality of product and service offerings in recent years. The Indian mutual fund industry has grown several folds in terms of size and operations during the past five decades of its existence. There has been substantial growth in terms of assets under management, variety of investment schemes. From a single player the number of players has increased to 42 and the number of schemes has spiraled to more than 900 with managed assets of about Rs.9Lakh crores. The growth of mutual funds has also posed difficulties to investors in making a selection of suitable schemes. A proper performance evaluation of these schemes will remove confusion and help the small investors in selecting suitable mutual fund scheme for investment. Further with growing competition in the market, the fund managers also need to satisfy themselves that management fees and research expenses are justified keeping in view the returns generated. Moreover, there is need to investigate how efficiently the hard earned money of the investors and scarce resources of the economy are being utilized by mutual funds. In this context an attempt has been made in the present paper to evaluate the performance of selected equity diversified schemes in India.

The paper is divided into six sections including the present one. Section 2 presents the brief review of literature pertaining to evaluation of mutual fund performance. Section 3 discusses the objectives of the study; the data used in the study and their sources and specifies the testable hypothesis. Section 4 presents the performance measures used and empirical results of the study. Section 5 presents the concluding remarks.

### II REVIEW OF LITERATURE

Various studies have been carried out in India and abroad to evaluate the performance of mutual fund schemes from time to time. In this study an attempt has been made to briefly review the work already undertaken and methodology employed. Brief review of select studies has been presented in the following pages.

**Jensen (1967)** investigated the predictive ability of 115 mutual fund managers in the period 1945-1964 using risk adjusted performance measure. The study concluded that on an average 115 mutual funds considered in the study were not able to predict security prices well enough to outperform a buy-the-market-and-hold policy and that there was very little evidence that any individual fund was able to do significantly better than that which we expected from mere random chance. **Musa Essayyad and H.K.Wu (1988)** investigated the performance of international mutual funds incorporated in the U.S from the investor's point of view. The study found that the U.S. International mutual funds as a group outperformed the U.S. market in terms of both returns and risk. **M Jayadev (1998)** tried to give an empirical evidence in the Indian context on the performance of Mutual fund managers. The study revealed that the returns and risk were not always in conformity with the stated investment objective. Some of the funds were able to earn higher returns due to selectivity, but failed to maintain proper balance between selectivity and diversification. Study indicated that due to lack of diversification the funds performance had declined. Further analysis with the help of Fama's measures indicated that the selectivity ability of fund managers was not satisfactory. **H.J.Sondhi, P.K. Jain (2006)** evaluated the market risk and investment performance of equity mutual funds in India. Their study showed that relationship between risk and return of the sample equity mutual funds was not necessarily in line with the premise that high risks portfolios generate superior returns. They found that sample equity mutual funds had invested in low risk securities, contrary to the basic objective of equity to generate high returns by assuming high risks. **Beehary Nitish, Rojid Sawkut (2009)** analysed the performance of Mauritian Mutual funds. The results show that the rankings obtained by applying both the Sharpe and Treynor rules are almost the same, implying that the funds appear to be well-diversified. The positive Jensen's alpha indicated that fund managers though their stock picking skills, privileged information or intuition have 'beaten the market'. Individual analysis revealed that funds are heavily dependent on the performance of the local stock market, that is they move in line with the market index and those mutual funds investing heavily in the local stock market are reported to 'beat the market'. **Aman Srivastava and Rakesh Gupta (2010)** evaluated the performance of growth oriented equity schemes of Indian mutual funds schemes during bear market.

Measures such as relative performance index (RPI), Treynor's ratio, Sharpe ratio, Sharpe's measure, Jensen's measure and Fama's measure were used in evaluation. The findings of the study suggested that majority of the mutual funds outperformed the market benchmarks. However the study also indicated that Indian fund managers were not properly diversifying their portfolios which resulted in huge losses to investors in falling markets. **Vangapandu Rama Devi and Nooney Lenin Kumar (2010)** in their study found that the returns of mutual fund schemes significantly differ from one another in the respective category for equity diversified, equity index, equity tax savings investment styles. **Shrinivas R. Patil and Prof. Prakash Rao K. S.(2011)** On the basis of the comparison of mutual fund returns with their benchmark indexes study indicated superior performance of mutual funds. It was also observed in the study that investment in mutual funds is quite sensible than direct capital market investment, not only because of return but also for risk diversification, professional management and other benefits. **Rakesh Kumar (2012)** analysed the mutual fund performance, level of diversification, manager's capability to pick the undervalued stocks and to time the market. The study revealed that 60% sampled fund schemes performed better than market. Moreover, better performing funds were exposed to higher risk but were less afflicted to market risks. A majority of the funds were reasonably diversified and reduced the unique risk. Consequently, unique risks and the returns were negatively associated. The study also exposes that about 58% of fund schemes were capable of beating the market by stock selection skills. **Deepti Sahoo and Naresh Kumar Sharma** in their study evaluated the investment performance of selected mutual funds in terms of risk-return analysis. Their study showed that performance in terms of returns was better in the case of Tax planning funds and diversified equity funds, as compared to balanced and debt funds. However, the former also had much higher risks by any measure compared to the latter. **Theodore Prince and Frank Bacon based** on the analysis of small cap growth schemes of mutual funds found an evidence in support of market efficiency since for the most part, the actively managed funds examined in their study produced returns that were largely expected.

### OBJECTIVES OF THE STUDY

The objective of the study is to evaluate the performance of open ended equity diversified Indian mutual fund schemes in the framework of risk and return during the recent five year period 1<sup>st</sup> April 2009 to 31<sup>st</sup> March 2014.

The specific objectives of the study are:

1. To evaluate the performance of selected mutual funds schemes on the basis of risk-return parameters.
2. To examine fund's sensitivity to the market fluctuations in terms of beta.
3. To study the major factors (diversification, selectivity) influencing the investment performance of the schemes.
4. To analyse the performance based the risk adjusted performance measures.

### DATA AND METHODOLOGY OF THE STUDY

The current study focuses on the performance of the fund managers of 24 equity diversified mutual fund schemes of various fund houses (with growth option). The period of the study is for 5 years from 1<sup>st</sup> April 2009 to 31<sup>st</sup> March 2014. Daily net asset values (NAVs) obtained from the official website of the association of mutual funds in India ([www.amfiindia.com](http://www.amfiindia.com)) has been used for the purpose of the study. NSE Nifty is used a benchmark portfolio and the yield on 91 day Treasury bills is considered a proxy for risk free yield. Data on NSE Nifty and 91 day Treasury bills is collected from NSE website and RBI website respectively.

**Hypothesis** The study tests the following hypothesis with regard to performance evaluation:

H<sub>0</sub>: There is no difference between the return of the equity diversified growth schemes of mutual funds and market return.

The selected 24 equity diversified mutual funds from 12 mutual funds are presented in Table I.

**TABLE 1: NAMES OF THE ASSET MANAGEMENT COMPANIES, ASSETS UNDER MANAGEMENT AS ON 31<sup>ST</sup> MARCH 2014 AND SAMPLED EQUITY DIVERSIFIED FUND SCHEMES**

Mutual Funds	Assets under management (March 2014) (Rs.Cr)	Mutual Fund Schemes
HDFC Mutual Fund	112,963	HDFC Equity Fund - Growth Option HDFC Capital Builder Fund - Growth Option
ICICI Prudential Mutual Fund	106,822	ICICI Prudential Dynamic - Regular Plan -Growth ICICI Prudential Top 200 Fund - Regular Plan -Growth
Reliance Mutual Fund	103,542	Reliance Equity Opportunities Fund-Growth Plan Reliance Growth Fund-Growth Plan-Growth Option
Birla Sun Life Mutual Fund	89,051	Birla Sun Life Equity Fund-Plan B(Growth) Birla Sun Life Pure Value Fund - Growth Option
UTI Mutual Fund	74,233	UTI - Equity Fund-Growth Option UTI Contra Fund-Growth-Growth Option
SBI Mutual Fund	65,499	SBI Magnum Equity Fund- REGULAR PLAN – Growth SBI Magnum Multicap Fund - REGULAR PLAN -Growth Option
Franklin Templeton Mutual Fund	45,404	Franklin India Flexi Cap Fund-Growth Plan Franklin India Opportunities Fund - Growth
IDFC Mutual Fund	41,349	IDFC Equity Fund-Regular Plan-Growth IDFC Premier Equity Fund-Regular Plan-Growth
Kotak Mahindra Mutual Fund	33,079	Kotak Classic Equity Scheme---Growth Kotak Opportunities---Growth
DSP BlackRock Mutual Fund	31,631	DSP BlackRock Equity Fund - Regular Plan – Growth DSP BlackRock Opportunities Fund-Regular Plan - Growth
Tata Mutual Fund	21,954	Tata Equity Opportunities Fund Plan AGrowth Tata Equity P/E Fund Plan A-(Growth Option)
Deutsche Mutual Fund	18,795	Deutsche Alpha Equity Fund – Growth Deutsche Investment Opportunity Fund - Growth Option

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

### EMPIRICAL ANALYSIS

#### RETURN AND RISK OF SELECTED EQUITY SCHEMES

Fund returns are assumed to be continuously compounded and are calculated as follows:

#### RETURN

The daily log returns are computed on the basis of the different schemes and returns on the market index are calculated on the basis of NSE Nifty on the respective date for the 5 years.

The log returns from a mutual fund scheme ( $R_{pt}$ ) at time t, is as follows

$$R_{pt} = \ln(\text{NAV}_t / \text{NAV}_{t-1})$$

Where  $\text{NAV}_t$  and  $\text{NAV}_{t-1}$  are net assets values for time period t and t-1 respectively.

The mean return of the mutual fund scheme ( $R_p$ ) over a period of time is calculated using the following equation.

$$R_p = \sum R_{pt} / n$$

Where  $R_{pt}$  is the return from a mutual fund scheme at time  $t$  and  $n$  is the total number of time period studied.

The log return on the market (represented by a stock index) at time  $t$ , is as follows:

$$R_{it} = \ln(I_t / I_{t-1})$$

Where  $I_t$  and  $I_{t-1}$  are value of a benchmark stock market index at period  $t$  and  $t-1$  respectively. In the present study NSE Nifty has been taken as the benchmark stock index representing the broad market.

The mean return of the market portfolio ( $R_i$ ) over a period of time is computed using the following equation.

$$R_i = \sum R_{it} / n$$

Where,  $R_{it}$  is the return from a stock market index (NSE Nifty) at time  $t$  and  $n$  is the total number of time periods studied.

The average daily return along with the ranking based on this return is presented in Table II. All the schemes have recorded positive average return during the study period. The ranking pattern based on return statistics shows that Reliance Growth Fund, ICICI Prudential Top 200 Fund and IDFC Premier Equity Fund have got the top 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> ranks respectively. Conversely UTI Contra Fund, Deutsche Alpha Equity Fund and Deutsche Investment Opportunity Fund obtained the lowest ranks on the basis of return earned. The average daily return of all the schemes (0.075%) is greater than the market return (0.063%). However the difference is not found significant on application of  $t$  test at 0.05 level of significance, as the  $p$ -value is greater than 0.05 in the case of all the mutual fund schemes analysed in the study. Therefore the null hypothesis that there is no significant difference between the return on the equity diversified growth schemes of mutual funds and market return is accepted. As presented in Table 3, 18 schemes have outperformed the market, whereas 6 schemes have under performed the market index.

#### RISK

##### Standard Deviation ( $\sigma$ )

Standard deviation is a way to quantify risk. It is a statistic to measure the variation in individual returns from the average expected return over a certain period of time. The higher the standard deviation, the greater the risk.

The standard deviation is computed from logarithmic daily returns using the following formula

$$\sigma_p = [1/n \sum (R_{pt} - R_p)^2]^{1/2}$$

Where  $\sigma_p$  is the total risk of the scheme portfolio.

The total risk of the market line portfolio is:

$$\sigma_m = [1/n \sum (R_{mt} - R_m)^2]^{1/2}$$

Where  $\sigma_m$  is the total risk of the market portfolio.

##### Systematic risk ( $\beta$ ) of the portfolio:

Beta relates the return on a mutual fund to a market index. Beta signifies the sensitivity of the return on the mutual fund scheme in comparison to the movement in the stock market index. Higher value of beta indicates a high sensitivity of fund returns against market returns, the lower value indicates a low sensitivity.

Beta of the Portfolio is calculated as follows:

$$\beta = \text{Cov}(R_p, R_m) / \sigma_m^2$$

$\text{Cov}(R_p, R_m)$  = Covariance of the portfolio and market returns

$\sigma_m^2$  = Variance of the market return.

The total risk ( $\sigma$ ) and beta values for all the 24 schemes has been calculated and presented in the Table II. The risk ( $\sigma$ ) associated with mutual funds (1.122745) is found to be lower than that of market risk (1.302436). Positive value of beta in the case of all the mutual fund schemes indicates that the fund return closely follows the market return. All the schemes have recorded a beta less than 1 indicating holding of relatively less risky portfolio than the market portfolio. However majority of the schemes are highly volatile as their betas have high value, except for nine fund schemes that have recorded a beta of less than 0.80.

##### DIVERSIFICATION: CO-EFFICIENT OF DETERMINATION ( $R^2$ )

The basic idea behind the equity diversified mutual funds is to lessen the unique risk specific to the portfolio through diversification. Higher diversification lessens the risk. Portfolio diversification is typically measured by correlating the returns on the portfolio with the returns on the market index, this is accomplished as part of the process of fitting a characteristic line whereby the portfolio's returns are regressed against the market's returns. The square of the correlation coefficient produced as a part of the analysis called the coefficient of determination or  $R^2$  is used to denote the degree of diversification. A low  $R^2$  value indicates that the fund has further scope for the diversification.

Table II also shows the values of co-efficient of determination for each of the 24 equity diversified schemes, when measured with the market index (NSE Nifty). The highest  $R^2$  value was found in IDFC Equity Fund-Regular Plan (0.994) followed by ICICI Prudential Top 200 Fund - Regular Plan (0.950) and Franklin India Opportunities Fund (0.949). 22 schemes out of 24 i.e. about 92% of the sampled funds have recorded  $R^2$  value of more than 0.8 which indicates that these schemes have reasonably exploited the diversification strategy in forming their portfolio.

TABLE II: RETURN, RISK AND DIVERSIFICATION IN EQUITY DIVERSIFIED MUTUAL FUND SCHEMES

	Average Daily Return	Rank	t-stat	p-value	Standard Deviation	Beta	Diversification R <sup>2</sup>
Birla Sun Life Equity Fund-Plan B(Growth)	0.074877	12	0.332	0.74	1.192233	0.877634	0.919214
Birla Sun Life Pure Value Fund - Growth Option	0.089004	4	0	1	1.035522	0.671209	0.712704
Deutsche Alpha Equity Fund - Growth	0.056880	23	-0.207	0.836	1.141068	0.850603	0.942633
Deutsche Investment Opportunity Fund - Growth Option	0.058189	22	-0.165	0.869	1.148901	0.838519	0.903593
DSP BlackRock Equity Fund - Regular Plan - Growth	0.072161	17	0.276	0.783	1.089943	0.776975	0.862024
DSP BlackRock Opportunities Fund-Regular Plan - Growth	0.073461	14	0.323	0.747	1.071217	0.787133	0.915914
Franklin India Flexi Cap Fund-Growth Plan	0.082522	19	-0.013	0.989	1.190701	0.860687	0.888582
Franklin India Opportunities Fund - Growth	0.063133	7	0.558	0.577	1.231848	0.920476	0.949104
HDFC Capital Builder Fund - Growth Option	0.088327	6	0.862	0.389	1.007015	0.726580	0.883095
HDFC Equity Fund - Growth Option	0.089478	13	0.751	0.453	1.210562	0.873764	0.883744
ICICI Prudential Dynamic - Regular Plan -Growth	0.085046	20	0.832	0.405	0.904606	0.645069	0.862592
ICICI Prudential Top 200 Fund - Regular Plan -Growth	0.073997	2	0.317	0.752	1.153275	0.863179	0.950273
IDFC Equity Fund-Regular Plan-Growth	0.062372	11	-0.033	0.974	1.283693	0.988996	0.994210
IDFC Premier Equity Fund-Regular Plan-Growth	0.103958	3	1.382	0.167	1.025363	0.643812	0.668769
Kotak Classic Equity Scheme---Growth	0.072636	5	0.289	0.773	1.097801	0.802406	0.906262
Kotak Opportunities---Growth	0.072665	16	0.271	0.786	1.172571	0.864582	0.922247
Reliance Equity Opportunities Fund-Growth Plan-Growth Option	0.104936	15	1.303	0.193	1.114142	0.783347	0.838572
Reliance Growth Fund-Growth Plan-Growth Option	0.071601	1	0.244	0.807	1.151411	0.811456	0.842523
SBI Magnum Equity Fund- REGULAR PLAN - Growth	0.078961	18	0.473	0.636	1.133052	0.835202	0.934451
SBI Magnum Multicap Fund - REGULAR PLAN -Growth Option	0.061996	21	-0.049	0.961	1.143053	0.839673	0.928028
Tata Equity Opportunities Fund Plan AGrowth	0.078287	9	0.456	0.648	1.130516	0.812575	0.876368
Tata Equity P/E Fund Plan A-(Growth Option)	0.078126	10	0.462	0.644	1.103823	0.767573	0.820262
UTI - Equity Fund-Growth Option	0.080517	8	0.578	0.563	1.026906	0.764460	0.940070
UTI Contra Fund-Growth-Growth Option	0.048064	24	-0.46	0.646	1.186654	0.859163	0.889234
Average of all schemes	0.075883				1.122745		
Market	0.063601				1.302436		

Source: Computed from NAVs

**RISK ADJUSTED PERFORMANCE OF SELECTED MUTUAL FUND SCHEMES**

Following four measures have been used in the present study

- Sharpe ratio
- Treynor Ratio
- Jensen Differential return measure
- Fama’s components of investment performance

**APPLICATION OF SHARPE AND TREYNOR RATIO TO EVALUATE THE PERFORMANCE OF SELECTED SCHEMES:**

**SHARPE’S REWARD TO VARIABILITY RATIO**

It was developed by Sharpe (1966). Here, additional portfolio return over risk free return is related with the total risk of the portfolio measured in terms of standard deviation. It can be expressed as

$$RVAR_p = \frac{R_p - R_f}{\sigma_p}$$

Where  $RVAR_p$  is reward to variability ratio or Sharpe’s ratio,  $R_p$  is the average return on the portfolio (managed fund),  $R_f$  is the average risk free return; and  $\sigma_p$  is the standard deviation of the fund returns.

By dividing the average return of the portfolio in excess of the risk-free return by the standard deviation of the portfolio, the Sharpe ratio measures the risk premium earned per unit of risk exposure. In other words, this ratio measures the change in the portfolio’s return with respect to a one unit change in the portfolio’s risk. The higher this “reward –to–variability–ratio” the more attractive is the evaluated portfolio because the investor receives more compensation for the same increase in risk.

The benchmark comparison is additional return of market over risk free return related with market portfolio’s total risk.

$$RVAR_m = \frac{R_m - R_f}{\sigma_m}$$

If  $RVAR_p$  is greater than the benchmark comparison, the portfolio lies above the ex-post CML, indicating the fund’s superior performance over the market. Alternatively if  $RVAR_p$  is less than  $RVAR_m$ , the fund’s performance is not good as the market.

**TREYNOR’S REWARD TO VOLATILITY RATIO**

This is introduced by Treynor (1965). Here, additional returns of the portfolio over the risk free return is expressed in relation to portfolio’s systematic risk.

Treynor’s ratio is calculated as follows:

$$RVOL_p = \frac{R_p - R_f}{\beta_p}$$

Where  $RVOL_p$  is reward to volatility of the portfolio,  $R_p$  is the average return on the portfolio,  $R_f$  is the average risk free return and  $\beta_p$  is the beta of the portfolio (fund) i.e. sensitivity of fund return to market return.

The benchmark for comparison with this measure of performance is additional returns of market over risk free return ( $R_m - R_f$ ). Where,  $R_m$  is average return on market portfolio (benchmark). As the beta of the market portfolio shall always be one. Hence, denominator is always one. If the  $RVOL_p$  is greater than the benchmark ( $R_m - R_f$ ) comparison, the portfolio (fund) has outperformed the market; otherwise it has not.

The sharpe ratio and treynor ratio both for the mutual fund schemes and for the benchmark portfolio (i.e NSE Nifty) are computed and presented in Table III.

According to Sharpe index the highest rank goes to the ICICI Prudential Dynamic - Regular Plan –Growth, Franklin India Flexi Cap Fund-Growth Plan, Birla Sun Life Equity Fund-Plan B(Growth). On the other hand the lowest rank is obtained by ICICI Prudential Top 200 Fund - Regular Plan –Growth, followed by the HDFC Capital Builder Fund - Growth Option and Birla Sun Life Pure Value Fund - Growth Option.

Interestingly all the schemes have out performed the market index and have succeeded to earn a return higher than risk free rate of return as indicated by the positive values of Sharpe’s index.

Treynor measure also indicates an almost similar type of situation as indicated by Sharpe’s index since all the funds have obtained positive values of this measure. However the benchmark comparison reveals that 18 schemes have outperformed the market index whereas the rest 6 schemes have under performed. The top performing funds in order are: ICICI Prudential Top 200 Fund - Regular Plan –Growth, Reliance Growth Fund-Growth Plan-Growth Option and HDFC Capital Builder Fund - Growth Option. Thus 18 schemes had outperformed both in terms of total risk and systematic risk.

TABLE III: RISK-ADJUSTED PERFORMANCE MEASURES OF EQUITY DIVERSIFIED FUND SCHEMES

	Sharpe Ratio	Rank	Treynor ratio	Rank
Birla Sun Life Equity Fund-Plan B(Growth)	0.046639	3	0.055604	16
Birla Sun Life Pure Value Fund - Growth Option	0.067339	22	0.103888	5
Deutsche Alpha Equity Fund - Growth	0.032958	9	0.044212	23
Deutsche Investment Opportunity Fund - Growth Option	0.033872	11	0.04641	21
DSP BlackRock Equity Fund - Regular Plan - Growth	0.048523	18	0.068069	14
DSP BlackRock Opportunities Fund-Regular Plan - Growth	0.050586	16	0.050586	12
Franklin India Flexi Cap Fund-Growth Plan	0.053119	2	0.073486	20
Franklin India Opportunities Fund - Growth	0.035605	7	0.047649	9
HDFC Capital Builder Fund - Growth Option	0.068573	23	0.09504	3
HDFC Equity Fund - Growth Option	0.057994	6	0.080348	15
ICICI Prudential Dynamic - Regular Plan -Growth	0.072708	1	0.101962	22
ICICI Prudential Top 200 Fund - Regular Plan -Growth	0.047451	24	0.063398	1
IDFC Equity Fund-Regular Plan-Growth	0.033574	19	0.043578	8
IDFC Premier Equity Fund-Regular Plan-Growth	0.082590	4	0.131537	7
Kotak Classic Equity Scheme---Growth	0.048609	21	0.066504	4
Kotak Opportunities---Growth	0.045534	15	0.061754	13
Reliance Equity Opportunities Fund-Growth Plan-Growth Option	0.076887	5	0.109355	17
Reliance Growth Fund-Growth Plan-Growth Option	0.045447	17	0.064486	2
SBI Magnum Equity Fund- REGULAR PLAN - Growth	0.052679	14	0.071465	18
SBI Magnum Multicap Fund - REGULAR PLAN -Growth Option	0.037376	10	0.050880	19
Tata Equity Opportunities Fund Plan AGrowth	0.052201	12	0.072625	10
Tata Equity P/E Fund Plan A-(Growth Option)	0.053317	13	0.076674	11
UTI - Equity Fund-Growth Option	0.059639	20	0.0801137	6
UTI Contra Fund-Growth-Growth Option	0.024262	8	0.033510	24
Average of all schemes	0.051145		0.070547	
Market	0.034035		0.044328	

Source: Computed from NAV

TABLE IV: PERFORMANCE OF EQUITY DIVERSIFIED MUTUAL FUND SCHEMES

	Average Daily return	Sharpe ratio	Treynor ratio
Over-Performed	18	24	18
Under-Performed	6	-	6

The above analysis leaves a question as to why some of the funds had outperformed or why some of the funds had not performed as well. It is a question on ability of the fund manager. The abilities that the fund managers are expected to have are security selection, diversification and market timing. In the present paper only the first two aspects i.e. security selection and diversification are analysed. Jensen Differential return measure and Fama's components of investment performance are used in the analysis of security selection ability of the fund manager.

**APPLICATION OF JENSEN MEASURE TO EVALUATE THE PERFORMANCE OF SELECTED SCHEMES**

Jensen has given a different dimension to the portfolio performance. He confined his attention to the problem of evaluating a portfolio manager's predictive ability of successfully predicting security prices which yield higher returns. The Jensen's alpha measure is the intercept from the Sharpe-Litner CAPM regression of portfolio excess returns on the market portfolio excess returns over the sample period. According to Jensen (1968), equilibrium return on a portfolio would be a benchmark. Equilibrium return is the return of the portfolio which is correctly priced by the market with respect to systematic risk (volatility) of the portfolio. This is the return a portfolio should earn with the given systematic risk.

$$EAR_p = R_f + (R_m - R_f)\beta_p$$

EAR<sub>p</sub> is equilibrium return of the fund, Difference between equilibrium return and return of the portfolio indicates superior performance of the fund. This is called as Alpha (α).

$$\alpha_p = R_p - EAR_p$$

Thus Jensen alpha is calculated by using the following equation

$$\alpha_p = R_p - (R_f + (R_m - R_f)\beta_p)$$

Where α<sub>p</sub> is the differential return earned by the scheme out of the ability of fund manager in selection of the securities. Thus Jensen's measure represents the average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM)

A positive value of Alpha for a portfolio would indicate that the portfolio had an average return greater than the benchmark return (equilibrium portfolio return) indicating the superior performance. The additional return earned by the fund manager over equilibrium return can be attributed to his ability to select the securities.

Table V presents the measures of stock selection skill of the fund manager, namely Jensen's and Fama's measures. According to Jensen measure Negative alpha values have been recorded only in case of 2 schemes i.e. Deutsche Alpha Equity Fund – Growth and UTI Contra Fund-Growth-Growth Option. Rest of the funds i.e. 22 out of 24 schemes have positive alpha, which indicates that about 92% of fund managers were able to beat the market by using their skill in the selection of the portfolio. This is an indication of the superior stock selection ability of equity fund managers. Best performing funds in terms of Jensen's alpha during the study period are : IDFC Premier Equity Fund-Regular Plan-Growth which is followed by the Reliance Equity Opportunities Fund-Growth Plan-Growth Option and Birla Sun Life Pure Value Fund - Growth Option.

**APPLICATION OF FAMA'S COMPONENTS TO EVALUATE THE PERFORMANCE OF SELECTED SCHEMES**

The empirical results relating to risk-adjusted performance measures discussed earlier reflected the overall performance of sample schemes. However, it will be useful to breakdown the performance into different components of performance. Thus, the performance of the mutual fund schemes has also been examined on the basis of Fama's components of Investment performance measure. According to Fama excess return above risk-free rate can be expressed as the selectivity (or Jensen's alpha) plus the return due to systematic risk as follows:

$$R_p - R_f = R_p - (R_f + (R_m - R_f)\beta_p) + \beta(R_m - R_f)$$

Excess return = Selectivity + Systematic risk

If a portfolio is completely diversified there is no specific risk and the total portfolio risk will equal the systematic risk. Portfolio managers will give up diversification seeking additional return. Selectivity can be broken down into net selectivity and the return required to justify the diversification given up.

**Diversification:** It is the measure of return required to justify the loss of diversification for the specific risk taken by the portfolio manager. It is calculated as follows:

$$D = (R_m - R_f) (\sigma_p/\sigma_m - \beta)$$

**Net Selectivity:** Net selectivity is the remaining selectivity after deducting the amount of return required to justify not being fully diversified.



Net Selectivity =  $\alpha_p - D$

Obviously, if net selectivity is negative the portfolio manager has not justified the loss of diversification.

Thus in terms of Fama's framework portfolio return constitutes the following four components:

- Risk-free return  $R_f$
- Compensation for systematic risk  $\beta (R_m - R_f)$
- Compensation for inadequate diversification  $(R_m - R_f) (\sigma_p/\sigma_m - \text{Beta})$
- Net superior returns due to selectivity  $(R_p - R_f) - (\sigma_p/\sigma_m) (R_m - R_f)$

In the above, second and third measures indicate the impact of market risk (systematic risk) and diversification. By altering systematic and unique risk a portfolio can be reshuffled to get desired level of return. A portfolio manager can earn superior returns by identifying the undervalued securities through constant research and professional acumen. This ability of selectivity can be known with the help of the fourth component. Value for each component of investment performance is computed and presented in Table V.

TABLE V: JENSEN AND FAMA MEASURE

	Jensen Alpha	Rank	Fama's Measure		
			Compensation for systematic risk	Compensation for inadequate diversification	Net superior returns
Birla Sun Life Equity Fund-Plan B(Growth)	0.016700	15	0.038903	0.001674	0.015027
Birla Sun Life Pure Value Fund - Growth Option	0.039977	3	0.029753	0.005490	0.034487
Deutsche Alpha Equity Fund - Growth	-0.000099	23	0.037705	0.001130	-0.001229
Deutsche Investment Opportunity Fund - Growth Option	0.001746	21	0.037170	0.001933	-0.000187
DSP BlackRock Equity Fund - Regular Plan - Growth	0.018446	13	0.034442	0.002654	0.015792
DSP BlackRock Opportunities Fund-Regular Plan - Growth	0.019296	12	0.034892	0.001566	0.017729
Franklin India Flexi Cap Fund-Growth Plan	0.025052	8	0.038152	0.002373	0.022724
Franklin India Opportunities Fund - Growth	0.003009	20	0.040803	0.001123	0.001934
HDFC Capital Builder Fund - Growth Option	0.036846	5	0.032208	0.002066	0.034780
HDFC Equity Fund - Growth Option	0.031473	6	0.038732	0.002469	0.029004
ICICI Prudential Dynamic - Regular Plan -Growth	0.037178	4	0.028594	0.002193	0.034985
ICICI Prudential Top 200 Fund - Regular Plan -Growth	0.016461	16	0.038263	0.000988	0.015473
IDFC Equity Fund-Regular Plan-Growth	0.001541	22	0.043840	-0.000150	-0.000591
IDFC Premier Equity Fund-Regular Plan-Growth	0.056146	1	0.028539	0.006359	0.049787
Kotak Classic Equity Scheme---Growth	0.017794	14	0.035569	0.001794	0.016000
Kotak Opportunities---Growth	0.015066	18	0.038325	0.001583	0.013484
Reliance Equity Opportunities Fund-Growth Plan-Growth Option	0.050939	2	0.034724	0.003195	0.047743
Reliance Growth Fund-Growth Plan-Growth Option	0.016357	17	0.035970	0.003218	0.013140
SBI Magnum Equity Fund- REGULAR PLAN - Growth	0.021966	11	0.037023	0.001540	0.021125
SBI Magnum Multicap Fund - REGULAR PLAN -Growth Option	0.004799	19	0.037221	0.001682	0.003820
Tata Equity Opportunities Fund Plan AGrowth	0.022994	10	0.036020	0.002457	0.020537
Tata Equity P/E Fund Plan A-(Growth Option)	0.024828	9	0.034025	0.003543	0.021285
UTI - Equity Fund-Growth Option	0.0273567	7	0.033887	0.001063	0.026294
UTI Contra Fund-Growth-Growth Option	-0.009295	24	0.038085	0.002302	-0.011596
Average of all schemes	0.020691				

Source: Computed from NAVs

**Performance on risk:** performance on risk assesses return being generated by fund managers due to their decision to take risk. They assume risk in the hope of generating extra returns on their portfolios. The Fama model results show that  $\beta$  impact compensation is positive for all the schemes. Thus risk bearing activity of fund managers has resulted in positive return for all the sampled mutual fund schemes.

**Performance on Diversification:** Performance of fund managers based on compensation for inadequate diversification too was found to be satisfactory. Except for one scheme - IDFC Equity Fund-Regular Plan-Growth that earned a negative return in this respect, the fund managers of the remaining 23 schemes have earned a positive compensation for inadequate diversification.

**Performance on Net Selectivity:** After accounting for diversification, the residual performance on selectivity is attributed to net selectivity and it will be equal to (or less than) that on selectivity. A positive net selectivity will indicate superior performance. However, in case net selectivity is negative it would mean that the portfolio manager has not justified the loss of diversification. Table 4 shows that fund managers of 22 schemes (92%) appeared to possess superior stock selection ability as the selectivity (Jensen ratio) was found to be positive. However in terms of net selectivity there were only 20 schemes that showed positive values. Negative values were reported in the case of 4 equity schemes which suggests that these schemes could not justify the loss of diversification. It also indicates that the research ability of these 4 schemes is not satisfactory. Thus 20 schemes which had reported positive net selectivity seem to be more reliable as far as the professional skill of the managers is concerned during the study period. The two top performers with regard to selectivity were IDFC Premier Equity Fund-Regular Plan-Growth and Reliance Equity Opportunities Fund-Growth Plan-Growth Option.

## CONCLUSION

The present paper is an attempt to measure the performance of equity diversified mutual fund schemes floated by 12 different mutual funds in India. With an analysis of return and risk of different schemes, the performance has also been analysed based on 4 different risk adjusted performance measures. The study is based on the daily NAV data for 24 mutual fund schemes of 12 different mutual funds in India for the recent five year period i.e. from April 2009 to March 2014. The findings of the empirical investigation carried out in this study are quite encouraging.

In terms of average daily return 18 schemes have outperformed the market. The average daily return of all the schemes (0.075%) was greater than the market return (0.063%). However the difference is not found significant on application of t test at 0.05 level of significance. The findings of the study also revealed that majority of the fund schemes were reasonably diversified. It can be stated that all the 24 schemes had superior performance compared to the benchmark portfolio, 18 schemes had superior performance in terms of treynor ratio. Fund managers of 22 schemes (92%) appeared to possess superior stock selection ability as the selectivity (Jensen ratio) was found to be positive. However in terms of net selectivity (Fama's measure) there were only 20 schemes that showed positive values.

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**COMPOSITIONAL CHANGES IN IRANIAN TRADE BASKET OF LIVESTOCK SECTOR**

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**ABSTRACT**

*The export and import trends of livestock products and inputs in Iran show notable changes in the traded commodity profile. The changing import basket towards livestock inputs indicates development priority towards boosting domestic livestock production. On the export side, Iran mainly traded in livestock by-products like hides and skins, guts, bladders and stomachs of animal, but by quinquennium ending (QE) 2006, meat & edible offals and dairy products became more visible in export basket. The growth momentum in exports (83.22 percent increase in export value during QE2001 and QE2006), offer higher income opportunities for the livestock farmers and product manufactures in Iran, and the import growth in vaccines for veterinary purpose, animal feed, milking and dairy machines provide the necessary support for livestock development.*

**KEYWORDS**

Exports, Imports, livestock products, livestock inputs.

**1. INTRODUCTION**

Livestock is an important national resource in Iran. More than half of the rural population depends at least in part on livestock for their livelihood. Livestock plays a key role in the lives of the rural poor, generating employment and often providing about 80% of their cash income. The livestock sector accounts for about 32% of the gross value of agricultural production (Kamalzadeh et al., 2008) and food from animal origin constitute a significant proportion of the Iranian diet. Although the dietary habits in Iran are predominantly non-vegetarian, yet dairy products are also consumed by the population. According to the 4th Five-year National Development Plan (2004-2009), the Iranian government, aims to increase the per capita consumption of dairy products from 95 kg in 2003 to 163 kg (Milkindustry.net, 2008). Together with rising demand of livestock products their supply has also increased, the livestock production index of Iran, that includes meat and milk from all sources, dairy products such as cheese, and eggs, honey, raw silk, wool, and hides and skins rose from 24 in 1961 (base 1999-00) to 142 in 2009.

Besides the domestic demand, the economic potential of any livelihood option is also conditioned by international demand. Hence, encouraging non-oil exports, particularly agri-exports have been made a development priority in Iran (Agence France Presse, 2010). Since 2001, several policy measures have been taken in this direction such as providing for export subsidy and export bonus. The latter policy was first introduced for the leather exporters and then extended to the exporters of agricultural products such as, raisins, eggs, chicken meat, tea, prawn, etc. In light of the empirical evidence from Iran that increasing trend in trade had positive impact on surplus value and growth of agricultural sector (Koshteh and Karbasi, 2003), realizing the untapped export potential of Iranian livestock products can have far reaching implications for livelihood security of the livestock producers and processors. Additionally, as the domestic supply of livestock products would continue to respond to the increasing demand, the derived demand for quality genetic materials, pharmaceuticals and feed materials shall further increase. Given the demand-supply gap of inputs (Nordblom and Shomo, 2005), Iran will continue to resort to large imports of livestock inputs required for enhancing livestock production in the country.

In this backdrop, this paper presents a detailed analysis of Iranian trade trends in livestock products and inputs that would have implications for the development of the livestock sector in the country and strengthening trade relations between Iran and other countries.

**2. DATABASE**

This study is based on Iranian trade data on value and volume of exports and imports of livestock products and inputs pertaining to years 1997-2006<sup>1</sup>, taken from three sources viz; UN Comtrade Database (United Nations Commodity Trade Statistics Database), Statistics Center of Iran and Ministry of Jihad- e-Agriculture. The analysis was carried out for the overall period 1997-2006 and two sub-periods, i) 1997-2001, i.e., quinquennium ending 2001 (QE2001) and ii) 2002-2006, i.e. QE2006. The livestock products and inputs considered in the study are spread over 10 Chapters of Harmonised System (HS) of Trade nomenclature<sup>2</sup>.

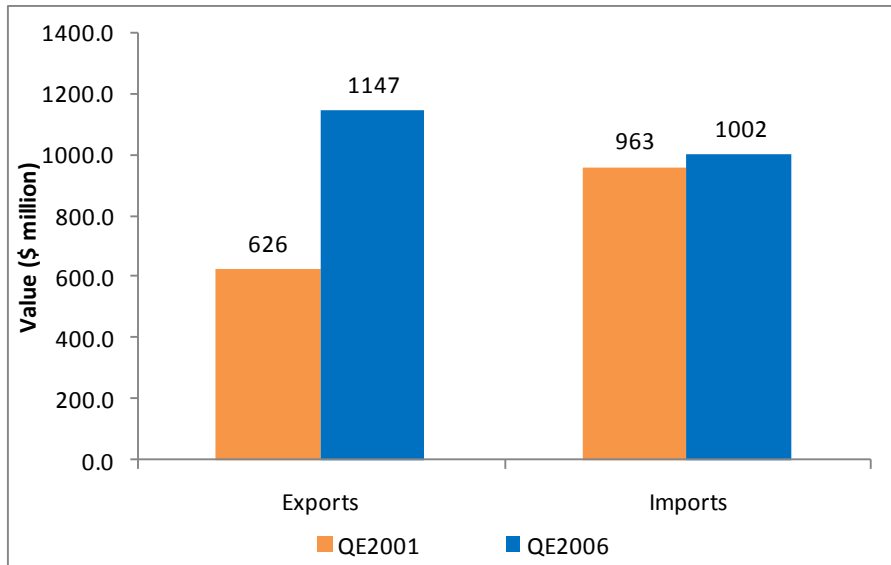
<sup>1</sup> The direct trade data for Iran was available only till 2006. For the later years, 2007-10, the mirror data was available but as the mirror data for the earlier years did not compare well with the corresponding direct data, the analysis was confined to 1997-2006

<sup>2</sup> The Harmonized Commodity Description and Coding System generally referred to as "Harmonized System" or simply "HS" is a multipurpose international product nomenclature developed by the World Customs Organization (WCO). The system is used by more than 177 countries and economies as a basis for their Customs tariffs and for the collection of international trade statistics. Moreover 98 per cent of the merchandise in international trade is classified in terms of the HS.

3. TRADE TRENDS

**Total exports and imports:** The total exports of livestock products and inputs, considered in the study was \$1147 million during QE2006, nearly 0.12 percent of the total Iranian export value of all commodities during this period. Between the first (QE2001) and second (QE2006) quinquennium, the total value of livestock exports registered a tremendous increase of 83.22 per cent (Fig. 1). The total imports of livestock products and inputs that accounted for 0.15 percent share in the Iranian import basket (QE2006) were largely stable during the study period, showing a marginal increase of 4.04 per cent from \$963 million in QE2001 to \$1002 million in QE2006. A faster growth of exports and slower increase in imports despite of rising demand, indicates a strong trend towards the development of domestic livestock sector in Iran. Also, it shows a welcome trend of rise in non-oil exports from Iran.

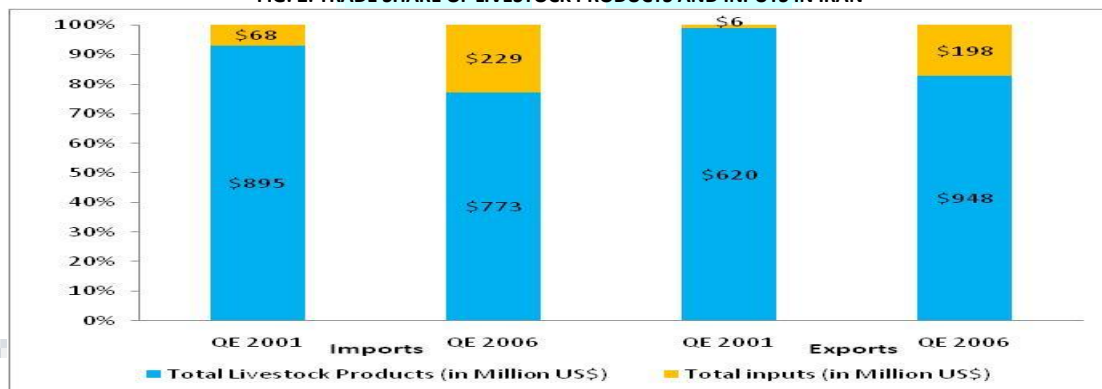
FIG. 1: EXPORT AND IMPORT VALUE OF IRANIAN LIVESTOCK SECTOR TRADE



**Livestock Products and Inputs:** The Iranian import and export basket comprises of both, livestock products and inputs, with predominant share of former. In QE2001, livestock products had 92.9 per cent share in total value of livestock imports, the remaining 7.1 per cent being attributable to livestock inputs (Fig. 2). In the later period, 2002-2006 (QE2006), the share of livestock products declined to 77.2 per cent while that of inputs increased to 22.8 per cent. The importance of livestock products in the Iranian imports declined not only in relation to livestock inputs, but also there was an absolute decline in the total value of imports of livestock products from \$894.73 million in QE2001 to \$773.21 million in QE2006, while the value of inputs increased from \$67.91 million to \$228.69 million during the same period. This indicates that the development priority in Iran is increasingly shifting towards developing the domestic livestock sector through higher imports of livestock inputs rather than livestock products.

Interestingly, in relative terms, the export basket showed similar pattern of change over time. The livestock products occupied lions share in the total exports (99 per cent) and the share of livestock inputs was negligible (1 per cent) in QE2001. However, the share of livestock inputs increased rapidly to 17.3 per cent in QE2006 (Fig. 2). But unlike in case of imports, there was an increase in total value of exports of both, products and inputs value from \$ 619.53 million (QE2001) to \$ 948.50 million (QE2006) and from \$6.26 million (QE2001) to \$198.48 million (QE2006), respectively.

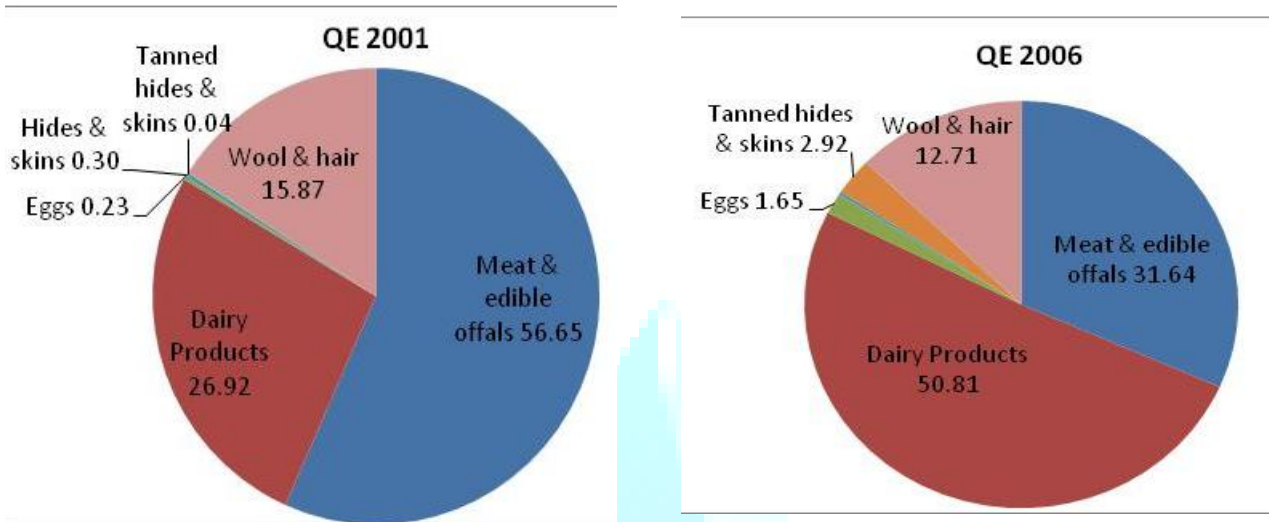
FIG. 2: TRADE SHARE OF LIVESTOCK PRODUCTS AND INPUTS IN IRAN



**Import Basket of Livestock Products:** The livestock products that appear in the trade basket have been grouped into 9 broad categories, viz.: meat & edible offals, meat preparations, dairy products, eggs, wool & hair, hides & skins, tanned hides & skins, prepared leather and other livestock products (e.g., guts, bladders and stomachs of animals).

Meat & edible offals and dairy products occupied more than 82 per cent share in the total livestock product imports in both the time-periods (Fig. 3). Over the period of time, there was a notable change in the share of these two products. In QE2006, the dairy products replaced meat & edible offals as the most important import product group, as the share of later reduced drastically to 31.64 per cent in QE2006 from 56.65 percent in QE2001, while that of dairy products almost doubled.

FIG. 3: COMPOSITION OF LIVESTOCK PRODUCT IMPORTS



The share of meat and edible offals in the import basket declined as the value of imports of this product group decreased by about 52% in QE2006 as compared to QE2001 (Table 1). Nevertheless, the domestic production of meat (lamb, chicken, beef and goat) of over 2 million tonnes annually is not sufficient to meet domestic demand and therefore, Iran has to import about 100,000-150,000 tons of meat and live animals every year (Jadoon, 2010). The imports of various types of *Halal* meat are usually regulated by government agencies and/or industry associations/co-operatives. In FY 2007-08, the country had to import nearly 100,000 tons of meat worth \$238 million, in order to reduce the local prices. The Brazil Livestock and Products Semi-annual Report (2010) also reported Iranian imports of meat from Brazil, 81,202 metric tons in 2008 and 88,996 metric tons in 2009, primarily due to insufficient domestic meat production to meet the demand.

TABLE 1: CHANGES IN LEVEL OF IMPORT OF LIVESTOCK PRODUCTS

Commodity	Import Values (million \$) QE2006	% change in QE2006 over QE2001
Meat & Edible Offals	244.60	-51.74
Dairy products	392.85	63.10
Eggs	12.77	522.39
Meat Preparations	Neg.	@
Hides & Skins	2.07	-22.61
Tanned hides & Skins	22.58	@
Prepared leather	Neg.	@
Wool & Hair	98.27	-30.77
Other Livestock Products	Nil	@

**Notes:** @ Not computed as either nil or negligible imports made in QE2001  
 Neg. < \$0.05 million

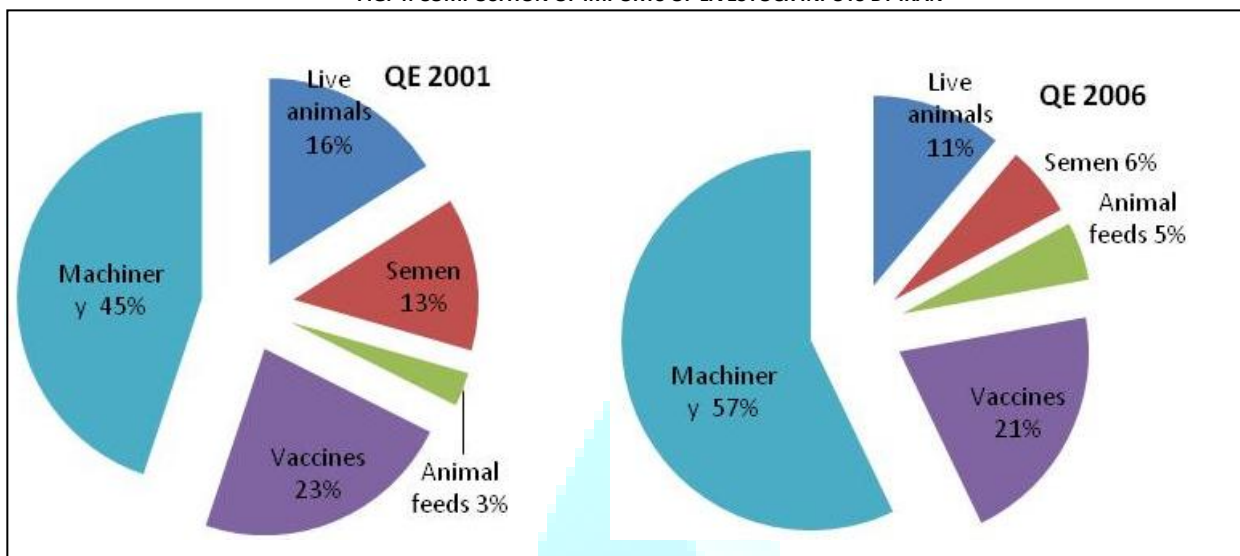
The rising demand of dairy products and eggs in Iran was clearly reflected in the high and positive percent change in QE2006 vis a vis QE2001. Dairy products had registered firm growth in import value, increasing continuously from \$50.63 million in 2002 to \$126.45 million in 2005. Although, during 2005-2006, the imports declined in value terms by more than 50%, by and large, the observed trends indicate rise in import demand of dairy products in Iran. The initiative of Iranian Government to facilitate public access to milk and dairy products led to rapid increase in imports of these products. In the 4<sup>th</sup> Five Year National Development Plan (2004-2009), the Iranian Government aimed at increasing the annual consumption of dairy products to 163 kg, around 72 per cent higher than the consumption level of 95 kg in 2003. Higher production targets were set for meeting these consumption levels, but the immediate solution was to meet the demand through imports.

Unlike dairy products, the import demand of eggs has been highly volatile during 2002-2006, increasing from \$2.03 million in 2002 to \$5.01 million in 2003, declining to \$1.28 in 2004, rising once again to \$4.18 million in the subsequent year to fall once again to nearly \$0.27 million in 2006. Similarly, the imports of tanned hides and skins were very volatile during 2002-2006 although their absolute value in this period was much higher than in earlier period of 1996-2001.

**Import Basket of Livestock Inputs**

The imports of livestock inputs are confined to broadly five types of inputs in the following order of importance; machinery, vaccines, live animals, semen and animal feeds (Fig. 4).

FIG. 4: COMPOSITION OF IMPORTS OF LIVESTOCK INPUTS BY IRAN



Iran was importing milking machinery, dairy machinery and machinery for preparing animal feeding stuffs. There was a more rapid growth in the import of former (milking machines & dairy machinery) than the later, since Iranian Government has been encouraging private investment in dairy sector, the machinery was imported to facilitate the establishment of dairy processing units. Next to machinery, vaccines for veterinary medicine were the important item of input import. The inter-quinquennium period showed more than double increase in the import value.

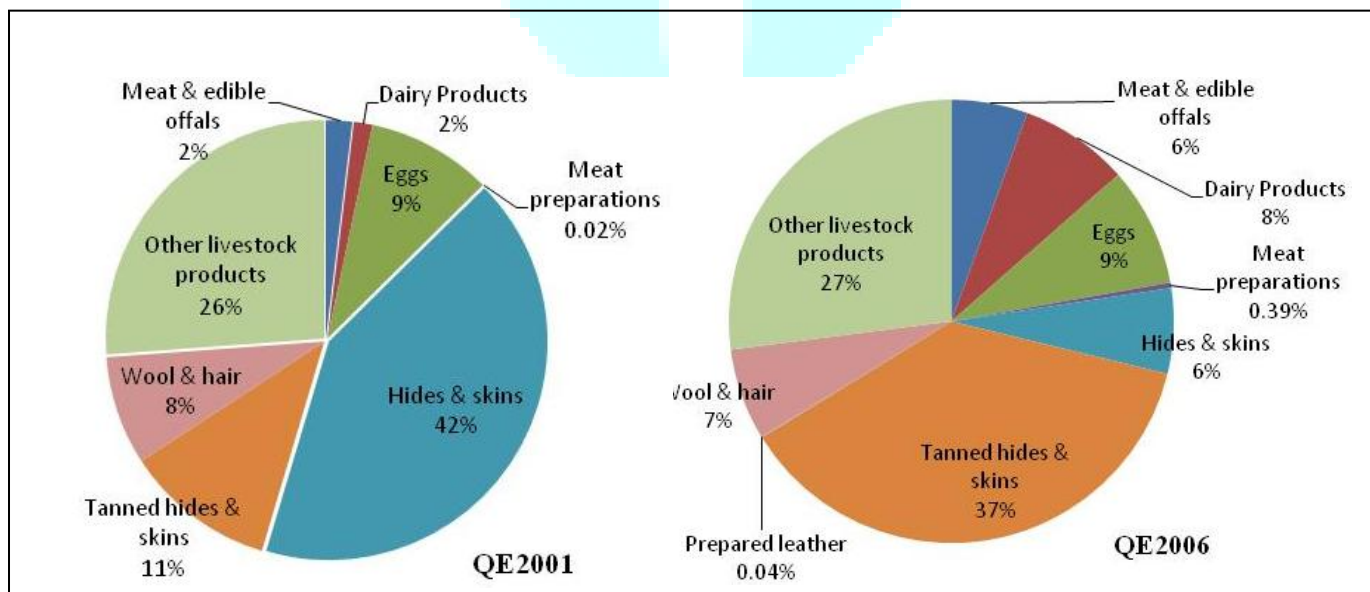
Iran had also imported live animals worth \$25.41 million in QE 2006, up from import value of \$10.91 million in QE 2001. Among the live animals, the import of bovine animals was quite small, except in 2006 when their trade value exceeded \$1.6 million. There was a good demand for live cattle imports (mainly dairy cattle) in Iran in early 1990s and Canada was one of the leading exporters to Iran at the time, but the imports of live cattle were banned by the Government later. The droughts of 1998-2001 forced a number of dairy cattle farmers to send their cattle to the slaughter houses, which caused a shortage of dairy cattle in the country. Hence, the Iranian Government’s plan for increasing local milk production from the 6.5 million tons in 2008 to 12 million tons within the next 8 years, led to lifting of this ban (Zanganeh, 2008). The major import of live animals was that of live poultry in Iran. In order to increase the production potential of its dairy animals, large doses of semen amounting to over \$13.5 million were imported by Iran during 2002-2006. In the earlier period (1997-2001) also, bovine semen of about \$9 million was imported.

The information on two types of items used for animal feed was looked into; vegetable materials etc and prepared animal feeds. Iran’s imports second type of feed and like other inputs, the import demand of this commodity also showed very sharp increase in QE2006 over QE2001. The intra- quinquennium growth rates have also been worked out for the inputs. Kamalzadeh et al. (2008) also substantiated that due to shortages of feed in Iran, about 47% of the required feed ingredients for the poultry sector were imported.

**Export Basket of Livestock Products**

After examining the trends in imports of livestock products and inputs, this section analyses the composition of exports and export trends of livestock products and inputs. The Iranian exports of livestock products (Fig.5) were mainly of by-products like hides and skins, tanned and raw (43% value share in QE2006) and other livestock products comprising guts, bladders and stomachs of animals (27% share). These products together accounted for about 80% value share of exports in QE2001 as well. Wool & hair also had a sizeable share (7.8%) in Iranian exports of livestock products.

FIG. 5: COMPOSITION OF LIVESTOCK PRODUCT EXPORTS



Other than these by-products, Iran also exported eggs worth \$ 82.31 million during 2002-2006 (Table 2). The share of eggs in the export basket has stagnated at about 9% during the study period. However, meat & edible offals and dairy products became more visible in the export basket in the latter half of the study period. By and large, as in case of import of livestock products, a trend towards diversification of exports emerged in the QE2006 as compared to QE2001.

**Changes in level of Exports**

During the two sub-periods, 1997-2001 and 2002-2006, except for exports of raw hides and skins, the export value of the livestock products had increased in the later period. The intra-quinquennium growth rates had also been positive for the commodity groups indicating that in consonance with the opening-up policy of Iranian economy, the livestock products increasingly made in-roads in the markets of other nations.

TABLE 2: EXPORTS OF LIVESTOCK PRODUCTS

Commodity	Export Values (million \$) QE2006	% change in QE2006 over QE2001	Compound Annual Growth Rate (%)	
			QE2001	QE2006
Meat & Edible Offals	52.74	339.6	22.45	27.26
Dairy products	75.52	778.4	144.31	96.62
Eggs	82.31	43.7	153.86	21.84
Meat Preparations	3.72	@	5.05	92.18
Hides & Skins	58.76	-77.4	-14.62	-33.77
Tanned hides & Skins	355.33	413.5	83.66	23.44
Prepared leather	0.41	@	#	173.43
Wool & Hair	63.27	26.8	28.82	12.57
Other Livestock Products	256.40	58.3	-5.94	27.42

Notes: @ Not calculated as value in QE2001 was nil or negligible

# insufficient information for computing cagr

**Export Basket of Livestock Inputs**

The Iranian exports were confined to three inputs: live animals, animal feeds and machinery (Table 3). Among the live animals, the exports were principally that of sheep and poultry. Bovine animals worth \$1.83 million in export value were exported in the recent quinquennium. Interestingly, for two input items viz. animal feed preparations and dairy machinery, the export value in QE2006 ranges from \$3.36 million to \$5.56 million, respectively. It may be recalled that Iran relies heavily on the imports for catering to the domestic demand of these inputs. However, growth in exports of these items indicates that part of the import demand was for the purpose of re-exports.

TABLE 3: IRANIAN EXPORTS OF LIVESTOCK INPUTS

Commodity	Export Values (million \$)		Compound Annual Growth Rate (%)	
	QE2001	QE2006	QE2001	QE2006
Live animals	4.66	189.53	25.35	138.52
Animal feeds	1.51	3.36	700.46*	-29.36
Vaccines for veterinary use	0.01	0.02	#	#
Machinery	0.08	5.56	-19.45	617.40

Notes: \*pertains to 1998-2001, # insufficient information for computing cagr

**Trade Balance**

The net trade balance, that is, the difference in export and import value shows that considering the entire study period from 1997-2006, Iran was net importer of livestock products and inputs (Fig. 6). However, in QE 2006, the livestock sector trade registered a positive net trade balance, i.e., the export value exceeded the import value by \$ 145.1 million (Table 4). As per the trends in second half of decade period from 1997 to 2006, Iran was net importer of meat & edible offals, dairy product, wool & hair, semen, animal feeds, vaccines & machines used for livestock sector. For the other commodities, the country was a net exporter; the trade balance was particularly favorable for tanned hides and skins, other livestock products and live animals.

FIG. 6: NET TRADE BALANCE OF IRANIAN LIVESTOCK SECTOR: 1997-2006

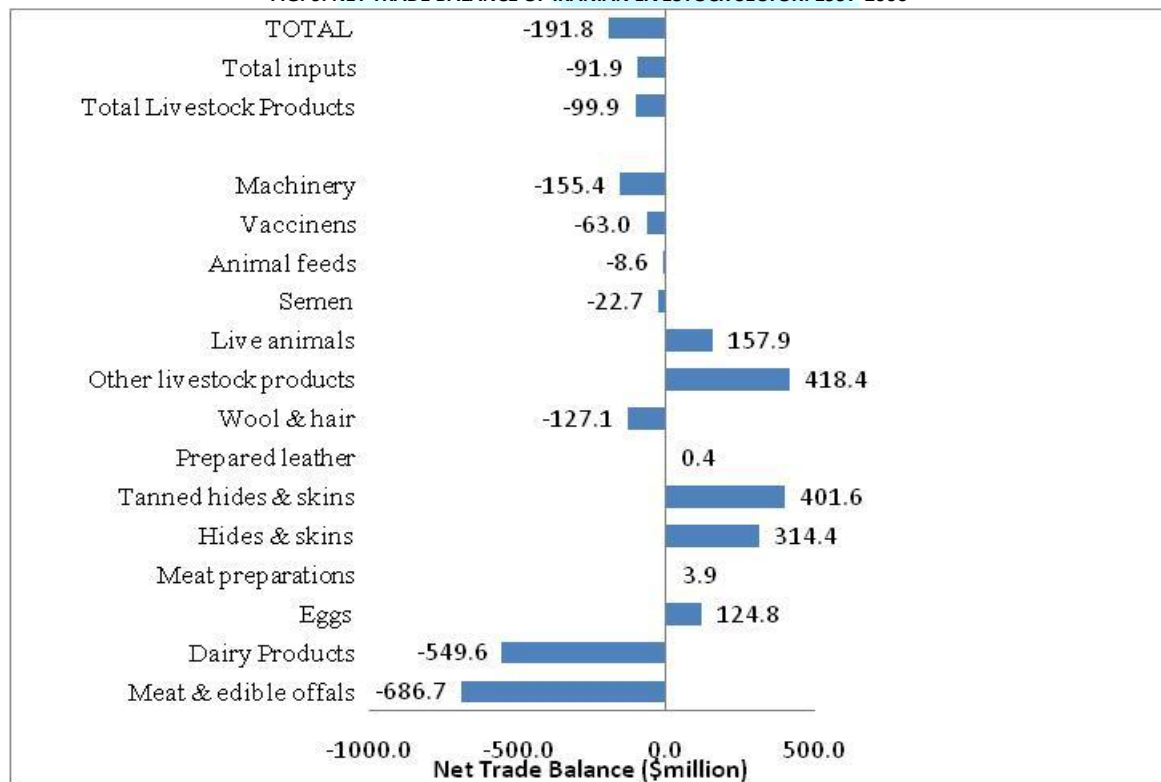


TABLE 4: NET TRADE BALANCE OF IRANIAN LIVESTOCK SECTOR: QE2001 AND QE2006

Commodity Groups	Net Trade Balance(\$ million)	
	QE2001	QE2006
Meat & edible offals	-494.8	-191.9
Dairy Products	-232.3	-317.3
Eggs	55.2	69.5
Meat preparations	0.1	3.7
Hides & skins	257.7	56.7
Tanned hides & skins	68.9	332.7
Prepared leather	0.0	0.4
Wool & hair	-92.0	-35.0
Other livestock products	162.0	256.4
Live animals	-6.3	164.1
Semen	-9.1	-13.7
Animal feeds	-0.5	-8.1
Vaccines	-15.4	-47.5
Machinery	-30.4	-125.0
<b>Total Livestock Products</b>	<b>-275.2</b>	<b>175.3</b>
<b>Total inputs</b>	<b>-61.6</b>	<b>-30.2</b>
<b>TOTAL</b>	<b>-336.8</b>	<b>145.1</b>

#### 4. CONCLUSIONS

In both, the import and export basket, the share of livestock products was more predominant than livestock inputs but overtime the relative importance of livestock inputs increased. Among various livestock products, dairy products were most important item of import followed by meat and edible offal, wool and hair, tanned hides & skins, eggs and hides & skins. The composition of livestock inputs import was confined to machinery, vaccine, live animal, semen & animal feed in order of importance. Iran exported mainly livestock by-products, such as, tanned and raw hides & skins, guts, bladders and stomachs of animals and wool & hair. Live animals, principally sheep and poultry were also exported by Iran. Iran was net importer of meat & edible offals, dairy product, wool & hair, semen, animal feeds, vaccines & machines used for livestock sector. For the other commodities, the country was a net exporter; the trade balance was particularly favorable for tanned hides and skins, other livestock products and live animals.

Though the present level of livestock trade between the India and Iran is low, there is good potential of enhancing bilateral trade between India and Iran for a number of livestock products. There is possibility of enhancing trade in livestock products between Iran and India. Initiatives like, increasing the exportable surplus, improving transportation infrastructure, and regional trade agreement with West Asian countries could be few important options for India for strengthening its trade ties with Iran for the livestock sector.

#### 5. ACKNOWLEDGEMENT

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## CUSTOMERS' SATISFACTION REGARDING LIQUIDITY IN MUTUAL FUND: A STUDY

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## ABSTRACT

*It is concluded that majority of the respondents in all the categories i.e. age, qualification, income, occupation and gender are satisfied or highly satisfied with the opinion regarding liquidity in mutual funds investment.*

## KEYWORDS

mutual funds, customer satisfaction.

## INTRODUCTION

Mutual Funds industry started in India in a small way with the UTI Act creating what was effectively a small savings division within the RBI. Over a period of 25 years this grew fairly successfully and gave investors a good return, and therefore in 1989, as the next logical step, public sector banks and financial institutions were allowed to float Mutual Funds and their success emboldened the government to allow the private sector to foray into this area. A mutual fund is a group of investors operating through a fund manager to purchase a diverse portfolio of stocks or bonds. Mutual funds are highly cost efficient and very easy to invest in. By pooling money together in a mutual fund, investors can purchase stocks or bonds with much lower trading costs than if they tried to do it on their own. Also, one doesn't have to figure out which stocks or bonds to buy. But the biggest advantage of mutual funds is diversification. Diversification means spreading out money across many different types of investments. When one investment is down another might be up. Diversification of investment holdings reduces the risk tremendously. Nowadays, bank rates have fallen down and are generally below the inflation rate. One of the options is to invest the money in stock market. But a common investor is not informed and competent enough to understand the intricacies of stock market. Mutual funds offer several advantages over investing in individual stocks. For example, the transaction costs are divided among all the mutual fund shareholders, which allows for cost-effective diversification. Investors may also benefit by having a third party (professional fund managers) apply expertise and dedicate time to manage and research investment options, although there is dispute over whether professional fund managers can, on average, outperform simple index funds that mimic public indexes.

## REVIEW OF LITERATURE

**Sehgal and Jhanwar (2007)** examined that, if there is any short-term persistence in mutual funds performance in the Indian context. We find no evidence that confirms persistence using monthly data. Using daily data, we observe that for fund schemes sorted on prior period four-factor abnormal returns, the winners' portfolio does provide gross abnormal returns of 10% per annum on post-formation basis. **Sumalatha (2007)** analyzed the structure of the mutual fund industry in India, to examine the state of competition among the mutual funds, sector wise competition and within sector competition. The study analyzed competition among the mutual funds which includes private sector, public sector and foreign sector mutual funds. The methodology proposed by William J Baumol and Grossack were used to analyze the state of competition in the mutual fund industry. **Mishra and Vaibhav (2010)** founded that the Mutual fund is an important segment of the financial system. It is non-fund based special type of institution which acts as an investment conduit. It is a mechanism of pooling together the savings of large number of investor for collective investments with an avowed objective of attractive yields and appreciation in their value. The SEBI (Mutual Fund) Regulations 1996 defines a mutual fund as "a fund Establishment in the form of a trust to raise money through the sale of units to the public or a section of the public under one or more schemes for the investing in securities, including money market instrument. **Ray (2011)** founded that, Mutual Fund is a topic which is of huge interest not only to researchers all over the world, but also to investors. Unit Trust of India as India's first mutual fund was set up as an effective vehicle for channelizing progressively larger share of household savings to productive investments in the corporate sector. In 1964, Unit Trust of India (UTI) came up with the first mutual fund Unit Scheme, 1964, popularly known as US 64 which was the first open ended balanced fund. But, during late nineties, UTI faces severe challenges with its unit scheme US 64. At present, mutual funds have emerged as an important segment of financial market of India, especially as a result of the initiatives taken by the Government of India for resolving problems relating to UTI's US-64. This paper tries to analyze the crisis faced by Unit Trust of India, specially its largest savings mobilization scheme-US64 and evaluate overall performance of UTI in terms of savings mobilization, profitability, dividend distribution, income and expenditure pattern, investible funds, redemption and net inflow of funds. At last, the paper recommends some measures in overcoming the challenges faced by UTI. **Vyas Ravi (2012)** explained the attention on number of factors that highlights investors' perception about mutual funds. It was found that mutual funds were not that much known to investors, still investor rely upon bank and post office deposits, most of the investor used to invest in mutual fund for not more than 3 years and they used to quit from the fund which were not giving desired results. Equity option and SIP mode of investment were on top priority in investors' list. It was also found that maximum number of investors did not analyze risk in their investment and they were depending upon their broker and agent for this work. **Singh (2012)** examined that the structure of mutual fund, operations of mutual fund, comparison between investment in mutual fund and bank and calculation of NAV etc. have been considered. In this paper, the impacts of various demographic factors on investors' attitude towards mutual fund have been studied. For measuring various phenomena and analyzing the collected data effectively and efficiently for drawing sound conclusions, Chi-square test has been used and for analyzing the various factors responsible for investment in mutual funds, ranking was done on the basis of weighted scores and scoring was also done on the basis of scale. **Dodia M. Bhavsinh (2012)** studied the importance and growth of mutual funds and evaluates the financial and operating performance of mutual fund industry in India and suggests some measures to make it a successful scheme in India. The explosion of newsletters, magazines, and such rating services as Morningstar attests to the fact that investors spend significant resources in identifying managers with stock-picking ability a better understanding of this issue would naturally be useful for investors, especially in light of the massive inflows that have increased the mean size of funds in the recent past. **Mochi (2012)** analysis that the investors of India increasingly have moved to mutual funds to save their hard earned money for their various goals. Mutual funds can provide the advantages of diversification and professional management. But, as with other investment choices, investing in mutual funds involves risk. Also fees and taxes may diminish a fund's returns. To make mutual funds work for you, you are

required to understand their strategies and risks. On the other side there are thousands of mutual funds to choose from and a lot of options to consider. Gupta (2013) studied about the equity mutual funds that are offered for investment by the various fund houses in India. Though, there are a plethora of equity mutual fund schemes, but the scope of this study is limited to only five equity mutual funds, namely, Reliance Growth Fund, HDFC Equity Fund, Sundaram Select Midcap Fund, and ICICI Prudential. Dynamic Plan and HDFC Tax Saver Fund, which have continuously outperformed, in the market, since their inception. The return generated by each scheme has been analyzed with the help of graphs and tables to illustrate the historical performance of each scheme.

## OBJECTIVE AND HYPOTHESIS

The objective of the study is to analyze the investors' satisfaction regarding liquidity in mutual fund with tentative hypothesis there is no significant difference in investors' satisfaction regarding liquidity in mutual fund.

## RESEARCH METHODOLOGY

The study is based on the primary data and data is collected through field survey by using the well-structured questionnaire with a sample size of 320 respondents from the Haryana. The questionnaire was prepared with the help of expert on five point scales *i.e.* Highly Satisfied, Satisfied, Neutral, Dissatisfied and Highly Dissatisfied (HS, S, N, D and HD). The data was analyzed with the help of various statistical tools, such as mean, percentage, frequency and to test the hypothesis, the chi-square test has been used at one percent level of significance.

## DATA ANALYSIS

**TABLE 1: AGE GROUPS OF THE RESPONDENTS (in years)**

S. No.	Age groups	Frequency	Percentage
1	Up to 30	146	45.6
2	31-40	114	35.6
3	41-50	032	10.0
4	Above 50	028	08.8
5	Total	320	100.0

Source: Primary Data

Table 1 shows the age group of the respondents. Majority of the respondents are up to 30 year age group *i.e.* 45.6 percent of total respondents, 35.6 percent are belongs to age group 31-40 years, 10.0 percent are belongs to the age group 41-50 years and 08.8 percent respondents belongs to the age group of above 50 years.

**TABLE 2: QUALIFICATIONS OF THE RESPONDENTS**

S. No.	Qualification	Frequency	Percentage
1	Under Graduate	036	11.3
2	Graduate	114	45.0
3	Post Graduate	126	39.4
4	Others	014	04.4
	Total	320	100.0

Source: Primary Data

Table 2 indicates the educational qualification of the respondents. Majority of the respondents are graduate *i.e.* 45.0 percent of total respondents, 11.3 percent are under graduate, 39.4 percent are post graduate and very few respondents (4.4 percent) are professional *i.e.* Chartered Accountants, Advocate, Doctors etc.

**TABLE 3: OCCUPATIONS OF THE RESPONDENTS**

S. No.	Occupation of respondents	Frequency	Percentage
1	Service	122	38.1
2	Business	106	33.1
3	Professional	044	13.8
4	Others	048	15.0
	Total	320	100.0

Source: Primary Data

Table 3 depicts the occupation of the respondents. Majority of the respondents are service man *i.e.* 38.1 percent of total respondents, 33.1 percent are business man, 13.8 percent are professional and 15.0 percent are others *i.e.* farmers and students etc.

**TABLE 4: INCOME GROUPS OF THE RESPONDENTS (in lac)**

S. No.	Income Groups	Frequency	Percentage
1	Less than 4	116	36.7
2	4-7	120	37.5
3	7-10	044	17.0
4	Above 10	028	08.8
	Total	320	100.0

Source: Primary Data

Table 4 shows the income groups of the respondents. Majority of the respondents are in the income group of 4-7 lac *i.e.* 37.5 of total respondents, 36.7 percent are less than 4 lac, 4-7 lac are 37.5 percent, 7-10 lac are 17.0 percent and above 10 lac are 8.8 percent.

**TABLE 5: GENDER OF THE RESPONDENTS**

S. No.	Gender	Frequency	Percentage
1	Male	250	78.1
2	Female	070	21.9
	Total	320	100.0

Source: Primary Data

Table 5 shows the gender of the respondents. Majority of the respondents are male *i.e.* 78.1 percent of total respondents and only 21.9 percent of the respondents are female. The table also indicates the male respondents are more aware about the mutual fund than female respondents.

TABLE 6: SATISFACTION REGARDING LIQUIDITY (Age-wise)

Age Groups	HS	S	N	D	HD	Total	Calculated Value	Tabulated Value	p (df=12)
Up to 30	106 (72.6)	22 (15.1)	8 (5.5)	8 (5.5)	2 (1.4)	146 (100.0)	20.42	26.22	.059
31-40	46 (40.4)	48 (42.1)	16 (14.0)	4 (3.5)	--	114 (100.0)			
41-50	14 (43.8)	10 (31.3)	6 (18.8)	2 (6.3)	--	32 (100.0)			
Above 50	16 (57.1)	8 (28.6)	2 (7.1)	2 (7.1)	--	28 (100.0)			
Total	182 (56.9)	88 (47.5)	32 (10.0)	16 (5.0)	2 (.6)	320 (100.0)			

Source: Primary Data (Processed through PASW-18)

Note: Figures in parentheses indicates the percentages

Table 6 shows age wise response of the respondents regarding liquidity in investment. It is clear from the above table majority of the respondents (72.6, 40.4, 43.8 and 57.1 percent) are in the age groups up to 30, 31-40, 41-50, above 50 years are highly satisfied regarding liquidity in investment. 15.1 percent in the age group up to 30 years, 42.1 percent in the age group 31-40, 31.3 percent in the age group 41-50 and 28.6 percent in the age group above 50 years are satisfied regarding liquidity in investment.. Whereas very few respondents (5.6 percent, 3.5 percent, 6.3 percent and 7.1 percent) in the age groups up to 30, 31-40, 41-50 and above 50 years are dissatisfied with the opinion regarding liquidity in investment. After apply the chi-square test the chi-square value (20.42) is less than the table value (26.22) at 1 percent significant level with 12 degree of freedom which shows there is no significant difference among the different age group of the respondents regarding liquidity in investment.

TABLE 7: SATISFACTION REGARDING LIQUIDITY (Educational qualification-wise)

Qualification	HS	S	N	D	HD	Total	Calculated Value	Tabulated Value	p (df=12)
Under Graduate	20 (55.6)	12 (33.3)	4 (11.1)	--	--	36 (100.0)	9.31	26.22	=.676
Graduate	74 (51.4)	38 (26.4)	16 (11.1)	14 (9.7)	2 (1.4)	144 (100.0)			
Post Graduate	78 (61.9)	36 (28.6)	10 (7.9)	2 (1.6)	--	126 (100.0)			
Others	10 (71.4)	2 (14.3)	2 (14.3)	--	--	14 (100.0)			
Total	182 (56.9)	88 (27.5)	32 (10.0)	16 (5.0)	2 (0.6)	320 (100.0)			

Source: Primary Data (Processed through PASW-18)

Note: Figures in parentheses indicates the percentages

Table 7 shows educational qualification-wise opinion of the respondents regarding liquidity in investment. It is clear from the above table, Majority of the respondents (55.6, 51.4, 61.9 and 71.4 percent) are in educational categories under graduate, graduate, post graduate and others are highly satisfied with liquidity in investment and 33.3, 26.4, 28.6 and 14.3 percent under graduate, graduate, post graduate and other respondents are satisfied regarding liquidity in investment whereas very few respondents (5.0 and 0.6 percent of total respondents) are dissatisfied highly dissatisfied regarding liquidity in investment After apply the chi-square test the chi-square value (9.31) is less than the table value (26.22) at 1 percent significant level with 12 degree of freedom which shows there is no significant difference among the different age group of the respondents regarding liquidity in investment.

TABLE 8: OCCUPATION WISE SATISFACTION REGARDING LIQUIDITY (Occupation-wise)

Occupation	HS	S	N	D	HD	Total	Calculated Value	Tabulated Value	p (df=12)
Service	56 (45.9)	50 (41.0)	16 (13.1)	--	--	122 (100.0)	31.46	26.22	.002
Business	60 (56.6)	30 (28.3)	10 (9.4)	4 (3.8)	2 (1.9)	106 (100.0)			
Professional	24 (54.5)	8 (18.2)	4 (9.1)	8 (18.2)	--	44 (100.0)			
Others	--	6 (12.5)	30 (62.5)	12 (25.0)	--	48 (100.0)			
Total	182 (56.9)	88 (27.5)	32 (10.0)	16 (5.0)	2 (.6)	320 (100.0)			

Source: Primary Data (Processed through PASW-18)

Note: Figures in parentheses indicates the percentages

Table 8 depicts the occupation wise opinion of the respondents regarding liquidity in investment. It is clear from the above table that majority of the respondents (45.9 percent, 56.6 percent and 54.5 percent) that is service man, business man and Professionals are highly satisfied regarding the liquidity in investment whereas 41.0 percent service man, 28.3 percent business man, 18.2 percent professional, 12.5 percent from others occupation are satisfied regarding liquidity in investment. Very few respondents (4, 8, 12 percent) occupation-wise i.e. business man, professional, others are dissatisfied and only 2 percent business man are highly dissatisfied regarding liquidity in investment. After apply the chi-square test the chi-square value (31.46) is greater than the table value (26.22) at 1 percent significant level with 12 degree of freedom which shows there is significant difference among the different occupation of the respondents regarding liquidity in investment.

TABLE 9: SATISFACTION REGARDING LIQUIDITY (Income-wise)

Income Groups	HS	S	N	D	HD	Total	Calculated Value	Tabulated Value	p (df=16)
Less Than 4	72 (62.1)	26 (22.4)	14 (12.1)	2 (1.7)	2 (1.7)	116 (100.0)	17.68	32.00	.343
4-7	52 (43.3)	48 (40.0)	8 (6.7)	12 (10.0)	--	60 (100.0)			
7-10	40 (70.4)	8 (14.8)	6 (11.1)	2 (3.7)	--	56 (100.0)			
Above 10	18 (64.3)	6 (21.4)	4 (14.3)	--	--	28 (100.0)			
Total	182 (56.9)	88 (27.5)	32 (10.0)	16 (5.0)	2 (.6%)	320 (100.0)			

Source: Primary Data (Processed through PASW-18)

Note: Figures in parentheses indicates the percentages

Table 9 depicts response of the respondents according to the income level regarding liquidity in investment. It is clear from the above table majority of the respondents (62.1, 43.3, 70.4, 64.3 percent and 22.4, 40.0, 14.8, 21.4) from income group less than 3 lac, 4-7 lac, 7-10 lac and above 10 lac are highly satisfied and satisfied regarding the liquidity in investment and in the income group less than 3 lac, 4-7 lac and 7-10 lac (1.7 percent, 10.0 percent and 3.7 percent) respondents are dissatisfied and income group less than 3 lac only 1.7 percent respondents are highly dissatisfied with liquidity in investment. After apply the chi-square test the chi-square value (17.68) is less than the table value (32.00) at 1 percent significant level with 16 degree of freedom which shows there is no significant difference among the different income groups of the respondents regarding liquidity in investment.

TABLE 10: SATISFACTION REGARDING LIQUIDITY (Gender-wise)

Gender	HS	S	N	D	HD	Total	Calculated Value	Tabulated Value	p (df=4)
Male	122 (48.8)	80 (32.0)	30 (15.0)	16 (6.4)	2 (0.8)	250 (100.0)	15.56	13.23	.004
Female	60 (85.7)	8 (11.4)	2 (2.9)	--	--	70 (100.0)			
Total	182 (56.9)	88 (27.5)	32 (10.0)	16 (5.0)	2 (0.6)	320 (100.0)			

Source: Primary Data (Processed through PASW-18)

Note: Figures in parentheses indicates the percentages

Table 10 shows the gender-wise response for the investors regarding liquidity of money in mutual funds. Majority of the respondents (48.8 percent male and 85.7 percent female) are highly satisfied and 32.0 percent male respondents and 11.4 percent female respondents are satisfied regarding liquidity of money in mutual funds while 7.2 percent only male respondent are dissatisfied or highly dissatisfied but none of the women respondents find dissatisfied regarding liquidity of money in mutual funds. The application of chi-square test shows that there is significance difference in the opinion of male and female respondents regarding liquidity of money in mutual funds because the calculated value (15.56) is greater than the tabulated value (13.23) at one percent level of significant with four degree of freedom.

## CONCLUSION

It is concluded that majority of the respondents in all the categories i.e. age, qualification, income, occupation and gender are satisfied or highly satisfied with the opinion regarding liquidity in mutual funds investment.

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### ABSTRACT

*In this research, the researcher has used qualitative research technique to understand the problems faced by the African students in India particularly in Tamil Nadu state (province) of India. For this purpose, the researcher has used in-depth interview methods and interview 40 African students are pursuing their collegiate education in Namakkal district of Tamil Nadu, India. The research was conducted during August 2013 to December 2013, for a period of five months. The study found that the major challenges are the cultural adjustment challenge especially during the initial days, availability of home country food, non-availability of part-time jobs and communication barrier.*

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#### KEYWORDS

African students, International students, Cultural adjustment, Challenges, Problems, Education in India.

### 1. INTRODUCTION

India is a multi-cultural country which cherishes the diversity that is brought by the multi-cultural community. Indians, in general, are tolerant and treat the visitors (guest) as if they have received the god. The international students add to this cultural diversity of India. Since 2000, Indian universities and colleges have been attracting good number of foreign students for their collegiate education especially for their higher education and most of the international students are from African countries. Even though the African students come with a perception and understanding of India and Indian culture, they face serious cultural challenges during the initial transition period. The African students feel a cultural shock and which results in stress, anxiety, powerless and loneliness. International students indicate a stronger preference for making friends from the same country or students from other nations over students from the host county (Zhao, Kuh, & Carini, 2003). The international students prefer preparing their own food during their initial transition period than trying the Indian food varieties. And, also the African students in India prefer to have their own transport arrangement between the places of residence and the educational institution. It should be noted that the dress and other accessories they wear reflect the culture they bring in. Some time student absenteeism, classroom disturbance, dress code violation and skipping class behaviors had very high negative correlation with teachers' expectations for student achievement (Gu, Lai, & Ye, 2011). Nasir (2012) argued that the Cultural adjustment had significant predictive value for academic achievement of foreign students and students in the initial year face more challenges in adjusting to the local culture. Nayak & Venkatraman (2010) in their research highlighted that the students found it difficult to overcome the change in academic culture (academic expectations) and any academic failures in the first semester (from their arrival) resulted in a series of failures. A lot can add to culture shock, the extent to which an individual "feel fit in" the community, the sense of belonging, personal interactions, friends, as well as positive and negative treatment by the host community or country at large (Akinola, 2014). Cultural factors affect international student loneliness in two distinct ways. First, many students find themselves missing their own cultural and linguistic setting, often intensely and cross-cultural relationships (Sawir et al., 2007).

### 2. METHODOLOGY

In this research, an attempt has been made to find out the challenges faced by the African students in Tamil Nadu, India. This study was guided by the qualitative researches conducted in this area by eminent researchers like Gebhard (2012), Nasir (2012) and Talebloo & Baki (2013). The researcher has used qualitative research technique to understand the problems faced by the African students in India particularly in Tamil Nadu state (province) of India. A detailed questionnaire was prepared and the data were collected through interview method from a sample (size) of 40 African students who are currently pursuing their collegiate education in Namakkal district of Tamil Nadu, India. Though, the research tried to meet more than 100 students who are studying (exact number of students in Namakkal district is not available) in Namakkal district of Tamil Nadu, many of the students are not interested in giving an interview. The study was carried out during August 2013 to December 2013, for a period of five months.

### 3. RESULTS AND DISCUSSION

#### 3.1 PART I: PROFILE AND LIFE OF THE AFRICAN STUDENTS IN TAMIL NADU

The demographic profile of the African students in the chosen sample is described in this section.

##### 3.1.1 NATIONALITY, AGE GROUP, GENDER, RELIGION AND MARITAL STATUS

Out of the 40 African students interviewed by the researcher 36 students are from Kenya and 2 students from Uganda and 1 student each from Mozambique and Tanzania. It is learned that majority of the African students are from Kenya and most of them replied that they have come to India for their study as many of their seniors are studying in India. So, this word-of-mouth communication is acting as a powerful promotional tool for education sector in India. The very young African student in the sample is aged 18 and the very senior student is aged 27. Majority of the students are 23 years old and the average age of these students stand at 23.47 years. This is a little higher than the normal age group of Indian students in the collegiate education in India. There are seven female students in the sample and the remaining 33 students are male students. All the students in the sample follow Christianity. There are three married students in the sample consisting of 2 female and 1 male students.

##### 3.1.2 COURSE OF STUDY, LIVING EXPENSES AND FINANCIAL SUPPORT

In the selected sample, 9 students are pursuing post-graduation in which 4 students are doing their MBA and the remaining students are pursuing their post graduation in either microbiology or computer science. Among the remaining 31 students who are pursuing their under graduation equal number of students have studying commerce, business administration, computer science bio-chemistry and microbiology. The individual student's previous academic qualifications could become a challenge if it is not in tune with course requirements and the support provided (Andersson, 2008). It is inferred that India has emerged as the major education centre for African students for their under-graduation and slowly more and more African students started accepting India as the destination for their higher education and they are yet to decide continuing their research studies in India. Majority of the African students are financially dependent on their parents for paying their education and other expenses in India, i.e their parents are sponsoring their studies interestingly one female student said that her expenses were paid by her husband and another student told the researcher that replied that his grandmother is taking care of his expenses. One student answered that his expenses are taken care of his uncle and another student replied that his relative is sponsoring his education related expenses in India which when he reaches home need be settled on a priority basis. This shows that around ten percent of students study with the help of financial support extended by

other than parents. The African Students on an average spend Rs.2400 (51%) for food expense, Rs. 1000 (21%) for house rent, Rs.600 (13%) for travel, Rs.500 (11%) for entertainment and Rs.200 (4%) for education related (purchase of stationery, study material/ books etc.,) expenses besides that tuition fee which depends on the course (subject of study) and also varies with institution.

### 3.1.3 REASONS FOR CHOOSING INDIA AND CAREER GOAL

The following are the reasons for choosing India to pursue their studies by the African students.

1. The duration of courses or period of study is more in African countries.
2. The cost of education is high in their country.
3. The availability of seats is very much limited and therefore, is very difficult to get seats.
4. The availability of preferred course (subject) is also either limited or not at all available.
5. In order to get exposure and desire to pursue their studies in other countries also motivated many students to come to India.

Had it not been India, majority of the African students have replied that their next choice would have been USA, Australia, UK, or Singapore. Some students replied that their alternative destination would have been France, Germany, Norway or Canada. The researcher observes that the students have chosen India mainly because of the cost of education in those above mentioned countries are many times more than India. So, Indian educational institutions need to understand that in order to attract foreign students they have to keep on providing quality education at very internationally competitive cost/price. Majority of the students opined that Oxford university, Cambridge university and Harvard university as the best institutions or universities in the world. So, in other words, the image of Indian educational institutions is not that of a very prestigious or premium institution but of a value for money educational institutions.

Majority of the African students want gainful employment in the industrial sector. Among the 40 African students in the sample, 7 students want to have a career in the research and 3 students replied that they are seriously interested in becoming an eminent entrepreneur in their country with a noble thought of contributing to the nation in the form of employment creation, income generation and serving the society through quality products and services. Majority of the African students want to return back to their respective countries to start their career but around ten percent of students wish to continue in India provided they are given matching job opportunities. It proves that many students may have a positive frame of mind about India and Indian social environment and feel that India is a home away from home.

## PART- II CHALLENGES FACED BY THE AFRICAN STUDENTS IN TAMIL NADU

### 3.2.1 PERCEPTION OF AFRICAN STUDENTS ABOUT THEIR FELLOW INDIAN STUDENTS AND CULTURAL ADJUSTMENT CHALLENGES

The African students feel that the local students (students of southern Indian region) are friendly in nature, honest, helpful and have good subject knowledge. The African students feel that some students from the local area do not have adequate exposure and do not possess required communication skill. The African students opine that the North Indian students have good subject knowledge, good exposure, friendly and communicative but on the contrary they are little lazy in their approach to studies. The researches show that international students were more engaged in educationally purposeful activities than host country students, especially during the first year of college (Zhao, Kuh, & Carini, 2003). African students feel Indian culture is the most significant challenge they face in India, in a ten point scale (Zero indicates no barrier and Ten indicates perfect barrier) African students have given an average score of 7.72 indicating culture as the biggest challenge or barrier for African students in India. The researcher observes that the students after coming into India, experience a cultural shock for the initial period (roughly two to three months) before getting adjusted to the new cultural environment. Some students expressed their desire to take part in the local festivals as they are curious of knowing the local festivals and expect the host country students to invite them but which is not happening. This finding matches with many past researches. Talebloo & Baki (2013) have found that the students have also faced social environment challenges which in turn are categorized into two main groups: cultural difficulties, English difficulties and communication problems. Gebhard (2012) stressed that although certainly international student needs to make efforts to adjust, it is not right to place all the responsibility for cultural adjustment on the international student. Identifying the cognitive, behavioural, and emotional strategies these students utilize in adjusting to a new culture in a positive way will provide college counsellors and personnel with a better overall understanding of the students they serve (Olivas & Li). The African students are finding it difficult to get the food of their choice but some students are told the researcher that they are happy as it offers them an opportunity to try (new) Indian food items. Some students prefer to prepare on their own particularly for breakfast and supper. Few African students opined that the variety of alcoholic beverages availability is creating little discomfort for the foreign students. The dress code of students in India varies from institution to institution. The educational institutions have uniform (dress code) for students till school level (12<sup>th</sup> standard) but they do not normally insist when they come to collegiate education. It should be worth noting that the African students prefer to wear the dresses (ethnic wear) that showcase their culture and identity. They believe it is a way of expressing and also enjoying the freedom. But, they feel that the host country nationals and students are not supportive of their dressing.

### 3.2.2 COMMUNICATION BARRIER

The research is of the opinion that the communication is not just only a medium of passing information but it is also a facility to share or express feelings. Many African students told the researcher that there is a communication gap like cultural gap that exist between the native or host country students and foreign students. Though the medium of instruction is English at the college level, the host country students prefer to communicate with their fellow host country students in their mother tongue. Most of the host country students do not normally initiate a discussion in English as they have used to speaking only in their (local) language for matters related to current affairs and many students even though good in English believe that it is only for their study related matters and not for general discussion. The researcher observes that some of the junior level teachers interact with the host country students in their local language which is not well taken by the African students. The language barriers have created a barrier to building friendships with local nationals and host country students (Kuo, 2011).

### 3.2.3 JOB OPPORTUNITY –RELUCTANCE TO TAKE INTERNATIONAL STUDENTS

The job opportunities are plenty in India as it is one of the fast growing economies in the world. Yet the employers are reluctant to provide job opportunities to students. African students feel that a part-time job will be handy in handling their expenses in India and also it is a way the locals can recognise them. The researcher observes that India could see multi-fold increase in foreign students' arrival if they get part-time jobs easily. The foreign students also find it little difficult to get project and internship in regional or local companies.

## 4. SUGGESTIONS

The researcher would like to make three important suggestions to the government and also to the civil society in India.

1. The local industries need to consider giving project, internship and job opportunities to African students on a priority basis as they are talented and willing to take part in the value creation and value delivery of industries. They are adaptive and fast learners, so an opportunity would bring out the real skills of these students. The companies need to think the right job (place) to put these foreign nationals.
2. The host country citizens need to come forward to understand the culture of African students. The locals need to invite the foreign students to take part in the local festivals which will bridge the cultural gap and create a very comfortable environment both for the locals and the foreign students.
3. The Indian educational institutions need to improve the quality of their educational service. Now, African students prefer India for its cost advantage as they hold the image "value for money" for Indian education. In the future, the cost advantage may become a less influencing factor in the choice of destination. The Indian educational institutions need to modernise, come out of the traditional clutches that imbibe imparting quality education to the students, for example monotonous class room lectures without an application orientation.
4. The government or NGOs may conduct orientation classes for incoming African students in India. The NGOs or passed out senior students in concerned African countries can start orientation classes for the new outgoing (to India) students.

## 5. CONCLUSION

The study aimed at finding out the African students' life in Tamil Nadu, India focusing on the reasons for choosing India (especially Tamil Nadu, the southern-most part of India, a province India). The study was carried out during August 2013 to December 2013, for a period of five months. The study was conducted through the interview method. The research is a qualitative research does not focus on numbers but on the issues. For this purpose the researcher interviewed 40 African students who pursued their collegiate education in Namakkal district of Tamil Nadu, India during the research period. The research found that even though many African students feel like a home away from home, there are areas of weaknesses. They students are comfortable with natural climate but not the cultural climate. They feel that Indian students are less communicative in English. Many Africans come to India with clearly set goals like after completing their education they want to go back to their native places for starting their career. The author would like to suggest to Indians and Indian students to be more accommodative of the expectations of African students.

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**UNORGANIZED INFORMAL SECTOR AND FEMALE LABOUR IN REFERENCE TO CITIES OF UTTAR PRADESH**

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**ABSTRACT**

It is widely acknowledged that the informal sector in India suffers from a low productivity syndrome, compared to the formal sector. The prominent features of the sector are lower real wages and poor working / living conditions. Further, the sector is characterized by excessive seasonality of employment (especially in the farm sector), preponderance of casual and contractual employment, atypical production organizations and work relations, absence of social security measures and welfare legislations, negation of social standards and worker rights, denial of minimum wages and so on. An estimate by the World Bank shows that 90% of the women working in the informal sector are not included in the official statistics and their work is undocumented and considered as disguised wage work, unskilled, low paying and do not provide benefits to the workers. It is also found, that there is discrimination in wages, nature of work, availability of work, on the basis of sex. In society females are lag behind male but they are equally contributing in the process of economic development. Therefore a need was felt to study the contribution of female in the unorganized sector of cities. The present study adds potential contribution to knowledge in the field of social relevance or national importance. The Present study takes in to account Agra, Noida and Gaziabad as these are the three mega cities of Uttar Pradesh. A simple random sampling design will be used for the selection of sample. Primary data collected from 200 samples respondents through structural questionnaires by interview method. Simple findings are that the female workers admitted that if they were given some help from the government and society, they could also have a more honorable living. The paper suggests some policy framework on which efforts recommended from the society and the governments.

**KEYWORDS**

Female worker, unorganized informal sector.

**INTRODUCTION**

Employment in informal sector comprises one half to three-quarters of non-agricultural employment in developing countries. The concept of informal sector was first introduced by Hart with the distinction between wage and self employment as the essential difference between the formal and informal sectors. Later ILO broadened the scope of the informal sector. Informal activities are typically characterized by ease of entry, reliance on indigenous resources, family ownership of enterprises, small scale of operations of labour intensive and adaptive technology, skills acquired outside formal schooling system, and unregulated and competitive markets. It is characterized by non uniformity in the nature, characteristics and conditions of jobs. The informal sector consists of regular workers and casual labour, self employed and those working for others, illiterate to semi-educated, in all age groups (including below and above the normal working age bracket). The estimated number of unorganised manufacturing enterprises in India during 2005-06 was 17.07 million. A total of about 36.44 million workers were estimated to be working in unorganised manufacturing enterprises.

Unorganized sector is divided into three types of enterprises, these are: Own Account Manufacturing Enterprise (OAME), Non-Directory Manufacturing Establishment (NDME), Directory Manufacturing Establishment (DME). Own Account Manufacturing Enterprise (OAME) is one, which runs without any hired worker employed on a fairly regular basis and is engaged in manufacturing and/or repairing activities (with family labor only). The OAMEs always have largest share in total employment generation in the unorganised manufacturing sector of India. But their share in gross value added and fixed assets slipped to second rank in 2005-06 as the share of DMEs increased from 33.42 per cent per annum in 1994-95 to 43.91 per cent per annum in 2005-06 in case of GVA and from 34.87 per cent per annum in 1994-95 to 36.62 per cent per annum in 2005-06 in case of fixed assets, whereas the share of NDMEs had remained almost stagnant during this time period. Table-1 show growth rate of labour productivity in unorganized sector in india by type of enterprises during the period of 1994-95 to 2005-06.

**TABLE-1: GROWTH RATE OF LABOUR PRODUCTIVITY IN UNORGANIZED MANUFACTURING SECTOR IN INDIA BY TYPE OF ENTERPRISES (at Current Price)**

Type of Enterprises	Rural		Urban		Combined	
	1994-95 to 2000-01	2001-02 to 2005-06	1994-95 to 2000-01	2001-02 to 2005-06	1994-95 to 2000-01	2001-02 to 2005-06
OAMEs	10.56	3.59	4.40	1.96	8.62	3.08
NDMEs	10.33	7.07	9.08	6.62	9.63	6.13
DMEs	10.52	14.57	7.28	11.41	8.02	12.55
All Enterprises	10.32	7.59	7.06	8.26	8.81	8.02

Source: calculated from NSSO-1998, NSSO-2002 and NSSO-2008

The rank of Uttar Pradesh and West Bengal had been interchanging with that of Tamil Nadu and Maharashtra during 1994-95 and 2000-01 due to variations in growth of productivity, employment and fixed assets across the regions.

**TABLE-2: GROWTH RATE OF CAPITAL PRODUCTIVITY OF UNORGANIZED MANUFACTURING SECTOR IN UTTAR PRADESH (AT CURRENT PRICE)**

Uttar Pradesh	Rural		Urban		Combined	
	1994-95 to 2000-01	2001-02 to 2005-06	1994-95 to 2000-01	2001-02 to 2005-06	1994-95 to 2000-01	2001-02 to 2005-06
	-1.78	2.18	-3.53	6.26	-2.54	4.16

Source: calculated from NSSO-1998, NSSO-2002 and NSSO-2008

According to the Economic Survey 2007-08 agricultural workers constitute the largest segment of workers in the unorganized sector (i.e. 52% of the total workers). As per the National Sample Survey Organization (NSSO), 30 million workers in India are constantly on the move (migrant labour) and 25.94 million women workforce has been added in the labour market from the year 2000 onwards. An estimate by the World Bank shows that 90% of the women working in the informal sector are not included in the official statistics and their work is undocumented and considered as disguised wage work, unskilled, low paying and do not provide benefits to the workers. It is also evident that female workers rely more on the informal sector than men -- the shares of female non-agricultural employment in the informal sector are generally (and often substantially) higher than those for male workers. But women's participation in terms of their share of informal sector employment is more mixed. In India, almost 94% of total women workers are engaged in informal sector, of which about 20% work in the urban centre. Majority of women workers in informal sector come from those sections of the society which need income at any cost. Nearly 50 per cent of these women workers are sole supporters of their families. Another startling fact is that out of all women workers a mere 7.5% are availing the membership of authentic registered trade unions. Yet another fact to cause concern is that women have to work, unpaid, even outside home, for some 5-8 hours to help their other family members. This fact has to be considered alongside the fact that an average woman has to work at home for some 7-8 hours doing household chores including upbringing the children. Most of the women workers lack proper training. They have very few options to avail as far as gainful jobs are concerned. The quiet contributors to the effortless movement of the social carriage, the women workers engaged in informal sector are poor, perhaps poorest amongst poor, uneducated and weak. The social discrimination against women reflects not only in the political, cultural, educational and other aspects, but also in their



participation in Economic activities. Gender discrimination stems from the concept of traditional gender roles that women cannot be as good as male or female is subordinate to men (Chuang Yu-Xia, 2005), this stereotype thinking has led to women's low social recognition, low-evaluation, resulting a variety of gender-based discrimination. According to the 2001 Census, there were 496.4 million women in India, out of India's total population of 1028 million. It was also estimated that the unorganized / informal sector workers as comprising about 86% of work force in the Indian economy in 2004-2005 and informal employment both in the organized and unorganized sector was recorded as 92%. About 38% of the total workers were females. Further, 39% of all working owners were female.

The Present study takes in to account Agra, Noida and Gaziabad as these are the three mega cities of Uttar Pradesh and blessed with good basic infrastructural facilities and resources. These cities are contributing to great extent in the process of economic development of the State.

## OBJECTIVES OF THE STUDY

The major objectives of the study are as follows:

1. Find out basic problems of unorganized sector in cities of Uttar Pradesh.
2. Evaluating the socio economic status of female involved in informal sector activities in cities of Uttar Pradesh.
3. Identification of the factors which influence the working of the female in informal sector in cities of Uttar Pradesh.

## METHODOLOGY

The Present study takes in to account Agra, Noida and Gaziabad as these are the three mega cities of Uttar Pradesh. A simple random sampling design will be used for the selection of sample. Both Primary and secondary data will be used in the analysis. Primary data will be collected from 200 samples respondents through structural questionnaires by interview method. Simple statistical tools used for the simple presentation of findings in the present study.

## LITERATURE REVIEW

Weeks (1975) tried to analyse the determinants of growth of output and employment in the informal sector of the less developed countries using an input-output framework. He categories the economy in to four sectors i.e agriculture, informal, private formal and government sectors. Bunkhouser (1996) pointed out patterns of employment and structure of earnings in the urban informal sector in five Central American countries - Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica. He found that the size of informal employment was between 60-75 per cent of labour force in the first three countries, the male-female differential in earning was found to be above 254 per cent. Other major findings were significant negative relationship between level of education and informal sector employment, and higher probability for poor families to be employed in the informal sector. Schneider and Enste (2002) described a good recent review of empirical literature on informal sector across the globe. Dhesi and Wadhwa (1983) in their research paper analyzed the characteristics of the participants and enterprises in the informal sector and their linkages with the formal sector, in Nangal (Punjab, India) in 1980. Romatet (1983) in his research article surveyed Calcutta's informal sector to look into their characteristics. He focused mainly on the tailoring industry at Garden Reach and tanneries in the eastern outskirts of Calcutta and also some of the plastic processing units. He found that the slums are not only the areas with extremely dense population but they are the areas which are characterized by intense informal economic activities.

Dasgupta and Gang Ira N (1985) proposed a general model of dualistic economies with urban informal sectors. Swarooparani and Galab (1998) in their paper (based their study on primary survey of sandal making activity in the slums of Hyderabad city) shown the nature of different methods of organization of production, and its relationship with the economic performance of the enterprises. Kundu (1993) studied in detail the problem of comparability of secondary data pertaining to unorganized activities in India. The growth of informal sector in less developed areas is due to the survival strategy adopted by poor residents taking up traditional and low productive activities.

Shaw (1994) made an attempt to look into the manufacturing activities in the informal sector in India and the growth of these activities between 1971-91 in the national level and the regional dimension of these activities at the state level. The findings of the study show that the share of informal sector in total manufacturing employment declined from 82.5 per cent in 1961 to 69.3 per cent in 1981. The share of informal sector in manufacturing employment increased to 73.6 per cent in 1991. She also found that Maharashtra, Tamil Nadu, Karnataka, Andhra Pradesh, Madhya Pradesh accounted for 58 per cent of net value added from the registered small scale industries. The major contributor to total output was Maharashtra, Tamil Nadu, Uttar Pradesh, Andhra Pradesh, Gujarat, Punjab, West Bengal and Karnataka. In terms of employment, Tamil Nadu, Maharashtra, Uttar Pradesh, West Bengal and Gujarat accounted for 54 per cent of the total. She concluded that more active governments' supports both in terms of encouraging investment and providing infrastructural facilities, can develop the informal sector.

Chadha (1999) examined the growth dynamics of different segments of informal manufacturing sector in India between 1984-85 and 1994-95 separately for rural and urban areas. This 1994-95 data show an overall reversal of trend and a move towards market oriented growth of the informal sector. Anand (2003) analyses the common characteristics of informal sector in general, and specifically in India, and outlines the policy framework necessary for informal sector development.

ILO (2006a, b), Bhatt (2006), Mehrotra and Biggeri (2002) in their study concentrated on measuring the amount and nature of access to credit, welfare funds, insurance and so forth. Their work typically operates at very low levels of organization and scale. They lack formal space for operations, and have to protect themselves from harassment by local authorities. Moreover, they face a number of serious health and safety risks including dangerous working conditions and gendered violence. Hence they often contend with insufficient infrastructure and a range of time and space constraints for productivity.

Mukherjee (2009) in her study explored the informal manufacturing sector in India both intensively and against the broader macroeconomic perspective to examine its past trends. This paper highlights the findings of a study of pan shops located in the urban sectors of Ahmedabad and Anand. There are very few entry and exit barriers to this business which can be started with very little capital and special skills. Shaw (1990) in her research article analyzed the interaction and linkages between informal sector and large scale sectors in Thana-Belapur region based on field survey during September-December 1980. It was found that the informal sector workers were not protected from health hazards originating from those wastes and most of the labourers were women. Martin Patrick (1998) attempted to study the saleswomen working in the registered shops and establishments by analyzing the aspects of discrimination, time allocation and migration. Many employers tend to pay low wage to the women on the plea that they have low level of skill. Various studies by Papola (1982, 92) [8], clearly and emphatically show another amazing fact that, the urban labour market discriminates against women much more than the rural labour market.

There are many studies across the globe on female workforce participation to find out the trend and pattern of female workforce participation with respect to different socio-economic background and characteristics. (Ghosh, 2004; Karan and Selvaraj, 2008; Khanna, 2012). Some studies conclude that in India, women workforce participation is the lowest among urban women. However, in rural India, the poverty considerations lead to greater labour force participating among women. Women representation in the informal sector is attributed to a variety of factors. One such factor is the fact that employment in the informal sector is the source of employment that is most readily available to women. A vast majority of women are employed from their homes (most likely due to the large number of women who are involved in care work or are street vendors, which both are classified in the informal sector (Chen, M 2001) Sixty percent of female workers in developing countries are employed by the informal sector. (Beneria, Lourdes and Maria S. Floro, 2006). A study noted that cultural norms, religious seclusion, and illiteracy among women in many developing countries, along with a greater commitment to family responsibilities, prevent women from entering the formal sector. (Jahiruddin, ATM; Short, Patricia; Dressler, Wolfram; Khan, Adil (2011).

The gender gap in terms of wage is even higher in the informal sector than the formal sector Very few women are employers who hire others and more women are likely to be involved in smaller scale operations. (Carr, Marilyn and Martha A. Chen. 2001). Labor markets, household decisions, and states all propagate this gender inequality. Women tend to make up the greatest portion of the informal sector, often ending up in the most erratic and corrupt segments of the sector. Men tend to be overrepresented in the top segment of the sector and women overpopulate the bottom segment (UNRISD. 2010).

**FINDINGS**

**I- PROBLEMS OF UNORGANIZED SECTOR ARE IDENTIFIED**

- ✓ Problems of the workforce- 90% of workforce in vast informal sector, little awareness of workplace hazards, living areas close to work areas, extended work hours, exploitation, no concept of occupational safety/services, lack of implementation of Health & Safety legislation, no concept of Trade/Labour Union.
- ✓ Problems of women workers- Desperately poor low wages, fraudulent contractors, disease causing environments, child labour, and >50% women Deplorable social conditions.
- ✓ Workforce uneducated about the benefits, scattered nature of sector, employers avoid any form of regulation, unorganized sectors contribute to almost 60% of GDP (apart from providing livelihood to population), labour laws cannot be applied.
- ✓ Unfair competition (Wal-Mart, Reliance), financial aid not available to the unorganized sector easily to compete.

The unorganized manufacturing sector, being dominated by very small family based enterprises, generally face many problems. These problems are like problem of non-availability of electricity connection, power cuts, shortage of capital, non availability of raw materials, marketing of products/services, local problems, problem of competition from larger units, labour problems, fuel problem, non-recovery of service charges and lack of infrastructure. As a result of these problems, these unorganised manufacturing units are having large under-utilised and low-productive labour force (Mukherjee, 2009). So, here an attempt has been made to analyse the extent of these problems in the unorganised manufacturing sector of India during 2005-06. About 68 per cent of the enterprises have to face some problems on one pretext or another.

The UN Gender Inequality Index has ranked India below several countries. Despite India being the second fastest growing economy in the world, gender disparities have remained deep and persistent in India.

**TABLE-3: PROBLEM FACED BY % OF ENTERPRISES IN UNORGANIZED MANUFACTURING SECTOR IN UTTAR PRADESH BY TYPE OF ENTERPRISES (2005-06)**

Type of enterprises	Problems identified											
	No specific problem	Non availability of electricity	Power cut	Shortage of capital	Raw material shortage	Local problem	High competition	Energy resources	Labour problem	Lack of infrastructure	No recovery of service charge	Marketing problem
OAMEs	33.6	11.9	11.5	41.3	14.5	3.2	14.3	0.8	3.2	3.8	6.6	17.6
NDMEs	22.2	6.1	31.8	49.6	9.4	2.2	24.0	0.5	2.2	3.1	5.5	18.0
DMEs	28.3	4.6	32.8	37.9	10.9	1.5	23.1	0.9	1.5	3.1	3.6	16.4
All Enterprises	32.2	11.0	14.4	42.0	13.8	3.0	15.6	0.8	3.0	3.7	6.4	17.5

Source: calculated from NSSO 2007 and state reports

A big chunk of them (42 per cent) face the problem of shortage of capital and this problem is more acute in case of the NDMEs (with 49.6 per cent units struggling with the problem of shortage of capital). About 33 per cent of the DMEs and 32 per cent of the NDMEs face the problem of power cuts. A big number of these enterprises also face the problem of competition from larger units. In case of OAMEs, these two problems are lesser in degree as compared to other type of enterprises due to simple processes of production and sales in local market. However, as compared to NDMEs and DMEs they suffer to a greater extent in case of getting electricity connection, procuring raw materials, recovering service charges and availability of required infrastructure. Now for a deeper insight we shall analyze these problems in different sectors in the unorganised manufacturing sector of Uttar Pradesh.

**II- SOCIO-ECONOMIC STATUS OF FEMALE INVOLVED IN INFORMAL SECTOR ACTIVITIES IN CITIES OF UTTAR PRADESH**

Women seek jobs in informal sector because it is easy to enter this sector. Chen (2001) infers that women are more visible in the most lower-value added activities of the informal economy. There are little or almost insignificant barriers of skill, training and other formalities in the informal Sector. This sector provides an easy source of income to the unskilled and uninitiated women folk of our country. The women workers continue to work in the same unit or same category of work for the lack of knowledge of a better alternative or most often lack of enough initiative to move from their familiar atmosphere to absolutely new field. All of these women are doing this job to supplement their family income barring a very small percentage who manages their livelihood from this work. Problems of women workers- Desperately poor low wages, fraudulent contractors, disease causing environments, child labour, and >50% women Deplorable social conditions. Chen (2001) infers that women earn on average a lower wages than men with gender-wage-gape being greater than in formal sector. The results of the survey are summarized in Table-4 to give a bird's eye view of the situation of women workers in the informal sector in the urban areas.

**TABLE-4: SOCIO-ECONOMIC STATUS OF FEMALE INVOLVED IN INFORMAL SECTOR ACTIVITIES IN CITIES OF UTTAR PRADESH**

	Job selection	Job conditions	Wages	Discrimination
<b>Domestic Workers</b>	Near to residence Skill lacking Economic crises	Non defined Increment and other benefits only in long run	Partially negotiable Very low and uncertain	More preferred female than male
<b>Construction Workers</b>	No Skill required Home less Economic crises	Local contractor's choice	Daily bases/ contract base Uncertain	Discrimination in work and wages based on gender
<b>Garment workers</b>	Office job Economic crises	Undefined Depends on production and sale	Commission base Partially negotiable	No incidence reported
<b>Vendors</b>	Self employment motivation Economic crises	Self interest Market capturing knowledge	Uncertain	No incidence reported
<b>Sales person</b>	More dignified Economic crises	Tedious and risk of personal assaults	Commission base Regulating law	No incidence reported

Source: classified on the resonance bases

**III: FACTORS WHICH INFLUENCE THE WORKING OF THE FEMALE IN INFORMAL SECTOR IN CITIES OF UTTAR PRADESH**

Following is a detailed analysis on the findings of the survey which includes observations of the researchers while conducting the survey:

- ✓ All the workers feel that the wages are not enough to satisfy their bare minimum needs.
- ✓ Wage discrimination on basis of gender could not be ascertained in domestic worker. A World Bank finding was that women were more preferred to work as domestic help as against males.
- ✓ The construction workers normally are migrants coming from nearby villages. They depend upon local contractors for work as well as wages.

- ✓ There is no regularity or security of job.
- ✓ Almost all of them complained of ill-treatment and harassment at the hands of contractors. There was an indirect hint to sexual harassment in terms of language and gestures.
- ✓ The mode of payment in sales profession is mainly work based, which they call commission. This commission is unbelievably low and arbitrary.
- ✓ All of these women reported the need to earn to support family needs such children's' education and daughters' marriage.

## RECOMMENDATIONS

The women workers do not have a choice to work, or not to work, due to dire need of income. The limited opportunities available to women are mostly low paid, low status jobs in the informal sector; jobs which do not have any possibilities of betterment, advancement of efficiency or training, to enable them to enter better jobs at a later stage. In the overall state of unemployment and lack of opportunities, women hold a secondary place to men in the race of employment. If half of the work force is forced to earn as low as two third of the other half, the ultimate sufferer is the economy as a whole. A very large proportion of women workers admitted that if they were given some help from the government in the form of money support or training or machines etc., they could also have a more honorable living. It is strongly recommended that mere framing of policies and Acts may not serve the purpose. Though organization like SEWA aims to mainstream marginalized, poor women in the informal sector and lift them out of their poverty. Work has to be done at the grass root level with proper feedback system in place to ensure that policies of equal treatment for equal work are actually giving results.

These papers suggest some policy framework on which efforts recommended from the society and the governments are:-

- The vulnerability and lack of autonomy of poorer informal workers means that for all of these „rights stages“ to be realised, there is a need for *informal worker organization* on state level and protected from national level.
- Transformation of women from informal workers to entrepreneurs by *facilitating the supporting training programs and opportunities in business expansion* decision making. (Avon. Scot et al, 2012).
- Policy makers would do well to recognize that women focused programmes must be supported by *public-private partnership* to improve *social protection, health services, savings, disability insurance and maternity or other reproductive health services*.

## CONCLUSION

We must remember that by ignoring these women workers we are ignoring important contributors to national income of the country. In society females are lag behind male but they are equally contributing in the process of economic development. Therefore a need was felt to study the contribution of female in the unorganized sector of not only in cities but on state and national ground. The present study adds potential contribution to knowledge in the field of social relevance or national importance for present as well as in future.

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## WAGNER'S LAW IN INDIA: AN EMPIRICAL ANALYSIS

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## ABSTRACT

This paper analyzes the applicability of Wagner's law in Indian economy using time series annual data over the period from 1970 to 2012 for India. This study keeps a special focus to check the validity and applicability of six versions of Wagner's hypothesis, which support the existence of short run as well as long run relationship between Economic growth and Public expenditure. For find out the applicability of Wagner's law various econometric techniques (Co-integration, VECM, Granger Causality) were used. Granger Causality analysis confirms that both economic growth and Public expenditure have in both sides i.e. unidirectional, bidirectional. Therefore the findings of this study pay a broader role to understand the relationship between economic growth and public expenditure in context of Indian economy.

## KEYWORDS

Wagner's Law, Economic Growth, Public Expenditure, Co-integration, Vector Error Correction Model.

## 1. INTRODUCTION

Welfare of the society is the main drive for the government. It is urgently required in all the developed and developing countries to meet-out the balance between the development and the role of the government. After the World War 2<sup>nd</sup>, every country had tried to achieve rapid economic growth and a sharp increase in public expenditures as well as GDP. Every government also tries to avoid the condition of fiscal deficit and to control their Public Expenditure and Revenue. In this order fiscal policy is the centre point of development, which is the fundamental instrument to control the trade cycle in the economy. Fiscal policy has considered a centre stage in policy making. It is a tool in the hand of government, through which every economy attempt to promote its developmental growth. In India the government is playing a crucial role to maximize the welfare of society through its revenue. It has been observed that the role of government has increased with the passage of time despite having privatization but in the sense of regulations. There is continuous rise in fiscal deficit in India. There is a continuous increase in expenditure whereas there is not much increase in growth in GDP. Therefore a need arises to see that whether the increase in public expenditure is really supports increase in the growth. For this purpose, Adolph Wagner has introduced a law that is known as "Wagner's Law", which states that the role of government increases with the economic growth.

Adolph Wagner (1835-1917), German economists who has formulated the law of increasing public expenditures in 1883 which is popularly known as hypothesis of Wagner's law. He is best known for his principle of 'increasing state intervention in industrializing nation'. The law suggests that the share of public sectors in the economy rises as economic growth increases. Wagner observed the existence of relationship between economic growth and public spending and later formulated a law of increasing state activity. The primary idea behind this relationship is that the growth in public expenditure is a natural consequence of economic growth. In other words, the percentage share of public expenditure increases with an increase in Gross Domestic Product (GDP). Further, Wagner hypothesis emphasizes that in the process of economic development. The government's economic activity increases relative to private economic activity. According to Wagner, the reason behind the states activities is a practical approach and is not based upon any formula. So, Wagner offers three reasons<sup>3</sup> for this: **First**, with economic growth industrialization and modernization would take place which will diminish the role of public sector for private one. This continuous diminishing share of public sector in the economic activity leads to more government expenditure for regulating the private sector. **Second**, the rise in real income would lead to more demand for basic infrastructure particularly education and health facilities. Wagner asserts that it is the government who can provide these facilities more efficiently than private sector. And **third**, to remove the monopolistic tendencies in a country and to enhance economic efficiency in that sector where large amount of investment is required, government should come forward and invest in that particular area which will again increase public expenditure. He first observed it for his own country and then the other countries. Wagner's hypothesis is a contrast to Keynesian hypothesis.

The paper set out as follows. Section 1 discusses introduction and review of national and international literature pertaining to the study. Section 2 briefly outlines the methodological frame work to check the stationary, co-integration, rate of error correction and direction of relationship among the variables. Section 3 presents the results of ADF and PP, Co-integration, Vector Error Correction Models and Granger Causality tests. Section 4 contains concluding remarks.

## 1.2 PREVIOUS EMPIRICAL STUDIES

Wagner's hypothesis has examined by many economists and a number of empirical investigations of its validity in both developed and developing economies have yielded mixed results. **Ray and Ray** (2012), **Verma and Arora** (2010), **Sahoo** (2001) found that economic growth and Public expenditure were mutually causing each other and there is long run relationship is found among these variables. But **Chandra** (2004) found that the government did not act as an engine of growth either in the short or in long run in India during 1950-96. On the other hand **Singh and Sahni** (1984) investigated that the growth in Public expenditure causes and effects the growth in national income. On the basis of empirical evidence they found that in Indian economy context both the hypotheses (Wagnerian and Keynesian) were mutually work and they cause each other. **Kesavarajah** (2012) showed that in Bangladesh total expenditure was slightly increased while in Sri Lanka, India and Pakistan it had slightly declined. In Sri Lankan economy percentage of public expenditure in AGRI sector has declined while as in defense EDU, HEL and TRC it has increased over the years. Co integration and ECM test results showed that the existence of short run as well as long run relationship between GDP and Public expenditure. According to Granger casualty test results confirmed that Wagner's law does not exist in case of Sri Lanka. **Magazzino** (2012) examined six versions of Wagner's law in EU-27 for the post-war period 1970-2009. According to Granger Causality test results that Wagner's law applicable in case of Belgium and Ireland while it followed the opposite direction in Denmark, Finland, France and Ireland. **Ghorbani and Zarea** (2009) found that Wagner's law is accepted in Iran's economy during 1960-2000. **Bagdigen and Cetintas** (2008) explored that there was no co-integration between GDP and Public expenditure which means that there was no long run relationship between Public expenditure and GDP for the Turkish case. In case of Pakistan there are different views of researchers that **Rehmanet. al.** (2007) found that the long run relationship between government expenditure and determinants of growth like per capita income in Pakistan. **Afzal and Abbas** (2010) explored that Wagner's Hypotheses in Pakistan economy. But on the other hand **Rauf, Qayum and Zaman** (2012) examined that neither Wagner's hypotheses nor Keynesian hypotheses did not hold in case of Pakistan during the period 1979 to 2009. **Husain** (2011) According to findings of this study Sri Lanka spent more on education and health sectors as compared to Pakistan and India but both countries (India, Pakistan) spent a huge amount on defense sector (non-economic sector).

Public expenditure incurred by public authorities like central, state and local governments to satisfy the collective social wants of the people is known as public expenditure. In any country the public expenditure is required to promote rapid economic development, trade and commerce, agricultural and industrial sectors, rural development, balanced regional growth, full-employment and maintain price stability, mineral resources like coal and oil, socio-economic

<sup>3</sup>Kesavarajah, M., (2012), Wagner's Law in Sri Lanka: An Econometric Analysis, ISRN Economics, Article ID 573826

overheads eg. Roadways, railways, power etc. and to ensure an equitable distribution of the resources. A striking feature of public expenditure in India is its continuous increase since independence. After independence, India took the responsibility of establishing a welfare state based on a planned economic development. The main objective is to promote the economic and social well-being of the people which enforced the government to come forward and spend for enhancing economic and social welfare. Thus, a continuous upward trend has been observed in public expenditure of the Indian government. After introduction of Liberalization, Privatization and Globalization (LPG) in India GDP has increased continuously. Private hands try to collect only their welfare but not the welfare of the society. Therefore, the government has taken responsibility of society's welfare and for this purpose Central and State governments are spending into mainly two forms like Revenue Expenditure and Capital Expenditure.

## 2. DATABASE AND METHODOLOGY

The present study is based on secondary data that covers the period from 1970-71 to 2011-12. Time series annually data for 42 observations has been utilized in this study. The study covers selected independent variables GDP, the indicator of income denoted by LY, Per capita income (LYP) and dependent variables Government expenditure (LGE), Real expenditure (LRE), real per capita expenditure (LREP), nominal per capita expenditure (LNEY), Government final consumption expenditure (LGCE). The data has been collected from Hand book of Statistic on Indian Economy 2011-12 and annual report of (2000-01) published by Reserve Bank of India (RBI). Similarly, to neutralize the impact of increase or decrease in prices, all the variables have been deflated at 2004-05 prices by using appropriate deflators.

TABLE 1: REGRESSION FORM OF SIX VERSIONS OF WAGNER'S LAW

S. No.	Versions	Regression Equation
1	Peacock-Wiseman (1961)	$LNGE = a + bLNGDP + u$
2	Gupta (1967)	$LN (GE/P) = a + bLN (GDP/P) + u$
3	Goff man (1968)	$LNGE = a + bLN (GDP/P) + u$
4	Pryor (1969)	$LN GCE = a + bLNGDP + u$
5	Musgrave (1969)	$LN (NGE/NGDP) = a + bLN (GDP/P) + u$
6	Mann (1980)	$LN (NGE/NGDP) = a + bLNGDP + u$

Source: Verma, S. and R. Arora (2010), Does the Indian economy Support Wagner's Law? An Econometric Analysis, Eurasian Journal of Business and Economics, 3 (5), pp. 77-91

For eliminating the base difference, the natural logarithms of the entire variable have been utilized. Before using the data firstly need to consider the impact of Structural shift in Indian economy on growth elasticity of public expenditure following dummy variables<sup>4</sup> have been introduced:

### INTERCEPT DUMMIES

$$D_1 = \begin{cases} 1: & \text{if } 1970 \leq t \leq 1990 \\ 0: & \text{otherwise} \end{cases} \quad \text{And} \quad D_2 = \begin{cases} 1: & \text{if } t > 1991 \\ 0: & \text{otherwise} \end{cases}$$

Slope dummies:  $Z_1 = D_1 \times X_t$  and  $Z_2 = D_2 \times X_t$

Where the dummy  $D_1$  represents the first phase of economic liberalization from (1970-71 to 1990-91), and  $D_2$  represents the second phase of economic liberalization phase from (1990-91 onwards), both are shown the structural shift in Indian economy.

To test the validity of Wagner's hypothesis in Indian economy, Johanson co-integration, Vector error correction model, Granger Causality test have been utilized to test the relationship between economic growth and public expenditure. The estimation procedure involves three steps. The first step is to test for stationarity of the time series data with the help of unit root (ADF) and PP tests. The presence of unit root makes the regression test results more spurious<sup>5</sup> and these results disturb the accuracy of the estimated parameters. Both Augmented Dickey Fuller (ADF) and Phillips Perron (PP) tests are applied to the Level form and First Difference in logarithms term of the series form two models: Intercept and Trend and Intercept.

## 3. EMPIRICAL RESULTS

### UNIT ROOT TEST

The first step of Johanson Co-integration approach is to test the presence of unit root in time series variables. For this purpose Augmented Dickey Fuller (ADF) and Phillips Perron (PP) tests have been utilized. The results of unit root test (ADF and PP) tests are exhibited in table 4.1. The ADF and PP tests are performed for the two models; intercept as well as trend and intercept. Both models are performed on the level as well as first difference of the series.

<sup>4</sup>Verma, S. and R. Arora (2010), Does the Indian economy Support Wagner's Law? An Econometric Analysis, Eurasian Journal of Business and Economics, 3 (5), pp. 77-91.

<sup>5</sup>A problem of spurious regression can occur when two time series variables in a regression are highly correlated whereas there is no actual relationship between them. High correlation is due to the existence of time trends in both time series variables (Granger and Newbold, 1974).

TABLE 2

Unit Root Test on Variables					
Variables	Model	ADF Test Statistic		PP Test Statistic	
		Level	First Difference	Level	First Difference
LY	Intercept	3.6288*	-5.9202*	4.7799	-5.9670*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-1.3404	-8.0356*	-1.2679	-9.5266*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LE	Intercept	-1.1061	-6.6453*	-1.4959	-6.6877*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-1.9285	-6.6390*	-1.8825	-6.7094*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LRE	Intercept	0.2215	-6.4856*	0.595	-6.5217*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-2.4582	-6.5259*	-2.5727	-6.5810*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LREP	Intercept	0.3342	-6.6409*	0.8441	-6.6577*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-2.1776	-6.7717*	-2.2454	-6.8465*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LGFCE	Intercept	-3.3698	-7.0467*	-3.3271	-14.6487*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-3.330243	-6.957378*	-3.236324	-14.34461*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LRGFCE	Intercept	-1.330596	-7.277697*	-1.046543	-13.07536*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-3.254529	-7.205677*	-3.246688	-14.23947*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LYP	Intercept	4.274679*	-5.287147*	5.323949	-5.367194*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-0.957948	-7.854949*	-0.957948	-9.2049*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LNEY	Intercept	-2.929392	-6.061557*	-2.94964	-6.27485*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-2.560413	-4.715949*	-2.476065	-6.566164*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)
LEP	Intercept	-0.643789	-6.683824*	-0.860661	-6.776689*
		(-3.6009)	(-3.6056)	(-3.6009)	(-3.6056)
	Trend & Intercept	-2.178472	-6.607156*	-2.152848	-6.714455*
		(-4.1985)	(-4.2050)	(-4.1985)	(-4.2050)

Note: \* indicates significant at 1 percent level. Brackets ( ) contain critical values.

The result of the unit root and PP indicates that all the variables are non-stationary in level form for the intercept model except LY (log of GDP) and LYP (log of per capita income) at one percent level of significance but all the variables are non-stationary in level form for the trend and intercept model. Whereas, all the variables are stationary in first difference for both Intercept and Trend & Intercept models. So now, co-integration model can be applied on the given data series.

**CO-INTEGRATION TEST**

The stationary behavior of the series fulfils the criteria of estimating the co-integration model. In the co-integration, study utilized the Johansen co-integration methodology. This technique is more robust in the case of more than two variables. To test the existence of co-integrating Vectors for the six versions of Wagner's law (Peacock & Wiseman, Gupta, Goffman, Pryor, Musgrave and Mann), Johansen Test and max Statistics have been used. In general, there can be up to two Co-integrating vectors for all versions. The test results have been presented in below given table.

TABLE 3: JOHANSEN CO-INTEGRATION TEST

Sr. no.	Variables	Null Hypothesis	Alternative Hypothesis	Eigenvalue	Max-Eigen	Trace Statistic	Critical Value (0.5%)	Prob.
1	LRE,LY & DV (Peacock & Wiseman)	r=0	r>0	0.5144	28.8970	50.0831	42.9153	0.0082
		r≤1	r>1	0.3440	16.8609	21.1861	25.8721	0.1717
		r≤2	r>2	0.1025	4.3252	4.3252	12.5180	0.6947
2	LREP,LYP & DV (Gupta)	r=0	r>0	0.5257	29.8364	51.7136	42.9153	0.0053
		r≤1	r>1	0.3504	17.2548	21.8773	25.8721	0.1451
		r≤2	r>2	0.1091	4.6225	4.6225	12.5180	0.6511
3	LRE, LYP & DV (Goff man)	r=0	r>0	0.5350	30.6278	53.2603	42.9153	0.0034
		r≤1	r>1	0.3605	17.8811	22.6325	25.8721	0.1201
		r≤2	r>2	0.1120	4.7514	4.7514	12.5180	0.6324
4	LRGFCE, LY & DV (Pryor)	r=0	r>0	0.4071	20.9124	36.8022	42.9153	0.1785
		r≤1	r>1	0.2606	12.0792	15.8898	25.8721	0.5014
		r≤2	r>2	0.0909	3.8107	3.8107	12.5180	0.7693
5	LNEY, LYP & DV (Musgrave)	r=0	r>0	0.5342	30.5634	51.0749	42.9153	0.0063
		r≤1	r>1	0.3293	15.9757	20.5115	25.8721	0.2011
		r≤2	r>2	0.1072	4.5358	4.5358	12.5180	0.6638
6	LNEY, LY & DV (Mann)	r=0	r>0	0.5158	29.0072	47.9577	42.9153	0.0145
		r≤1	r>1	0.3064	14.6318	18.9505	25.8721	0.2837
		r≤2	r>2	0.1023	4.3187	4.3187	12.5180	0.6957

\* indicates Co integration equation at 5% level of significance.

The Johansen Co-integration Test results show that Peacock & Wiseman, Gupta, Goffman, Musgrave and Mann versions trace statistic have been rejected at null hypothesis but accept at degree one. So all these five versions have been one co-integrating relationship among economic growth and public expenditure except Pryor version in India. In Pryor version null hypothesis is accepted at zero co-integrating relationship. So VECM model can not apply on Pryor version.

TABLE 4: LONG-RUN OF VECTOR ERROR CORRECTION MODEL

Long run						
S. N.	Versions	dependent Variable	Independent Variables	Coefficients	S. Error	Z- Values
1	Peacock- Wiseman	LRE	LRY	0.3689*	-0.1630	2.2626
			DV	-0.1889	-0.0207	-9.1419
			Trend	0.0540	-0.0038	14.1511
			Constant	5.8576		
2	Gupta	LREP	LYP	0.2770*	-0.0944	2.9349
			DV	-0.2617	-0.0348	-7.5159
			Trend	0.0422	-0.0036	11.6111
			Constant	5.1707		
3	Goffman	LRE	LYP	-0.1229	-0.0946	-1.2990
			DV	0.2459	-0.0350	-7.0184
			Trend	0.0669	0.0037	18.2982
			Constant	5.9533		
4	R.A.Musgrave and P. B. Musgrave	LNEY	LYP	-0.6359*	-0.1025	-6.2031
			DV	-0.2611	-0.0374	-6.9739
			Trend	0.0403	-0.0039	10.2909
			Constant	4.2723		
5	Mann	LNEY	LY	-0.8052*	-0.1090	-7.3889
			DV	-0.2413	-0.0340	-7.0969
			Trend	0.0600	-0.0061	9.8828
			Constant	5.3490		

Note: \* Stands for significant for 5% level

After find out the relationship among the variables, now there is need to which type of relationship (short run as well as long run) will exit among both variables. Results of long- run VECM model explores that Peacock & Wiseman, Gupta, Musgrave and Mann versions are statistical significant at five percent critical value except Goffman version. Standard Error shows the speed of adjustment on equilibrium restore in a year among the variables.

**SHORT RUN OF VECTOR ERROR CORRECTION MODEL**

The behavior of the short run relationship between expenditure and economic growth for all the five versions of Wagner’s hypothesis has been shown in Table. The co-integration equation1 has been checked out at five percent level of significance.

TABLE 5

Short run						
S. No.	Versions	Variables		Coefficients	S. Error	Z- Values
1	Peacock and Wiseman	Co-integrating Equ.	D(LRE)	-1.1478*	0.4966	-2.3115
			D(LRY)	0.1979	0.1386	1.4276
		D(LRE(-1))	-0.2604*	0.1056	-2.4650	
		D(LRY(-1))	0.7645	0.9295	0.8225	
		DV(LRE)	0.1121	0.1124	0.9974	
		DV(LRY)	-0.0514	0.0314	-1.6374	
		C(LRE)	-0.1021	0.1163	-0.8775	
		C(LRY)	0.0651*	0.0325	2.0033	
		2	Gupta	Co-integrating Equ.	D(LREP)	-0.8811*
D(LYP)	-0.3008*				0.1030	-2.9204
D(LREP(-1))	-0.0156			0.0921	-0.1698	
D(LYP(-1))	-0.8511*			0.3366	-2.5286	
DV(LREP)	0.0623			0.0552	1.1284	
DV(LYP)	0.0308			0.0312	0.9887	
C(LREP)	0.0691*			0.0152	4.5338	
C(LYP)	0.0394*			0.0086	4.5781	
3	Goffman			Co-integrating Equ.	D(LRE)	-0.7945*
		D(LYP)	-0.3280*		-0.0975	-3.3656
		D(LRE(-1))	-0.0244	-0.0893	-0.2737	
		D(LYP(-1))	-0.9057*	-0.3331	-2.7193	
		DV(LRE)	0.1058	-0.0619	1.7100	
		DV(LYP)	0.0326	-0.0335	0.9737	
		C(LRE)	0.0843*	-0.0163	5.1689	
		C(LYP)	0.0386*	-0.0088	4.3746	
		4	R.A. and P. B. Musgrave	Co-integrating Equ.	D(LNEY)	-0.4324*
D(LYP)	-0.3276*				0.0944	-3.4713
D(LNEY(-1))	0.0027			0.0891	0.0305	
D(LYP(-1))	-0.5151			0.3274	-1.5732	
DV(LNEY)	0.0612			0.0684	0.8951	
DV(LYP)	0.0327			0.0332	0.9868	
C(LNEY)	0.0300			0.0182	1.6438	
C(LYP)	0.0457*			0.0088	5.1655	
5	Mann			Co-integrating Equ.	D(LNEY)	-0.5396*
		D(LY)	-0.3267*		0.0979	-3.3361
		D(LNEY(-1))	-0.0067	0.0888	-0.0751	
		D(LY(-1))	-0.4158	0.3136	-1.3257	
		DV(LNEY)	0.0824	0.0679	1.2127	
		DV(LY)	0.0211	0.0325	0.6478	
		C(LNEY)	0.0379	0.0259	1.4646	
		C(LY)	0.0668*	0.0124	5.3888	

Note: \* Stands for significant for 5% level

The estimates of the table show that in the case of Peacock-Wiseman version, Z value is -2.3 this is more than tabulated value at five percent level (1.96), it rejects the null hypothesis. So it is statically significant at five percent critical value the coefficient of past error term is negative value is -1.15 and error correction term is 0.49, this result as per the validity of Co-integration model means it is supporting that past error term should bear negative coefficient value. Similar type results are found for all the remaining four versions where the coefficient value is statically significant with negative sign. These results indicate that any type of disequilibrium in the past is corrected very fast for long run equilibrium. The results of this table show the sign of applicability of five versions of Wagner's law in the short run

#### GRANGER CAUSALITY TEST

There is need to know about that whether there is unidirectional and bi-directional relationship among economic growth and public expenditure in India. For this purpose Granger- Causality test has been applied.

TABLE 6: PAIR WISE GRANGER CAUSALITY TESTS

Null Hypothesis:	Obs.	F-Statistic	Probability
LY does not Granger Cause LRE	41	5.3863	0.02576
LRE does not Granger Cause LY		0.01287	0.91029
LY does not Granger Cause LREP	41	8.11678	0.00704
LREP does not Granger Cause LY		0.45418	0.50444
LYP does not Granger Cause LREP	41	5.56738	0.02354
LREP does not Granger Cause LYP		0.27586	0.60248
LY does not Granger Cause LGRFCE	41	6.93919	0.01213
LGRFCE does not Granger Cause LY		0.02795	0.86811
LYP does not Granger Cause LGRFCE	41	4.9724	0.03174
LGRFCE does not Granger Cause LYP		0.24126	0.62613

After having a look on statistics the results of the table it is clear that the null hypothesis which is 'LY does not Granger Cause LRE' is significantly rejected i. e. LY significantly Granger causes LRE at 2.6 percent level while second row of the table reports that the null hypothesis 'LRE does not Granger Cause LY' is insignificantly accepted. Taking together both rows of the table the results reveal that in the case of Wiseman-Peacock version, there is uni-directional relationship between LRE and LY. All the results of the table show that some variables are Granger cause to other variables like, LY Granger Cause LREP, LYP Granger Cause LREP and, LY Granger Cause LRGFCE, LYP Granger Cause LRGFCE. So there is uni-directional relationship among the variables. As the growth variables are causing the expenditure's variable which is the theory of Wagner's law. Therefore, results of causing indicating the applicability of Wagner's Law in India.

#### 4. CONCLUSION

The main focus of this study is to check out the relationship between Economic growth and Public expenditure in India that was the law given by Wagner. This study checks out the applicability of six versions of Wagner's law in India during 1970-71 to 2011-12 by different econometric techniques. For this purpose some variables of growth and public expenditure are selected on the bases of six versions of Wagner's Law. For analysis, the data unit root test is used like Augmented Dickey Fuller (ADF) and Phillips Perron (PP) test to check the stationarity of the data. In ADF and PP test all the variables become non-stationary at level of intercept except LY and LYP which becomes stationary at intercept. Then in trend and intercept all the variables become non-stationary at level form. Finally, all the data for variables become stationary at first difference on intercept and trend and intercept in both the models. As per the results of co-integration model five versions like Peacock-Wiseman, Gupta, Goff man, Musgrave, and Mann show that the null hypothesis is rejected and is significant at five percent level, but it shows only one level of co-integration between the variables. But the result of Pryor is the opposite of the five versions of Wagner's Law. Granger Cause results show that there is uni-directional relationship among the variables. As the growth variables are causing the expenditure's variable which is the theory of Wagner's law. Therefore, results of causing indicating the applicability of Wagner's Law in India. However the findings of this study gave a deeper understanding about the relationship between Economic growth and Public expenditure. In future, the researchers can check sector wise performance of Economic growth and Public expenditure in India and other countries.

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**A STUDY ON MONOPOLY PROCUREMENT SYSTEM OF PADDY IN TIRUVARUR DISTRICT, TAMIL NADU**

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**ABSTRACT**

Indian economy is primarily an agricultural economy. The very existence of economic activities of the entire people is bound up with the state and health of this sector. In India, about 70 per cent of the people are engaged in agricultural pursuits and about 50 per cent of the national income originates from agriculture. Hence the level of efficiency and productivity in agriculture more or less determines the efficiency of Indian economy. Thus, the twin objectives of the Government that ensuring MSP to the farmers and also ensuring availability of food grains to the weaker sections at affordable prices were defeated due to the existence of middlemen, malpractices etc., even now in the procurement system of the Government. The area of study is restricted to Tiruvarur District only. Further studies may be conducted on the same line in other Cauvery delta districts like Trichy, Thanjavur and Nagapattinam or even in other districts of Tamil Nadu or India where agriculture is primary occupation of the people.

**KEYWORDS**

Monopoly procurement, paddy.

**INTRODUCTION**

As Adam Smith, the Father of Economics, argued in his book "Wealth of Nations," almost two centuries ago that agricultural output in its widest sense is the basic working capital of a nation in its initial stages of growth. A country in its early stages of economic growth, therefore, cannot simply ignore the progress in agricultural sector.

The development of agriculture therefore can help in the development of our economy from the stagnant to the progressive stage in three ways:

1. by supplying the physical resources needed by other sectors of economy in the shape of food and raw materials;
2. by increasing the gross national product; and
3. by providing economic surplus which constitutes the material basis for economic development.

Thus, the first and foremost contribution of agriculture to the economic development of a country is the supply of food. In India, since agriculture is the contributor of the largest amount of goods and services to the development of the country, it becomes essential and responsible on the part of the Government to regulate and control the marketing system of Agricultural produce. In spite of the Government's concern over the sound marketing system of all agricultural produce, the concern is to be excessive on the marketing system of food grains as it is the basic need of human being.

**STATEMENT OF THE PROBLEM**

Thus, the twin objectives of the Government that ensuring MSP to the farmers and also ensuring availability of food grains to the weaker sections at affordable prices were defeated due to the existence of middlemen, malpractices etc., even now in the procurement system of the Government. Hence, a study has been proposed to explore the activities of the Government in paddy procurement and to assess the problems of paddy producers in that connection.

**OBJECTIVES OF THE STUDY**

The objectives of the study are

1. To analyse the historical developments of food grains procurement system in India.
2. To understand the administrative pattern and physical performance of the TNCSCLtd., the Paddy Procurement Agency of the State.
3. To observe the opinion of paddy producers in marketing their paddy under Monopoly Procurement System in Tiruvarur District.
4. To identify the problems of the Paddy Procurement Agency, TNCSCLtd. in Tiruvarur District.
5. To evaluate the operational results of TNCSCLtd. on paddy procurement system in Tiruvarur District.

**AREA OF THE STUDY**

The area of the study has been limited to the district of Tiruvarur only. The main stay of the people in the district is agriculture. Paddy and sugarcane are the staple crops. The Cauvery is the major source of irrigation apart from a few bore wells and tube wells. There is not much industrial activity as it is predominantly an agricultural district. In Tiruvarur district, even farming is still a subsistence attempt and not a commercial venture. Cash crops are not grown, as the soil is clay, fit only for raising food crops. 1.57 lakhs Families live on farming in the district. The procurement of paddy in the district takes place through about 397 Direct Purchase Centers.

**METHODOLOGY**

The study is descriptive in nature. Survey method was adopted to carry out the objectives of the study. Both primary and secondary data were used in the study

**DATA COLLECTION:** Secondary data were collected from a wide spectrum of sources such as related books, relevant magazines, published and unpublished sources and Government reports. Websites of various organisations were also of great use in the collection of secondary data.

**DATA COLLECTION TOOLS:** Two different pre-tested interview schedules were administered in this study- one to elicit information from the sample farmers and the other to solicit information from the Bill clerks of the DPCs.

**POPULATION OF THE STUDY:** The population of the study constitutes the total number of farmers in the district and the total number of representatives of the procurement agency namely the Bill clerks working in DPCs engaged in the procurement of paddy in the study area.

**SAMPLES FROM FARMERS:** From the list of PACBs, 20 were selected at random. Registers of Members of the PACBs were used as the source for selecting members. With the help of the list of members, non-members were identified and selected. Of these 20 PACBs, 4 from each taluk were selected on a random basis. There are four categories of farmers namely Big, Medium, Small and Marginal farmers in the study area. Therefore, a total of 320 farmers, 4 farmers of each category from each PACB were selected on random basis. Among the farmers, nearly 20 per cent are non-members of the PACBs. Therefore, to include them also, 80 farmers, 16 farmers from each Taluk (4 each of the 4 categories) were also selected at random. Thus the total number of Sample farmers of the study was 400 - 320 from PACB members and 80 from PACB non-members.

**SAMPLES FROM MARKETING AGENCIES:** In Tiruvarur District, there are 397 DPCs to procure paddy from the farmers. In each DPC, there is one Bill Clerk who is responsible for the entire functioning of the procurement centre. For the purposes of the survey 80 DPCs functioning in the study area were selected on random basis. Among the 80, due attention was paid to include at least 16 from each Taluk.

**HYPOTHESES USED IN THE STUDY:** Several hypotheses were framed in the study for evaluating the efficiency of the paddy procurement system in the study area. The hypotheses were tested with the help of suitable Statistical techniques like Chi-square test and F- test-ANOVA.

**FINDINGS OF THE STUDY**

**Educational Background of Paddy Producers:** As much as 90 per cent of the farmers are literates.

**Knowledge about Monopoly Procurement System:** 39 per cent of the farmers did not know anything about Monopoly Procurement System and MSP. Marginal farmers and small farmers were totally unaware of these facts. **Marketable Surplus:** The marketable surplus is higher (80 per cent and more) in the case of medium, small and Marginal farmers. The overall percentage of marketable surplus is 80.5 per cent.

**Waiting Time at DPC:** As much as 58 per cent of the farmers were able to sell only after a delay of 2 days or more.

**Price of Paddy:** All the farmers in the study area are selling their paddy not for MSP but only after unofficial deductions. To bribe the higher officials and to meet out the local expenses unofficial cuts are done by the bill clerks in the DPCs.

**Deduction for Moisture Cut:** The amount deducted from the Minimum Support Price for moisture content level by the DPCs is abnormal for 79 per cent of farmers.

**Delay in Payment:** 36 per cent farmers wait atleast two days to get the price (money) for their paddy sold to the DPCs. The delay in the payment of price in DPCs is evident in all the DPCs during harvest seasons.

**Spillage per Quintal:** The quantity of spillage taken from the farmers is around 2 kg for 50 per cent of the farmers and it is 3 kg. or for the remaining 50 per cent of them.

**Storage Facilities:** 76 per cent of the farmers were of the opinion that there were no adequate storage facilities at the DPCs.

**Behaviour of the Bill Clerks:** 66 per cent of the farmers were satisfied with the behavior of the bill clerks in the DPCs.

**Behaviour of the Loadmen:** 55 per cent of farmers were dissatisfied with the behavior of the load men in the DPCs.

**Procurement Agencies – Preference of the Farmers:** 82 per cent of the paddy producers prefer TNCS Ltd for selling their paddy despite difficulties and irregularities.

**Reasons for Preferring Private Agency:** The paddy producers prefer private dealers because they give advance to them at times of need, make spot procurement and provide gunny bags to their need.

**Mobile Procurement System:** 81 per cent of the total medium and big farmers were not satisfied with the functioning of MDPCs in the study area. The mobile purchase system is not effectively operated in the district.

**Issue of Gunny Bags in Advance:** 86 per cent of respondents were of the opinion that the TNCS Ltd. should issue gunny bags to them for bringing their paddy to the purchase centre.

**Constitution of Grievance Cell:** 91 per cent express their positive opinion for constituting Extra Grievance Cell and only 9 per cent feel that there is no need for it. Constitution of extra grievance cell is urgently needed as the present vigilance system is not a substitute for it.

**Problems of the Farmers:** The malpractices including price cut is the first and foremost major problem of all the paddy producers irrespective of their size of land holdings in the study area. For marginal and small farmers, existence of middlemen, lack of information about the functioning of the system, undue waiting time at the DPCs for selling their paddy, storage, transport to bring their paddy to the DPCs from the harvest place, delay in payment of price and unfair treatment of the bill clerks and load men were the problems accounted for and ranked accordingly by them.

**Payment of Price Through Bank:** As much as 63 per cent of the total farmers have given consent to the system of payment through bank.

**Integration of Co-operative Credit with Marketing:** integration of co-operative credit with marketing is acceptable to 56 per cent of the total farmers. **To revamp Cooperative Sector:** It also recommends that the co-operative sector should be revamped and streamlined by making it the sole agency of supplying agricultural inputs and marketing the output instead of insisting cooperatives to supply inputs and entrusting the procurement activities to TNCS Ltd., This will help the cooperatives to recover their credit easily from the farmers from their sale proceeds. Otherwise both co-operatives and TNCS Ltd., may joined together to carry out these activities.

**Expectation of the Farmers:** All the 400 respondents expect increase in the MSP in conformity with increase in the cost of inputs. All the farmers with huge cry expect that the paddy pricing should be made cost effective.

**Government Policy on Paddy Procurement:** All the 400 farmers were not satisfied with the existing policy of the Government regarding procurement of paddy.

**FINDINGS AS REGARDS TO PROBLEMS IN DPCS**

**Age wise Classification of Bill Clerks:** As much as 40 per cent of the bill clerks were in the age group of 40 –50 and another 20 per cent were in the age group of 50 and above.

**Educational Qualification of Bill Clerks:** All the bill clerks were highly educated people. Degree in science is the minimum educational qualification required for the post.

**Experience of Bill Clerks:** 85 per cent of the bill clerks in the DPCs were well experienced people in their field as their average experience is 11.5 years.

**Nature of Post:** All the bill clerks were appointed on temporary basis and they were paid only Rs.3300/- as monthly salary. The work is seasonal in nature and for six months only. All the sample bill clerks were not satisfied with their salary as it was not in accordance with their qualification and experience.

**Work Environment:** All the respondents were of the opinion that the work environment is not conducive. The safety, health and welfare measures provided to them were poor.

**Attitudes of the Higher Officials:** 90 per cent of the respondents were satisfied with the attitudes of their higher officials.

**Payment of Minimum Support Price (MSP) to Farmers:** All the BCs accepted the fact that they are not paying the MSP fixed by the Government to the farmers. Thus, the very objective of the monopoly procurement system of ensuring MSP to farmers is defeated.

**Reason for Not Paying Minimum Support Price to Farmers:** All the respondents were of the opinion that they deduct money from MSP to pay their higher officials, to pay for local expenses like to give donations, to offer tea to visiting officials etc., and to pay maamool to lorry drivers. They were of the opinion that they were permitted by their higher officials to deduct money from MSP. Deduction for moisture is permitted one. Only 70 per cent of them deduct for moisture conditions of the paddy that too during rainy seasons only.

**Supply of Materials to DPCs:** Only 85 per cent of the BCs were adequately given with gunny bags. Inadequate supply of gunny bags hampers the continuous flow of procurement operations.

**Opinion about Job Satisfaction:** 65 per cent of the BCs were dissatisfied with their job. Problems like seasonal and temporary employment, poor salary, unlimited work time, recovery for weight loss are the reasons for job dissatisfaction.

**SUGGESTIONS**

**To Improve the Educational Back ground of the Farmers:** In spite of its growing importance, the attitude of the people towards agriculture remains backward. For many people in our country, industry stands for progress and agriculture for stagnation. They think that industry is a paragon of science and technology, while agriculture is the repository of primitive life. The sons of educated rarely choose agricultural occupations.

**To Improve the Knowledge of Farmers:** Wide publicity should be given among farmers about the functioning of monopoly procurement system.

**To save Cost and Time:** There are two options to save the farmers from waiting at DPCs and from incurring unnecessary transport and labour expenses. One is opening DPCs at each and every revenue village and the other is fine tuning the mobile direct purchase teams to be active, efficient and effective. This will avoid unnecessary transport cost, travelling and waiting time at the DPCs.

**To Extend Mobile Direct Procurement System:** Its performance should be improved further to function actively and the present number of units, which is two per Revenue Division may be increased. Its function should be extended to small and marginal farmers also, in a village where Direct Purchase Centres are not opened. On previous intimation to the farmers of the arrival of mobile DPCs to the village, paddy procurement can be considerably made, stationing at a centrally reachable place from all the small farmers and marginal farmers. This will be great boon to them as the transport charges are saved.

**To Increase the Price of Paddy:** The prices of farm products should be fixed on the basis of the **cost of living** which is mounting up day by day and not on **cost of production** only to fulfill the primary demand of the paddy produces.

**To Ensure Immediate Payment:** The farmers in the study area prefer DPCs not for better price but for ready cash payment. In practice, there is delay in payment of price. This can be avoided by issuing cheques in lieu of making payment in cash. It will also avoid malpractices and other unnecessary expenditures at the DPCs.

**To Ensure Correct Weight:** The higher authorities of the TNCSC Ltd. should pay surprise visit to the DPCs and check the accuracy of weighing and moisture cuts what they have made in the procured quantity just before their visit.

**To Control Spillage:** Steps to be taken by the TNCSC Ltd. to avoid the practice of taking more quantity for sample and the unnecessary spillage caused by load men in the procurement centres.

**To Extend Storage Facilities:** Establishing permanent Direct Purchase Centres with bucca buildings attached with a small godown, throughout the District to restrict storage problems at the DPCs.

**To Increase the Incentives:** The amount of incentives given to the farmers should atleast be equal to cover all incidental expenses like transport, labour etc. This will create a sense of loyalty in the minds of the farmers towards TNCSC Ltd. The incentive should be paid in cash only.

**To Issue Gunny Bags in Advance:** The TNCSC Ltd. should take steps to supply gunny bags to needy farmers, for enabling them to bring their produce to the Direct Purchase Centres.

**To Fulfill the Expectations of the Farmers:** The expectations of the farmers are reasonable, genuine and simple to be adhered to. They expect nothing new nor even modification in the existing system but exact implementation of the system intact. So, the Government should take immediate steps to fulfill the expectations of the farmers.

**To constitute Grievance cell:** In addition to the vigilance cell functioning in the TNCSC Ltd., Tiruvarur, an Extra Grievance Cell should be constituted exclusively to hear and redress the grievances of farmers connected with procurement. Steps should be taken by the TNCSC Ltd. to keep in the forefront of the DPC the complaint box enabling the farmers to lodge complaint if any, over the functioning of DPC.

**To set up Farmers committee: Farmers' Committee** may be set up by the Government comprising members from all categories of farmers to inspect the working of DPC and make complaints to the higher authorities for irregularities found if any.

**To Regulate the Work Time of the DPCs:** There is no scheduled work time for the DPCs. So, the TNCSC Ltd. should take steps to regulate the working hours of the DPCs and place it on the notice board of the DPCs.

**To improve the Work Environment:** The ensuring the minimum legal requirements of safety, health and welfare measures in the DPCs without fail. Drinking water, toilet facility, pollution control measures and lighting are the basic amenities required immediately in the DPCs.

**To change the Attitude of the Higher Officials:** Payment by cheque system be introduced which will restrict malpractices at the DPCs.

**To improve transportation:** The transportation schedule should be diversified in such a way to clear the stock in all the DPCs on daily basis.

**To avoid recovery for loss of weight:** To avoid recovery from the bill clerks for loss of weight of paddy under normal circumstance.

**To supply quality materials to DPCs:** To ensure good quality machines and materials particularly good quality gunny bags to the DPCs adequately.

**To regularize the services of the DPCs Staffs:** The services of the staff in the DPCs are very much required for the TNCSC Ltd. so, steps may be taken to regularize them immediately.

#### SCOPE FOR FURTHER STUDY

The area of study is restricted to Tiruvarur District only. Further studies may be conducted on the same line in other Cauvery delta districts like Trichy, Thanjavur and Nagapattinam or even in other districts of Tamil Nadu or India where agriculture is primary occupation of the people.

There is wide scope to conduct similar studies on each of the other agricultural produces like wheat, maize, oil seeds etc., at micro level. Since each input is unique in its character it is worth studying each input in detail.

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## A STUDY OF CSR IN INDIA

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**ABSTRACT**

*In this paper, we discuss about the corporate social responsibility conceptual evolution and the implication of the mandate in companies act 2013 on Indian companies context. This research commences by providing an insight about CSR from just being a charity and philanthropy perception to spearheading changes in welfare and uplifting society overall. On the other hand, assessing the pros and cons and the implications of this relatively new mandate of companies act which has increased the number of companies under the purview CSR clause and justifying the matter in concern.*

**JEL CODE**

M14

**KEYWORDS**

CSR, Companies Act 2013, evolution of CSR.

**INTRODUCTION**

Though the practice of CSR is not a new concept for India or the nations across the globe for that matter. But it has taken a paradigm shift by leaps and bounds. But gradually with the emergence of the big business empires and brands taking over the market in all fields and genres of an individual's life have become pertinent and imperative. This makes the business concerned about their own self image, reputation or goodwill. The way the stakeholders perceive the company. Being associated with a good quality lofty brand or a product as a stakeholder/customer/investor would defiantly give rise to a feeling of pride to be part of such business/organization. Society. Notable efforts have come from the Tata Group, Infosys, Bharti Enterprises, ITC Welcome group, Indian Oil Corporation among others.

In the first phase charity and philanthropy were the main drivers of CSR. (Chahoud, Dr. Tatjana, 2007)

In the second phase, during the independence movement, there was increased stress on Indian Industrialists to demonstrate their dedication towards the progress of the society. This was when Mahatma Gandhi introduced the notion of "trusteeship", according to which the industry leaders had to manage their wealth so as to benefit the common man. According to Gandhi, Indian companies were supposed to be the "temples of modern India". ("Understanding and Encouraging Corporate Responsibility in South Asia". 2001.)

The third phase of CSR (1960–80) had its relation to the element of "mixed economy", emergence of Public Sector Undertakings (PSUs) and laws relating labor and environmental standards. During this period the private sector was forced to take a backseat.

In the fourth phase (1980 until the present) Indian companies started abandoning their traditional engagement with CSR and integrated it into a sustainable business strategy. In the 1990s the first initiation towards globalization and economic liberalization were undertaken. Controls and licensing system were partly done away with which gave a boost to the economy the signs of which are very evident today. Increased growth momentum of the economy helped Indian companies grow rapidly and this made them more willing (Gajare, R.S. (2014).

A conceptual study of CSR development in India CSR is not a new concept in India. Ever since their inception, corporations like the Tata Group, the Aditya Birla Group, and Indian Oil Corporation, to name a few, have been involved in serving the community. Through donations and charity events, many other organizations have been doing their part for the society. The basic objective of CSR in these days is to maximize the company's overall impact on the society and stakeholders. CSR policies, practices and programs are being comprehensively integrated by an increasing number of companies throughout their business operations and processes. A growing number of companies feel that CSR is not just another form of indirect expense but is important for protecting the goodwill and reputation, defending attacks and increasing business competitiveness.

**LITERATURE REVIEW**

"A robust and thriving development sector is central to India's quest for equitable, inclusive and sustainable growth. India's development sector has evolved substantially over the last few decades and is now witnessing unprecedented interest and investments across the value chain"

(Rakesh Bharti Mittal Chairman, CII's Development Initiative Council and Vice Chairman and Managing Director, Bharti Enterprises.2014)

"Philanthropy and CSR is not a novel concept for Indian companies, however a few organizations are likely to struggle. The role of civil society in fuelling this change is bound to be extremely important. With the new corporate resources in their tool bag much will depend on their ability to innovate and adapt"

(Harpal Singh Mentor and Chairman Emeritus, Fortis Healthcare Limited, 2014)

"Like for all good things, corporate India had to wait a long time for a corporate reporting framework that is current, and with some work, can be considered visionary. Introduction of the comply or explain principle in the case of CSR rule is one such example."

(Vishesh C Chandiok, National Managing Partner Grant Thornton India LLP, 2014)

"They review contemporary CSR trends in India concluding that although the corporate sector in India benefited immensely from liberalization and privatization processes, its transition from philanthropic mindsets to CSR has been lagging behind its impressive financial growth".

(Bimal Arora and Ravi Puranik, 2004)

**OBJECTIVES**

- To study the conceptual evolution of CSR in Indian context.
- To analyze the Implications of companies Act 2013 section 135.
- To study the effect of Mandatory CSR provision on performance of Indian companies. To analyze the results for the companies not complying
- To understand the challenges faced by CSR in India currently.
- To study whether section 135 will lead to satisfaction of the shareholders and stakeholders.

**RESEARCH METHODOLOGY**

Looking into requirements of the objectives of the study the research design employed for the study is of descriptive type. Keeping in view of the set objectives, this research design was adopted to have greater accuracy and in depth analysis of the research study. Available secondary data was extensively used for the study. The investigator procures the required data through secondary survey method. Different news articles, Books and Web were used which were enumerated and recorded.

## BACKGROUND

There are more than 1,000,000 registered companies in India out of which less than 1 percent companies are traded on the Indian Stock Exchange. A new Trend has started in Corporate is the establishment of special committees within the board of directors to oversee CSR activities. Groups of corporate are being encouraged to come together to promote CSR.

CSR has come a long way in India. From responsive activities to sustainable initiatives, corporate have clearly exhibited their ability to make a significant difference in the society and improve the overall quality of life. In the current social situation in India, it is difficult for one single entity to bring about change, as the scale is enormous. Corporate have the expertise, strategic thinking, manpower and money to facilitate extensive social change. Effective partnerships between corporate, NGOs and the government will place India's social development on a faster track.

In an article on Trust and Corporate Social responsibility: Lessons from India, authors mentioned Spirituality and Corporate Social Responsibility have had a deep-rooted connection in India. A phenomenon that has preceded the coining of the term 'CSR', the link between the 'karma' as espoused by sacred Indian texts and initiatives anchoring corporate as responsible citizens has been amply evident in India since the early days. This is widely divergent from the perspective of corporate social responsibility in Western economies as reflected in the observation by Arthur Page, vice president of public relations at AT&T for around 20 years and former advisor to the US President: "... all business in a democratic country begins with public permission and exists by public approval ...."

Viewed from this perspective, public relations professionals are the custodians of trust for the corporate world. While the global spotlight today focuses on debates on corporate trust, India can proudly flaunt a head start in this arena. Yet, before we present India's case, let's briefly scan some recent happenings, particularly in the US, that led to an erosion of trust in Corporate Inc. worldwide.

Education is the most preferred area of CSR for Indian companies, with 85% of the companies surveyed engaged in it, followed by health (67.5 per cent) and rural development and livelihoods (57.5 %)

## IMPLICATIONS OF THE MANDATE UNDER SECTION 135 OF COMPANIES ACT 2013

Even though so much has been done and said about conceptual framework of CSR the question comes in mind what was the need for a mandate for complying, was it even required at all? So, what is the new mandate for CSR?

In August 2013, the Indian parliament passed the Indian Companies Act, 2013 (the "New Act"), which has replaced the Companies Act of 1956. The New Act has made far-reaching changes affecting company formation, administration and governance, and it has increased shareholder control over board decisions. The New Act is being implemented in stages

One of the New Act's most startling changes—which came into effect on April 1, 2014—has been to impose compulsory corporate social responsibility obligations ("CSR") upon Indian companies and foreign companies operating in India. These obligations mainly come in the form of mandatory amounts companies must contribute to remediating social problems. This is a wholly new requirement; although companies were permitted, within certain limits, to make charitable contributions in the past, the New Act is essentially a self-administered tax. The Indian Ministry of Corporate Affairs recently has published, or "notified," detailed rules implementing the CSR requirements.

The threshold coverage levels for CSR are low. Companies are subject to the CSR requirements if they have, for any financial year:

- a net worth of at least Rs. 5 billion (approximately U.S.\$80 million);
- a turnover of at least Rs. 10 billion (approximately U.S.\$160 million); or
- net profits of at least Rs. 50 million (approximately U.S. [\$800,000]).

Companies meeting these thresholds are required to develop a CSR policy, spend a minimum amount on CSR activities and report on these activities, or prepare to explain why they didn't. (Grant Thornton, 2014)

Though for the veteran companies fervently and vigorously engaged in CSR activities will definitely prove to be at competitive advantage as for them to further establish their roots harder in the ground of Indian domain. And, on the other hand for the startups, and other newly establishing business and organization the organizations which were earlier not under this bracket but due to the mandate will be enveloped under this mandate will have to filter their hindsight in a manner to make their mark, though it might add the pressure on such organization whose sole motive was customer satisfaction, research and development operation.

In a nutshell this CSR mandate would turn out to be an edge for veteran CSR expert organization over the rest which indeed would feel the pressure to cope up with the mandate.

Also, this might lead to compromising on their R&D cost or ultimately anticipated in increased prices of services and products.

This might lead to manipulation of funds by the organization to oblige to the extra amount to be invested as in the past also many companies were found to be having fake NGO'S only for namesake, to save money, evade taxation ,and so on.

Thus, the government has taken this step in good intention for the benefit of society but it should weigh the loopholes as well by clarifying the roles ,duties, penalties ,alternatives of the CSR for different sectors for more equality and justice for the companies as well.

## RECOMMENDATIONS

It is found that companies involved in CSR implement projects in the areas of health, education, environment, livelihood, disaster management and women empowerment, to mention a few. In many such contexts, it's noticed that companies end up duplicating each others' efforts on similar projects in the same geographical locations. This creates problems and induces a competitive spirit amongst companies. Considering the diverse issues and different contexts that exist currently in the CSR domain, it is recommended that companies involved in CSR activities urgently consider pooling their efforts into building a national alliance for corporate social responsibility. This alliance, representing various industry interests, should take up broad development agenda and provide high value services to the poor and the underprivileged. Over the years, the alliance would grow into a special purpose vehicle (SPV) and work closely with stakeholders to raise the level and quality of CSR interventions. There are already such models available in different industry segments both within the country and overseas; all that is needed is to identify and leverage these models to set up a national platform for effective thought alignment between companies and other stakeholders, in order to redefine CSR practices in India.

It is noted that the Government should consider rewarding and recognizing corporate houses and their partner non-governmental organizations implementing projects that effectively cover the poor and the underprivileged. Incentives to be offered to the private sector to strengthen their good work must include a formal partnership with local administration, easy grant of 12A, 80G and Foreign Contribution Regulation Act (FCRA) license and other fiscal incentives including matching project grants and tax breaks for social and development projects. This will be instrumental in encouraging enhanced voluntary participation of greater number of corporate houses in CSR activities.

It is found that corporate houses and non-governmental organizations should actively consider pooling their resources and building synergies to implement best CSR practices to scale up projects and innovate new ones to reach out to more beneficiaries. This will increase the impact of their initiatives on the lives of the common people. After all, both corporate houses and non-governmental organizations stand to serve the people through their respective projects and initiatives. It is recommended that the projection, scaling up and sustainability of CSR projects need to be safeguarded at all costs for their efficiency and efficacy.

## CONCLUSION

CSR has gone through many phases in India. The ability to make a significant difference in the society and improve the overall quality of life has clearly been proven by the corporations. Not one but all corporations should try and bring about a change in the current social situation in India in order to have an effective and lasting solution to the social woes. Partnerships between companies, NGOs and the government should be facilitated so that a combination of their skills

such as expertise, strategic thinking, manpower and money to initiate extensive social change will put the socio-economic development of India on a fast track (Sathish, Ramya).

The New Act's CSR requirements will increase the costs of doing business in India and add to existing administrative and reporting burdens.

Unfortunately, the sheer amounts of money that must now be spent on CSR in India have increased substantially the dangers of violating U.S. and U.K. law, and we expect that there will be close scrutiny of companies' CSR payments by United States and U.K. authorities. Because of these risks, foreign companies with operations in India should seek the advice of counsel in structuring the CSR programs and establishing internal controls.

This step does absolutely make India a strongest economy in terms of CSR history for rest of the nation.

But, the government should clarify certain procedure if certain companies fail to adhere to the mandate to whatsoever reason

Because the ultimate aim of the government via CSR initiative is improvement of society and not unnecessary pressure. Thus, the government shall weigh the balance of such mandate affecting different scale of companies and consider different sectors and natures of business.

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**SRI LANKA**

### **ABSTRACT**

The present study was conducted to assess the livelihood status of small-scale fishers in the Batticaloa district of Sri Lanka. Primary data were collected through the structured questionnaire from the selected fishing villages in the Batticaloa district. The study reveals that most of the small-scale fishers were belonged to the age group of 25- 40 and Average family size of fishing households was found to be 4.08. Majority of the fishers are male and they had educated up to primary level (1-5 grade). Around 61 % of fishers earn income less than 10,000 SLR per month and 81 % of the respondents reported that the income is not sufficient to meet their basic demands. The study shows that 91% of the sample households has own houses with sanitation facilities and 25 % of households reported that they have full set of equipments for fishing. The study also shows that the 9% of the respondent has no land to organize alternative livelihood activities and 87% of respondent households are active members in fishery co-operative union. Lack of understanding about well established patterns of livelihood and diversification in fishing communities were the important issues in the study area. A dynamic multi dimension livelihood project should be implemented for the betterments of the fishing households in the study area and trainings on diversified livelihood activities would be organized.

### **KEYWORDS**

Fishermen, fishing community, livelihoods status, socio-economic.

### **INTRODUCTION**

Small-scale fisheries play an important role in Sri Lankan economy and constitute an integral part of its agriculture sector. This sector provides food security and livelihoods to the rural poor households. Coastal areas in Sri Lanka are very rich in marine resources. It provides many opportunities to the peoples to organize their livelihood and contribute about 1.8% to country's GDP. Batticaloa district of eastern Sri Lanka also has potential fisheries resources. There are 172 fishing villages in the district and 24,720 active fishermen producing 21,850 metric tons of fish in the district. However, fisheries sector in the research area addresses issues on sustainable socio economic improvement of fishing families. Thennakoon (2004) noted that Regional imbalances in socio-economic development exist in Sri Lanka and these imbalances are caused by the availability of resources, level of government development intervention and the variation in physical environment. This situation is also applicable to fisheries sector in the eastern province of Sri Lanka.

As summarized by Kent (1997) small scale fishing is very important to sustainable development of developing countries in the world. According to the Chambers and Conway (1992) livelihood comprise the capabilities, the assets (such as natural, physical, human, financial and Social), the activities and the accesses to these that together determine the living gained by individual household. Fisheries sector in Sri Lanka contributes to livelihood directly as a source of food, income and poverty reduction. However, in some cases, small scale fisheries sector are often neglected in development initiatives. Education (literacy), health and income are very important aspects of socio-economic development of a community. Literacy is basic to the livelihoods. Education helps in gaining of required skill for a job. The education always looked upon as a means of socio-economic improvement of an individual in the society. The fishing communities in the developing countries often face educational disadvantages due to the geographical and social marginalization (FAO, 2006). Similarly, assessment of health status of a community is likewise very important factor to identify the livelihood situation. Household income is another most important factor of the socio-economic status of a community.

The main purpose on the present study is to investigate the livelihood status of small scale fisheries families by exploring the socio economic and fishing features of the research area. Moreover, the present study contributes to the literature as one of the innovative studies in this area and the information gathered through, which may be used to develop appropriate policies to encourage development of the important fisheries sector in the economy of the district. The study expects to generate useful information about the livelihood and socio economics status of small- scale fisheries households in the Batticaloa district. Peoples of the Batticaloa district frequently face natural disasters in the last few years. Because of that they experienced multiple displacements. Due to this situation, most of the small-scales fishing families in the district are in vulnerable level. Considering the situations the study was undertaken to explore the Socio-Economic characteristics of the small- scale fishing households and to examine the livelihood status of small scale fishing communities of Batticaloa District. This study would give feedback and required directions to develop appropriate technologies, planning suitable for the changed scenario. It also provides suitable policy implications for future rehabilitation in the area.

### **METHOD AND MATERIALS**

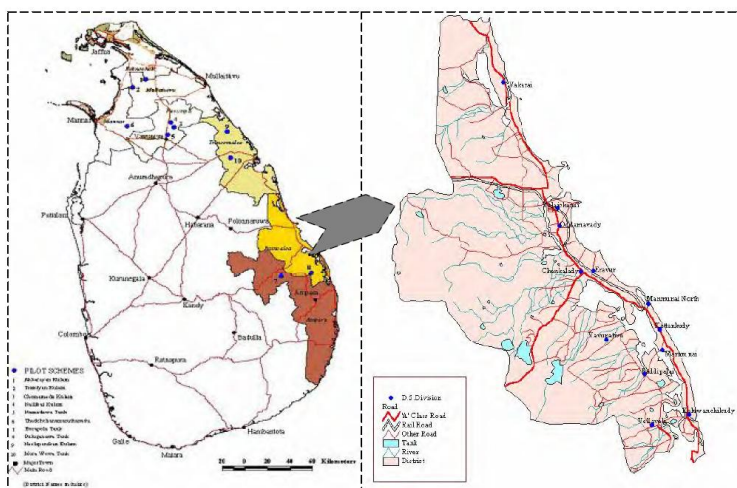
This study was carried out in the Batticaloa district of Sri Lanka. Batticaloa is one of the three districts in the Eastern Province of Sri Lanka, sharing a border with Trincomalee in the north, Pollunaruwa in the west, Ampara in the south, and Indian Ocean in the east. It consists of 14 Divisional Secretariat Divisions and, 348 Grama Niladhari Divisions. Present total population of the district is 596,317. Length of the coast line of the district is 118.8Km. The district consists of 172 fishing villages with 14,283 estimated populations of fishing families. 4682 small scale fishing families are engaged in fishing activities in the district.

### **DATA COLLECTION**

Both primary and secondary data were used in this study. 200 households will be randomly selected from selected fishing villages. The cross sectional data were collected through interview with a structured questionnaire. Focus group discussion and key informant interviews also applied to collect the primary information in the study. This study was conducted in selected fishing villages in the Batticalia district of Eastern Sri Lanka.



FIG. 1: MAP OF THE RESEARCH AREA



Source: District secretariat, Batticaloa, Sri Lanka

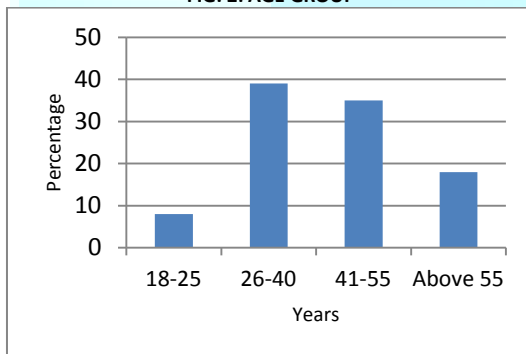
**RESULTS AND DISCUSSION**

In this study, the livelihood status of small-scale fisheries in the Batticaloa district of Sri Lanka was the main aspect emphasizing on Education, occupation and income, age, family size, housing condition, drinking water facilities, sanitation, and other socio economic issues. Results were presented in the following sections.

**HUMAN CAPITAL**

Human capital includes Skills, knowledge, age and good health that collectively enable people to pursue different livelihood strategies. Age and the Family size are important socio-economic indicator as it affects the income, food consumption and socio-economic wellbeing of the households (Hossain et.al, 2009). Age structure of fishermen is important in estimating productive human resources. The changing age patterns can strongly affect the growth of human resources. In the present study fishers were grouped into four age groups such as 18-25, 26-40, 41-55 and above 55 year. Among the total sample households in the district 8%, 39%, 35% and 18% belonged to 18-25 years, 26-40years, 41-55 years and above 55 years respectively. 18-25 and 26-40 years of age groups can be motivated to use their skills and knowledge to improve their livelihood activities. Fig 1 shows the age group of the sample fishermen in the research area. Average family size of fishing households was found to be 4.08. The study also reveals that 22% of the households have less than 3 members, 66% of the households have 3-5 members and 12% of households have more than 5 members. Sex composition is too significant in the livelihood study because both men and women are involved income earning activities at household level. Nevertheless, the present study indicates that the majority of fishers are male among the sample population. 96% respondents are male and only 4% are females those who involve in fishing activities. Females are not directly involved in fishing, but they are the boat owners and being the head of households.

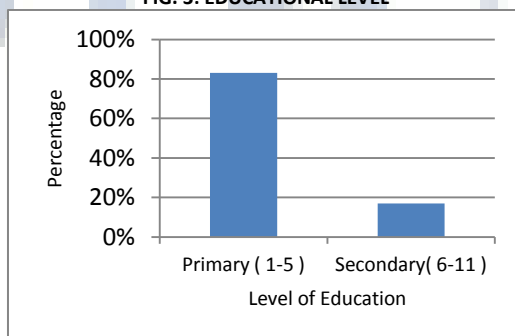
FIG. 2: AGE GROUP



Source: Field Survey, 2013

Education always considered as a means to one’s socio-economic position in the society. Formal literate helps to acquire the needed skills and knowledge for any income earning activity. Among the sample fishermen 83% had education up to primary level (1-5 grades) 17 % of them had education up to secondary level. The finding of the study shows (fig 2) that higher percentage of fishermen completed primary level of education. Simply, the literate level is substantial among the small scale fisheries in the district. Educational level of fishermen is one of the causes for their existence in small scale fishing activities.

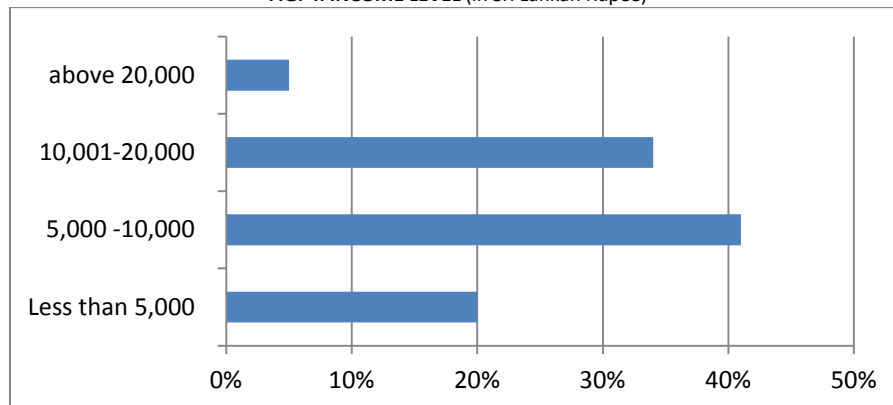
FIG. 3: EDUCATIONAL LEVEL



Source: Field Survey, 2013

**FINANCIAL CAPITAL**

Financial capital comprises available financial resources of the people or provided capitals for livelihoods. These are mainly credit, savings and other types of remittance. The present study reveals that most of the households received credit facilities from various organizations. Level of saving among the respondents is very low. The household income has been considered as an important indicator of socio economic status. Among the respondents, 20% of the fishing households earning less than 5000 Sri Lankan rupees per month while 41% of them earn 5,000- 10,000. The percentage of monthly income earning households between 10,001 -20,000 is 34. Only 5% of households earn more than 20,000 Sri Lankan rupees. Around 61% Small scale fishers earn less than 10,000 Sri Lankan rupees per month. 81 % of the respondents reported that the income is not sufficient to meet their basic demands. Moreover, the findings reveal that 58% of the respondents are earning income from alternative work during the off seasons. The fig. 3 indicates the percentage of income level of small-scale fishermen in the study area. The study illustrates that all fisheries households in the study area have equal opportunity to get credit facilities. However, usage of the facilities does not help to organize their livelihoods.

**FIG. 4: INCOME LEVEL (in Sri Lankan Rupee)**

Source: Field Survey, 2013

**PHYSICAL CAPITAL**

Physical capital contains basic infrastructure (e.g. secure shelter, adequate water supplies and sanitation, affordable transport and access to information) and producer goods (e.g. tools and equipment) needed to support livelihoods. The nature of the house indicates the social status of the people. The results of the study show that 91% of the sample households has own houses with sanitation facilities. These houses were provided under the various Tsunami housing projects. However, 9% of the households live with relative and in temporary huts. The sanitary facilities of peoples who live in huts were not satisfactory level. The study also reveals that the 55% of the houses have own protected well for drinking water. 32% of the households get water from common wells and common pipe lines. 25 % of households reported that they have full set of equipments for fishing. Others are working as daily labours.

**NATURAL CAPITAL**

Natural capital of fishermen consists of natural resource such as land, water, timber and environmental goods to support production. People of fishing communities depend on various types of natural resources for their livelihoods. Ownership of the land and land size are the important socio-economic indicators of fishing households. The present study shows that the 9% of the respondent has no land to organize alternative livelihood activities in the study area.

**SOCIAL CAPITAL**

Social network and relationship are exploring the social resources. Marital status, membership of social organizations and links are important in social capital. These kinds of relationship and links help the households to improve the livelihoods. The study shows that the marital status of households is 92%. This marital linkage may help households to choose alternative livelihood activities. Participation of households in social organizations is very high in the study area. 87% of respondent households are active members in fishery co-operative union. 13% respondents were absent in giving any information on social network.

**CONCLUSION**

The study has conducted to explore the livelihoods status of small-scale fisheries households in selected villages in the Batticalao district of Sri Lanka. The study area severely affected by internal war, Tsunami and recent flood. Many efforts have been taken by NGOs and Government to build the livelihoods for vulnerable fishing households in the study area. However, most of the fisheries households, particularly small scale fishing families, are in vulnerable situation. Lack of understanding about well established patterns of livelihood and diversification in fishing communities were the important issues in the study area. A dynamic multi dimension livelihood project should be implemented for the betterments of the fishing households in the study area and trainings on diversified livelihood activities would be organized.

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# CRITICAL SUCCESS FACTORS FOR INNOVATION: AN EMPIRICAL ANALYSIS ON TEA INDUSTRY IN SRI LANKA

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## ABSTRACT

The main purpose of this study is to determine the factors which significantly influence innovativeness of tea manufacturing and exporting firms in Sri Lanka. The research model is totally based on the knowledge obtained from literature and it consists with main three factors, corporate culture, working environment and networking. In order to test the model, primary data were collected through e-mail from the CEO/Owner of tea manufacturing and tea exporting firm using a structured questionnaire. Discriminant analysis and cross-tabulation analysis were performed to determine the significant difference between means of responses from more or less innovative companies. Findings of the study revealed that the drivers of innovation in tea manufacturing and exporting firms are corporate culture, working environment and networking. The main barriers for innovation of both more and less innovative companies are financial constraint and qualified human resources.

## KEYWORDS

Innovation, Tea Industry, Discriminant Analysis.

## 1. INTRODUCTION

### 1.1 TEA INDUSTRY

Among the export composition, tea, as the highest net foreign earning sector, provides significant contribution to the country's economy. It is the third largest agricultural industry and second largest exporter in Sri Lanka. Sri Lanka tea industry celebrates 146 years of commercial history in 2013. As the highest net foreign exchange generator, tea is considered to be the most important agri-business in the country. It also accounts nearly 10 percent contribution to national output, nearly 15 percent contribution on export earnings and generates more than 10 percent employment opportunities directly and indirectly (nearly 2 million employed) (SL Tea Board, 2014). Sri Lanka is one of the leading tea exporting country in the world. Since the global tea market is very competitive, the tea industry in Sri Lanka has not performed well in the global market, especially concerning about the global market share, compared to other tea exporting countries like; Kenya, China and India. During the last decade, the country's relative position in terms of export market share shows a considerable decline (Table: 1.1).

**TABLE 1.1: MARKET SHARE OF THE MAJOR TEA EXPORTING COUNTRIES**

Country	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sri Lanka	25.7	22.5	21.6	22.1	20.9	22.6	22.9	21.6	20.4	20.3	20.0	19.1
Kenya	5.6	16.1	13.7	15.6	15.8	15.5	16.9	16.4	18.2	18.5	18.9	19.7
China	13.1	12.3	12.9	13.3	13.1	13.4	12.4	12.9	12.3	14.4	16.5	17.2
India	12.8	10.5	11.3	10.6	9.9	9.6	10.2	10.2	10.9	12.9	12.9	12.8

Source: International Trade Centre (2014)

A major issue for tea industry in this position and particularly for those in existence for some years is how to survive by maintaining or increasing market share. Since 2002, the tea industry was reported to have experienced a slow space of market share, thus in order to survive and maintain its competitiveness, innovation is fundamental. Innovation is considered as a fundamental component of business success. According to several specialists, innovation is now unavoidable for companies which want to develop and maintain a competitive advantage and sustain it (Bigliardi and Dormio, 2009).

Schumpeter (1947) stated that the differences and connections among invention, innovation and competition. Innovation strengthens competitiveness of companies and competition derives companies to be more innovative. As we know, tea is the most competitive product in the beverage industry. Sri Lanka tea faces enormous competition from countries like; Kenya, India, Vietnam and China. When competition is high, companies need to more concern on innovative strategy for their product, process and market. Tea industry is generally viewed as a mature, slow-changing and relatively low technology industry. However, it is clear that tea industry regards innovation as essential.

### 1.2 OBJECTIVE OF THE STUDY

It is clear from trade statistics that Sri Lankan tea industry is struggling with competitive position in tea export market. More competition derives companies to be more innovative. So, this reality derives to study how far companies, which engage in tea industry, are innovated in terms of product, process and market. In addition to that, it needs to identify the determinants of innovativeness in tea industry of Sri Lanka. Then, the main objective of this study is to identify the drivers of innovation of tea industry in Sri Lanka.

The paper outlines literature review on innovation and factors contributing to successful innovation, discussion of methodology and presentation of findings. Conclusion and discussion are drawn based on the analyses of results.

## 2. LITERATURE REVIEW

### 2.1 INNOVATION

A critical issue facing companies today is how to create and maintain a sustainable competitive advantage within a turbulent and complex business environment. Innovation is unavoidable for companies which want to develop and maintain a competitive advantage (Stock *et al.*, 2002). The term 'innovation' was used for

the first time by Schumpeter at the beginning of the 20<sup>th</sup> century (Hana, 2013, p.83). Schumpeter defined innovation as product, process and organizational changes that do not necessarily originated from new scientific discovers. In other words, it is the creation of new combination.

As Kuczumski (1996, p.7) stated, "Innovation cannot touch, smell, hear, see or taste, but [we] can sense, think and feel innovation. Innovation is best described as a pervasive attitude that allows business to see beyond the present and create a future vision". According to that definition innovation is the single best way to leapfrog competition, move ahead of the industry peak and most important, create new ways to bolster profit margins and fuel future earning streams. According to Bigliardi and Dormio (2009), innovation is defined as the successful introduction of something new and useful.

Innovation has experienced a remarkable change in recent years (Ongonga and Ochieng, 2013). There are five dimensions of innovation namely; producing new products, introducing new production methods and new process, exploiting new market, developing new raw materials and introducing/redesigning new organization. On the other hand, the significance of the spillovers of knowledge from external sources has been increasingly recognized in the process of innovation

As Bigliardi and Dormio (2009) mentioned, innovation has been studied in a variety of context, including in relation to technology, commerce, social system and economic development. Innovation may arise from a combination of already existing technology and its application in a new existing technology and its application in a new context (Hana, 2013). Based on this definition, innovation is not a pure application of new technology. Any slight improvement in product, process, and organizational changes may be considered as innovation. Johannessen *et al* (2001) also divided innovation into six categories such as; new product, new service, new production method, new market, new source of supply and new ways of organizing.

Based on the above definitions, innovation can be defined as an ongoing process of developing, improving, and exploring new product, process and market. Operation definition of innovation is developing new product or process or improving existing product or process.

## 2.2 DETERMINANTS OF INNOVATION

It literature, various classifications of innovation have been developed. As Bigliardi and Dormio (2009) mentioned, there are four domains of innovation namely; product innovation, process innovation, organizational innovation, and market innovation. Product innovation is any good, service or idea that is perceived by someone as new. Shepherd and Ahmed (2000) defined product innovation as the art of designing something that a customer desires which can be produced to a standard and price acceptable to both customer and supplier alike in as short a period of time as possible. Process innovation is the adaptation of existing product line as well as the installation of an entirely new infrastructure and the implementation of new technologies. Organizational innovation is changing marketing, purchase, sales, administration, management and staff policy. The exploitation of new territorial markets and the penetration of new market segments within existing markets are known as market innovation.

There are several factors affecting to innovative strategy in the firms. As Dodgson and Rothwell (1991) identified, promoting a corporate culture, creating structure reflecting in the effective use of systems, analyzing competitors, and developing cooperation and partnership were success factors for innovative strategy. Birchall *et al.*, (1996) emphasized that lack of bureaucracy, efficiency, informal communication, flexibility, close working relationships with customers, analysis of competitors, and supervisory and reward system support to be most relevant to innovation.

According to Romijin and Albaladejo (2002) educational background and work experience of management, qualification of workforce, research and development and training were internal factors affecting innovativeness of companies.

Avermaete *et al.*, (2003) carried out a study to identify the patterns of innovative activities and determinants of innovation in food firms in Belgian. The study included five indicators of innovation; product innovation, process innovation, certification of Hazard Analysis and Critical Control Point (HACCP), ISO 9000 certificates and participated in the organic food chain. Findings of the study revealed that innovation depended on the age of the company, company size and regional economic performance. In addition to that, the analyses show that product innovation typically accounted for a significant percentage of the firm's turnover. In other words, innovations are profitable.

Blumentritt (2004) mentioned that, fostering a creative environment, the right leadership, listen to new ideas, top management play multiple roles, and the right organizational system were also important to have successful innovation. Koellinger (2008) revealed that the education background of the business owners is an important factor explaining innovation in organization. Laforet and Tann (2006) suggested that, culture, process, leadership (CEOs'/owners' commitment to innovation) and company strategic orientation were the factors contribute to innovative management in small manufacturing firms. They indicated that there was a correlation between corporate culture and process innovation. In addition to culture, process and commitment, firm's size, age and flatter hierarchies were found to have effects on company innovativeness. In this study, customer dependency, lack knowledge and skills, training, networking and lack of financial resources were identified as main barriers for innovation.

Bigliardi and Dormio (2009) carried out an investigation to identify technological innovation determinants in food machinery industry in Italy. Results of the study revealed that collaboration with universities and research centres are important factors for innovation.

Hana (2013) also highlighted that people generate ideas that might help an organization gain a competitive advantage at least for a certain period of time. Therefore, innovation capability of an organization depends on its intellectual/knowledge assets and its ability to employ these assets. Outcomes of the study indicated that successful innovations are never a one-off event, but a result of a long-term process in which the human factor plays an important role. Innovation can only turn out to be successful if they are supported by top management and if an innovative creative team is composed of knowledge employees. The study finally concluded the without the right people with knowledge and experience, it is impossible to achieve the required level of innovations. Employee development through inside and outside training also play important role on innovation.

To determine which factors significantly influence innovativeness of companies Gungor and Gozlu (2012) examined internal and external determinants of innovation for Turkish companies. The results indicated that research and development activities, licensed technology usage, formal training programmes and experience of managers were significant internal determinants of innovation, international relation is a external factor for company's innovative strategy.

Negassi and Hung (2014) examined the determinants of innovation output in manufacturing industries in public and civil sector. In this study, researchers used mid/long-term models of competition, which are based on the production capabilities, choice of product line, research and development and the innovation of the firms. Several variables were used such as; market share, profits, capacity to self-finance, advertising expenditure, and number of granted patents. Based on the results of the study indicated that public sector competition index is not correlated with innovation. The main objectives of innovation of public sector firms are to improve product quality and extend product line. In contrast, civil sector's competition index is positively and strongly correlated with innovation. In addition to that, large firms in civil sector are more likely to introduce an innovation, mainly product and process innovation. In fact, civil sector seeks to explore new market and market drives innovation output.

There are many factors identified in previous which influence innovativeness of companies (Gungor and Gozlu, 2012). However, the results of these studies are still contradiction and drive opportunities for researchers to examine more in this area. The determinants of innovation can be differed with respect to the nation and industry. All the factors identified by the previous studies are included into promoting an innovative culture. The present study concerned product, process and market as a combination to identify the company's innovation.

## 2.3 INNOVATION AND TEA INDUSTRY

Literature also identified that innovation is vital factor for tea industry. The main objectives of Ongonga and Ochieng (2013) were to identify innovative strategies adopted and determine the effect of innovation on performance of tea firms in Kenya. The study sought to establish the relationship between innovation and organizational performance in tea industry. The study revealed that outputs of innovation are increased revenue and minimized labour cost. In the tea industry, these outputs can be achieved through application of innovations into various inputs in the companies. The innovative inputs in the tea companies include new technology of harvesting tea, highly skilled manpower, and new production techniques. During the last two years, the applications of harvesting machines and farming system have been outstanding developments in tea sector in Kenya. These strategies adopted resulted into increased revenue, high productivity levels and reduced costs.

Ethugala (2011) studied the determinants of business excellence of tea industry on Sri Lanka. The study concluded that relationships within the governance of the tea sector have had a significant impact on industry's income due to lack of coordination and cooperation in team efforts. Poor management relationships

led to resulting poor productivity. Tea sector operates as a combination of several partners; public, private and civil sector. Interrelations among these sectors ultimately affect the response on public and the team effort to change of workforce composition.

Herath and De Silva (2011) studied the most prominent strategies adopted by the firms to gain competitive advantage in value added tea industry. The study conducted was based on case studies of nine tea companies. Data was gathered through interviews conducted with the CEOs of the companies. Respondents discussed different strategies adopted by their firms to win the competitive advantage. The study revealed a variety of marketing and innovation strategies adopted by the firms. The results of the study indicated that brand building, niche marketing, product differentiation, cost leadership and customer focus were the most important strategies to gain competitive advantage in tea industry. Researchers also highlighted that firm's capabilities and innovations found vital for the value added tea export firms to achieve business success as well as to make substantial contribution to the Sri Lankan economy.

According to Herath and De Silva (2011), innovation is fundamental in gaining competitive advantage, combining the innovative efforts with appropriate strategy is found as vital for winning the competitive markets. Then it is more vital to identify how far tea companies are innovated and what factors influencing firms to being more innovated.

### 3. METHODOLOGY

#### 3.1 CONCEPTUAL MODEL

The conceptual model in this study is build upon knowledge adopted from literature. The proposed model consisted with three factors as possible determinants of innovation; corporate culture, working environment and network. Each factor included more than four variables. All factors investigated in this study are listed in table 3.1 and it includes the factors, related variables and scales.

TABLE 3.1: FACTORS AND RELATED VARIABLE

Factor	Related Variable	Scale
Corporate culture	CEO/Owner involves in new product development CEO/Owner involves in developing new process CEO/Owner involves in exploring new market	1- Yes 2- No
Working environment	New product development team Regular discussion Market study In-house training provide to employees Outside training provide to employees	1- Yes 2- No
Networking	Information sources Membership Collaborative training programmes Associate with research institutes	1- Yes 2- No
Innovation	Number of new product ideas generated Number of new product(s) launched Number of product improvements discussed Number of product improvement completed Number of innovation prizes won Investment in new machine equipments Upgrade production system Investment in R & D Exploring new markets (local and Foreign)	Number Number Number Number Number 1- Yes 2- No

Source: Laforet and Tann (2006), Bigliardi and Dormio (2009), and Gungor and Gozlu (2012)

Twelve indicators derived from the literature were used as measurement techniques of company's innovativeness. Each indicator allocated a specific score. As Laforet and Tann (2006) undertook, top 20 percent companies which scored high on the 12 criteria, were compared with the bottom 80 percent companies which scored low on the same criteria. Top 20 percent companies were referred as 'most innovative companies' and bottom 80 percent referred as 'less innovative companies'. However, in this study, the companies which scored high on the innovation measurement criteria were categorized as 'more innovative' companies, the latter as 'less innovative' companies.

#### 3.2 DATA COLLECTION AND ANALYSIS

Quantitative research approach was employed to conduct this study. Population of the study consisted with individual companies operating in tea industry in Sri Lanka. In here, companies were mainly concerned on tea manufacturing and tea exporting. An overall population of 392 companies was obtained from Export Development Board of Sri Lanka and Sri Lanka Tea Board. There are 156 companies who are exporting tea and 236 companies engage with tea manufacturing. Sample of the study consisted with 150 companies, 50 companies from tea exporting firms and 100 from tea manufacturing firms. Simple random sample technique was employed to select sample from the target population. CEO/Owner who is identified as being responsible of innovation was taken as sample unit of the study.

Primary data was collected using structured questionnaire through e-mail survey. The questionnaire consisted of three parts. The first part referred to collect demographic factors of the company. The second aimed at investigating the characteristics of the innovative activity carried out by the company. CEOs/owners were asked questions on company's new product development, process innovation, culture as well as networking. Finally, part three concerned the factors affecting innovation of the company.

Quantitative data analysis was aided by statistical package for social science (SPSS version 17). T-test was executed to determine whether any significant differences exist between more or less innovative companies' responses on independent variables. Discriminant analysis is used primarily to identify which factors differentiated the more or less innovative firms. In order to describe the data in terms of frequencies, cross-tabulation analysis was utilized.

### 4. FINDINGS

#### 4.1 SAMPLE CHARACTERISTICS

Of the 150 questionnaires e-mailed, a total of 48 were responded giving a response rate of 32 percent. Nineteen responses derived from tea manufacturers. Thirteen and sixteen replies received from tea exporters and tea manufacturer and exporter respectively. Based on innovation measurement criteria scores, there are twenty two companies categorized as less innovative companies and twenty six are categorized as more innovative companies. It is vital to identify which category is more innovative than others. Cross-tabulation analysis (Table 4.1) revealed that companies which engaging both tea manufacturing and exporting are more innovative than other two categories. Tea manufacturing companies recorded less innovativeness among the given categories.

TABLE 4.1: COMPANY\* LESS OR MORE INNOVATIVE CROSS-TABULATION

		Less or More Innovative		Total
		Less Innovative	More Innovative	
Company	Tea Manufacturer	13	6	19
	Tea Exporter	6	7	13
	Tea manufacturer and exporter	3	13	16
Total		22	26	48

It is also noted that innovation in tea manufacturers was based more around upgrading the production system where as tea exporters concerned on developing new product innovation.

There are fifty two percent of companies which have less than 25 years of experience and remain have more than twenty five years of experience. Considering the number of executive employees, sixty six percent of companies record less than thirty executive employees and thirty four percent of responded companies have more than 30 executive employees. On the other hand, forty four percent of companies employed less than fifty non-executive employees and remains have more than fifty non-executive employees.

E-mail survey was conducted among chief executives (CEOs)/owners of the randomly selected companies. Most of the responses education background is in sales/marketing background (forty five percent) and second level goes to engineering background (thirty two percent).

**4.2 CROSS-TABULATION ANALYSIS**

Cross-tabulation analysis was used to describe the data in terms of frequencies and it helps to identify the significant difference exist between more or less innovative companies' responses. Table 4.2 illustrates the results of cross-tabulation analysis.

TABLE 4.2: CROSS-TABULATION ANALYSIS

Criterion	Percentage of Company		Sig.
	Less Innovative	More Innovative	
<b>Corporate Culture</b>			
CEO/Owner has a dream to introduce new product	34	66	0.010
CEO/Owner has a dream to improve production process	44	56	0.410
CEO/Owner has a dream to identify new market	44	56	0.523
CEO/Owner involves in new product development	24	76	0.008
CEO/Owner involves in developing production process	36	54	0.032
CEO/Owner explores a new market	32	68	0.028
CEO/Owner shows a strong commitment to innovation	31	69	0.027
<b>Working Environment</b>			
Company has regular discussion with non-executive employees	27	73	0.001
Company has a suggestion box	31	69	0.006
Company's employees feel free to disagree with management decision	42	58	0.256
Company has new product development team	28	72	0.001
Company uses CAM system	21	79	0.005
Company regularly studies local competitions	49	51	0.058
Company regularly studies foreign competitions	19	81	0.001
Company provides in-house training for employees	48	52	0.452
Company provides outside training for employees	31	69	0.026
<b>Networking</b>			
Refer professional magazines for information	16	84	0.004
Refer internet/social media networks for information	42	58	0.256
Associate with Tea Research Institute	44	56	0.477
Participate tea related conferences	18	82	0.012
Member of any local social club	44	56	0.560
Member of any international association	18	82	0.000
Have collaborative training programmes	37	63	0.014
Refer Tea Market Update	50	50	0.218
Identify that state universities are important information sources for innovation	50	50	0.328
Identify Tea Research Institute as important information source for innovation	35	65	0.031

According to the table 4.2, there are few factors which not satisfied with the required standards (Sig.>0.05). Therefore, those factors dropped from the further analysis.

**4.3 DISCRIMINANT ANALYSIS**

The study performed a discriminant analysis selecting 'enter independent together'. The descriptive univariate Anova's box M and unstandardized function coefficients are requested.

TABLE 4.3: TESTS OF EQUALITY OF GROUP MEANS

	Wilks' Lambda	F	df1	df2	Sig.
Corporate Culture	.528	13.582	1	46	.005
Working Environment	.648	16.070	1	46	.002
Networking	.593	19.339	1	46	.003

In the table 4.3, the results of univariate Anova's are presented. Here, corporate culture, working environment and networking differ for the two groups (less innovative and more innovative companies).

The following table 4.4 indicates the significance of multivariate normal.

**TABLE 4.4: BOX'S TEST OF EQUALITY OF COVARIANCE MATRICES LOG DETERMINANTS**

Less or More Innovative	Rank	Log Determinant
Less Innovative	3	-0.831
More Innovative	3	-1.156
Pooled within-groups	3	-0.855

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

The significance value of 0.648 indicates that the data do not differ significantly from multivariate normal. This means the study can proceed with the analysis. The proportion of variance explained summary of canonical discriminant functions (table 4.5).

Test Results

Box's M		5.613
F	Approx.	.753
	df1	6
	df2	16678.124
	Sig.	.648

Tests null hypothesis of equal population covariance matrices.

**TABLE 4.5: SUMMARY OF CANONICAL DISCRIMINANT FUNCTIONS EIGENVALUES**

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.731 <sup>a</sup>	100.0	100.0	.829

a. First 1 canonical discriminant functions were used in the analysis.

An eigenvalue (0.731) indicates the proportion of variance explained. A large eigenvalue is associated with a strong function. The canonical relation (0.829) is a correlation between the discriminant scores and the levels of the dependent variable. A high correlation indicates a function that discriminates well. The present correlation is near 1.00 and it is significantly high.

**TABLE 4.6: WILKS' LAMBDA**

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.601	23.860	3	.000

Wilks' lambda (table 4.6) is the proportion of the total variance in the discriminant scores not explained by differences among groups. A lambda of 1.00 occurs when observed group means are equal (all the variance is explained by factors other than differences between those means), while a small lambda occurs when within-group variability is small compared to the total variability. A small lambda indicates that group means appear to differ. The associated significance value shows whether the difference is significant. Hence, the lambda of 0.601 has a significant value, the group means appear to differ.

The canonical discriminant function coefficients (table 4.7) indicate the standardized scores concerning the independent variables.

**TABLE 4.7: CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS**

	Function
	1
Corporate Culture	1.089
Working Environment	1.072
Networking	1.027

Functions at group centroids (table 4.8) show the average discriminant score for subjects in the two groups. The two scores are equal in absolute value however have opposite sign.

**TABLE 4.8: FUNCTIONS AT GROUP CENTROIDS**

Less or More Innovative	Function
	1
Less Innovative	.720
More Innovative	-.720

Unstandardized canonical discriminant functions evaluated at group means

The results obtained from the discriminant analysis highlighted that determining factors of more innovative companies are corporate culture, working environment and networking. It should be noted that demographic factors such as; experience, number of employees (executive and non-executive) and education background of CEO/Owner did not show any relationship with company innovativeness.

## 5. DISCUSSION AND CONCLUSION

The findings of the study identified three factors; corporate culture, working environment and networking, that contribute to innovative management in Tea firms in Sri Lanka. With regard to the corporate culture, innovation behaviour and commitment of CEO/Owner are high in more innovative companies than less innovative companies. In more innovative companies, CEO/Owner was more involved in developing new product, product process and exploring new markets than less innovative companies. In working environment factor, more innovative companies have product development team than less innovative. Further, more innovative companies provide more opportunities for their employees to reveal their ideas in free compartment. And also, more innovative companies have a better systems and technology in place than less innovative companies. For example, more innovative companies used Computer Aided Manufacture (CAM) system almost three times more than less innovative companies. Results also highlighted that employee's training was more limited in less innovative companies.

With regard to networking, more innovative companies expand their relationship with market entities through research conferences, international organizations and collaborative training programmes than less innovative companies.

The main constraints for innovation of more innovative companies are financial constraint, qualified persons and market accessibility. Whereas for less innovative companies, financial constraint, qualified persons and infrastructure are identified as the main barriers for innovation.

## 6. LIMITATION OF THE STUDY

The conceptual model of this study is totally based on three factors and there can be some other factors which play significant role on innovative activities. Yet, the study performed a discriminant analysis selecting enter independent together, therefore it is incapable to differentiate the factors influencing on innovation in terms of tea manufacturing companies and tea exporting companies.

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## FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH IN DEVELOPING COUNTRY

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**ABSTRACT**

*This paper sorts to the causal relationship between financial development which is the establishment and expansion of institutions, instruments and markets and Nigeria economic growth. The paper empirically examines the relationship between financial development and economic growth. Phillip Perron Unit Root Test, Johansen Co integration Test and Causality using Unrestricted VAR were use to analyze the information for the study. The result showed that there is a substantial positive effect of financial development on economic growth in Nigeria. The Granger causality test showed the existence of long run relationship between financial system and Nigeria economic growth. Thus, advancement of the financial sector development, including diversification of financial instruments should be pursued to facilitate economic development in Nigeria.*

**KEYWORDS**

Financial Development, Granger Causality, Economic Growth, economic development.

**1.1 INTRODUCTION**

The level of financial development is seen to be a good predictor of future economic growth, capital accumulation and technological changes (Levine, 1997). This is evidenced when financial development or the lack of it crucially affects the speed and pattern of economic development. There is no unanimous view on the ways financial development affect economic development. Some posit that finance is not important in determining economic development while others sees finance as very important in determining economic growth and development. Some empirical literature on finance and development suggests that countries with better developed financial systems experience faster economic growth (Demirgüç-Kunt, 2006). Schumpeter (1912); Goldsmith (1969); and McKinnon, (1973) posits that financial systems play a crucial role in alleviating market frictions and hence influencing savings rates, investment decisions, technological innovation which leads to long-run growth rates of the economy. In the light of the above, this study examined the financial development and economic growth relationship in Nigeria.

**1.2 FINANCIAL DEVELOPMENT**

Financial development refers to the structural changes of mechanisms and machineries over a long period of time that enhances the effectiveness and efficiency of transmuting funds from savers to investors and all other ancillary that affect the conversion of financial resources into real productive resources. Indicators such as financial depth, efficiency, access, size and openness, etc are used to measure financial development. Financial dept as it affects the volume of financial transaction in the entire financial system. Efficiency relates to the ease of transfer of fund or reduced cost of consummating financial contracts. Access borders on the amount of credit reaching those in need of it in the economy. It includes availability, cost, range and quality of financial services. It is also seen to include reliability, convenience, continuity, and flexibility of financial product in the financial market. While size and openness relates to the capital adequacy of each participants in terms of critical mass in the financial markets and also the availability of external sources of funds to the financial sector of the economy either through the capital market or the money market.

A developed financial system requires developed legal and information infrastructures to function well. Firms' ability to raise external finance in the formal financial system is limited if the rights of outside investors are not protected. Outside investors are reluctant to invest in companies if they will not be able to exert corporate governance and protect their investment from controlling shareholders/owners or the management of the companies (Demirgüç-Kunt, 2006). Timely availability of quality information is very important in helping to reduce information asymmetries between borrowers and lenders. Firms are able to access external finance in countries where legal enforcement is stronger (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997; Demirgüç-Kunt & Maksimovic, 1998).

**1.3 ECONOMIC DEVELOPMENT**

Traditionally, economic development means achieving sustained rates of growth of income per capita to enable a nation to expand its output at a rate faster than the growth rate of its population. Levels and rates of growth of real per capita gross national income (GNI) are used to measure the overall economic well-being of a population (i.e. how much of real goods and services is available to the average citizen for consumption and investment) Todaro & Smith (2011). He assert that the three objectives of development are

1. to increase the availability and widen the distribution of basic life-sustaining goods
2. to raise levels of living, and
3. to expand the range of economic and social choices available to individuals and nations by freeing them from servitude and dependence not only in relation to other people and nation-states but also to the forces of ignorance and human misery.

Countries are classified based on their gross national income per capita to whether they are low-income countries, lower-middle income countries, upper-middle income countries, high income Organization for Economic Cooperation and Development (OECD) countries and other high-income countries. Those that fall within the low and middle-income group are generally referred to as developing countries which Nigeria is one of them.

**Some Theories of economic Growth and Development**

**Rostow's stages of growth** explained that the transition from underdevelopment to development can be described in terms of steps or stages through which all countries must proceed. **Harrod-Domar growth model** referred to as AK model based on linear production function with output given by the capital stock  $K$  times a constant labelled  $A$ . His model is a functional economic relation in which the growth rate of gross domestic product depends directly on the national net savings and inversely on the national capital-output ratio. **The Lewis theory of development** focused on structural transformation of a primarily subsistence economy. He asserts that surplus labour from the traditional agricultural sector is transferred to the modern industrial sector, the growth of which absorbs the

surplus labour, promotes industrialization, and stimulates sustained development. International-dependence model view developing countries as beset by institutional, political and economic rigidities, both domestic and international, and caught up in a dependence and dominance relationship with rich countries. Harod-Domar growth model seem more apt for this study but just to mention a few of theories of economic growth and development.

## 2.0 LITERATURE REVIEW

### 2.1 CHANNELS THROUGH WHICH FINANCE IMPACT ON ECONOMIC GROWTH

The production function is the link between finance and economic development. In essence money, credit, and finance are the life-blood of a production unit in an economy. Today financial indices are used as barometers to measure the performance of the economy. Impliedly, a well-developed and functional financial system contribute significantly to the economy, contrarily, economic growth is inhibited (or hindered) in an economy with undeveloped or underdeveloped financial system. Robinson (1952) claimed that financial development follows economic growth as a result of increased demand for financial services.

According to Bhole (2004) he identified three routes through which finance accelerates economic growth. They are:

- 1) Technical progress: the increase in human and physical capital requires higher savings and investments
- 2) Capital formation: through this financial system also contribute to economic growth.
- 3) Multiplier effects of capital investment that enlarges the markets over space and time which enhances the efficiency of the function of medium of exchange and thereby helps in economic development.

Bhole identified the following theories in explaining the importance of finance and financial system to economic development. They are:

1. The classical prior savings theory
2. Credit creation theory
3. Forced saving or inflationary financing theory
4. Financial repression theory
5. Financial liberalisation theory

**Prior Saving Theory:** it regards savings as a prerequisite or a determinant of investment. It posits that all savings in the economy can find investment outlets. It also posit that any investment which is not financed by prior savings will generate inflation and not real income or development. This theory does not subscribe to the view that inflation is needed for growth. It is averse to inflation, it advocate control of inflation and suggests a policy of reasonably high positive real interest rates to encourage savings by the public. They believe in the neutrality of money in the growth process.

Bhole (2004:1.11) stresses that "the function of a financial system is to establish a bridge between the savers and investor and thereby help the mobilisation of savings and thus enable the fructification of investment ideas into reality.

The financial system induces people to hold less of savings in the form of precious meta, real estate land and properties, consumer durables, and currency, and to replace these assets by bonds, share, units etc. It also increases the volume and rate of savings by supplying diversified portfolio of such financial instruments, and by offering inducements and choices which are in keeping with the array of savers' preference. He summarized the proximate functions of a financial system as follows:

- 1 Facilitate separating, distributing, trading, hedging, diversifying, pooling and reducing risks.
- 2 Allocate resources
- 3 Monitors managers and exerts corporate control
- 4 Mobilise savings
- 5 Facilitate exchange of goods and services, that is facilitates efficient operation of the payment mechanism.
- 6 Enable economic unit to exercise their time preference.
- 7 Transmutes or transforms financial claims so as to suit the preferences of both savers and investors.
- 8 Enhances liquidity of financial claims through securities trading.
- 9 Facilitate better portfolio management.

**Credit Creation Theory:** the two views of this theory are that firstly, the financial system plays a positive and catalytic role by providing finance or credit through credit creation in anticipation of savings. And secondly, the investment financed through created credit generates the appropriate level of income which are equal to the investment already undertaken thereby leading to economic development.

**Forced Savings Theory:** this is also known as inflationary financing; it stresses force savings as the cause of increasing investment. Keynes and Tobin posit that savings are determined by investments which are increased autonomously through monetary expansion. The monetary expansion speed up development through four channels:

1. Unemployed resources increase aggregate demand, output, and savings.
2. Fully employed resources generate inflation which lower the real rate of return on financial investments or money. This will make real balances less attractive to hold and induce the wealth holders to invest more in physical capital. The resulting increase in capital intensity increase output and savings referred to as **Tobin or Portfolio shift effect** of monetary expansion.
3. Inflation changes income distribution in favour of profit earners, which would lead to increase in savings referred to as **income distribution effect**.
4. Inflation tax effect: inflation impose tax on real money balances and thereby transfers resources to the government for financing investment.

**Keynes and Tobin** posit that investment and not savings is a constraint on growth. Hence the need for negative or low real interest rate to encourage private investment.

**Financial Regulation Theory:** this theory argued that financial markets are prone to market failure, and there are certain forms of government intervention that will make them function better. The reduction of interest rates through government intervention improves the efficiency with which capital is allocated. Also government intervention like direct credit programmes can encourage lending to sectors which are usually shunned by the market. In the economies where the markets are undeveloped and imperfect, unfettered competition does not ensure Pareto-Optimum or Pareto-Efficient resources allocation. The unfettered competition among financial intermediaries cannot achieve and protect the social benefits of a stable payment system, it tends to increase the probability of bank failure and the breakdown off the payment mechanism.

Countries with intervention and interferences in their financial systems suffer from poor performance in respect of saving, investment and growth due to financial control, regulation, repression by authorities. The indicators of financial repression are:

- a. The existence of indiscriminate distortions in financial prices such as interest rates and exchange rates,
- b. Imposition of interest rates ceiling or fixing nominal interest administratively resulting in low or negative real interest rate.
- c. Prescribing high reserve ratios.
- d. Instituting direct credit programmes, and
- e. Inefficient quantitative (non-price) credit (loanable funds) rationing.

All this results in lower volume and quality of investment because financial institutions ration available funds or allocate credit not in the light of expected marginal productivity of investment but by using their discretion or in the light of transaction costs, perceived default risk, quality of collateral, political pressures, loan size and convert benefit to loan officers.

**Financial Liberalization Theory:** this theory argued that elimination of financial repression through financial liberalization, deregulation, and privatization is essentially to eliminate all the ill-effects and distortions from financial repression and to put developing economies on high saving, high investment and high growth path. Financial liberalization result in the following:

- a. Increase in interest rates on a variety of financial assets as they would adjust to their competitive free-market equilibrium level.
- b. Increase in saving, reduction in the holding of real assets, and increase in financial deepening.

- c. Expansion in the supply of real credit.
- d. Increase in investment
- e. Increase in average productivity of investment and
- f. Increase in allocative efficiency of investment.

Liberalization, including deregulation of interest rates and more relaxed entry policies, often led to significant financial development, particularly in countries where there was significant repression, but the enthusiasm with which financial liberalization was adopted in some countries in the absence of or slow implementation of institutional development also left many financial systems vulnerable to systemic crises (Demirgüç-Kunt and Detragiache, 1999). Summarily, financial repression reduces the real size of the financial system; it inhibits financial deepening and financial development, while financial liberalization accelerates financial and economic development. Through IMF-WB guided liberalization, deregulation policies have significantly increased volatility, instability, contagion and vulnerability in the financial system. They have in many cases be accompanied by the collapse of banks, other financial institutions, national currencies, etc.

Researchers use the following indicators to measure the degree of financial development

- 1 financial ratio (FR): the ratio of total issues of primary and secondary claim to national income.
- 2 financial inter-relation ratio (FIR): the ratio of financial assets to physical assets in the economy
- 3 new issue ratio (NIR): the ratio of primary issue to the physical capital formation which indicates how investment has been financed by direct issues to savers by the investing sectors.
- 4 intermediation ratio (IR): the ratio of secondary issue to primary issue, which indicates the extent of development of financial institutions as mobilisers of funds relative to real sector as direct mobilisers of funds. It indicates institutionalisation of the financial activity in the economy.
- 5 the ratio of money to national income: the higher this ratio, the greater the financial development because it indicates the extent of monetisation and the size of exchange economy in the country.
- 6 the proportion of current account deficit which is financed by market related flows; the higher this ratio the greater the financial development, while the reliance on official economic assistance for financing such deficit denotes financial underdevelopment.
- 7 developed financial sector is fully integrated (is not segmented) domestically as well as internationally. Implying no differences between rates of return on savings and investment.
- 8 the lower the transaction cost and information cost, the higher the financial development.
- 9 government intervention in credit allocation and predominance of private banking.
- 10 existence of strong and effective system of supervision, auditing, and regulation, and regular collection of prudential information; and financial organizations conform to international standards with regards to capital adequacy, non-performing loan, etc.
- 11 existence of strong, active, large-sized non-bank financial sector comprising stock market, debt market, insurance companies, pension funds, mutual funds, etc.
- 12 the greater the financial development, the greater the openness of the economy reflected in a high level of current and capital account openness/convertibility, minimum restrictions on foreign ownership of assets and repatriation of earnings, and the absence of parallel foreign exchange market.
- 13 effective and quick enforcement of financial contracts, recovery of loans and property rights.
- 14 existence of a well-developed secondary markets in all financial securities
- 15 frequent use of indirect techniques of monetary policy and market freely determined interest rates.

## 2.2 THE NEXUS BETWEEN FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH

Financial systems help mobilize and pool savings, provide payments services that facilitate the exchange of goods and services, produce and process information about investors and investment projects to enable efficient allocation of funds, reduce transaction costs, supply liquidity, monitor investments and exert corporate governance after these funds are allocated, and help diversify, transform and manage risk (Demirgüç-Kunt, 2006). These functions performed by the financial system are the channels through which development in the financial system leads to increase in investment in the real sector that translate to increase in economic growth. Also, increase in economic growth can lead to increase in the activities of the financial system thereby creating demands for financial services and instruments which brings about growth in financial development.

The pattern of relationships between financial and economic development has many view to it, how it occur and which occurs first. The **demand-following or passive financial development** posits that economic progress induces an expansion of the financial system; as the per capita income increases, investment demand for diversified financial assets increases. At low levels of income, there is lack of demand for varied financial services. The **supply leading financial development** argued that financial development precede economic development, through conscious and deliberate policy by the authorities by establishing and promoting financial institutions and financial instrument. **Bi-directional causality between economic development and financial development** argued that there is Symbiotic, mutually reinforcing and intertwined relationship between economic development and financial development.

Finance contributes more to long term growth by increasing economies total factor productivity rather than by raising the rate of capital accumulation. The financial markets is seen to transfer only a small part of household saving into productive business investment, quite a large part of it goes into real estate, residences, gold and consumer durables. Their allocative efficiency is very low, spending much on advertising large lenders and denying credit to small scale industries and new entrepreneur but are eager to lend huge sum to the big corporations.

### EMPIRICAL LITERATURE

Some political economy theories also suggest that better functioning financial systems make financial services available to a wider segment of the population, rather than restricting them to politically connected incumbents (Rajan & Zingales, 2003; Morck, Wolfenzon and Young, 2005). Yet others argue that financial access, especially to credit, only benefits the rich and the connected, particularly at early stages of economic development and therefore, while financial development may promote growth, its impact on income distribution is not clear (Lamoreaux, 1994; Haber, 2004 and 2005).

Joan Robinson (1952) posits that where enterprise leads, finance follows. According to this view, economic development creates demand for particular types of financial arrangements, and the financial system responds automatically to these demands. It is believed that countries with large banks and more active stock markets grow faster over subsequent decades (Levine, 1997). Generally, financial system is seen to facilitate the allocation of resources, across space and time, in an uncertain environment (Merton & Bodie, 1995). Also Rostow argued that demand side of investment rather than supply of funds may be the decisive element in take off. Schumpeter (1912) contends that well-functioning banks spurs technological innovation by identifying and funding those entrepreneurs with the best chances of successfully implementing innovative products and production process.

Specifically, financial systems perform the following functions to bring about growth and development.

- a) Mobilize savings
- b) Allocate resources
- c) Facilitate the pooling of resources
- d) Facilitate the trading, hedging, diversifying, and pooling of risk
- e) Exert corporate governance (Cudi-Tuncer & Alovat, 2001)
- f) Facilitate the exchange of goods and services through its payment mechanisms.

Levine examined finance-growth nexus through the channel of capital accumulation and technological innovation. According to him, the financial system affects capital accumulation by altering the savings rate or by reallocating savings among different capital producing technologies. In his theoretical approach to finance and growth, through market frictions (information and transaction cost) financial markets and intermediaries interplay by various financial functions they

perform to bring about growth in the economy. The model for finance growth nexus is from market frictions of financial markets through financial functions of financial intermediaries to growth. Also changes in economic activities can influence financial systems with dynamic implications for economic growth.

Financial development is seen to involve improvements in producing information about possible investments and allocating capital, monitoring firms and exerting corporate governance/control, trading, diversification, and management of risk, mobilization and pooling of savings, and easing the exchange of goods and services through effective payment system. The channel through which finance takes to impact on growth is through savings and investment and technological innovations and hence economic growth.

King & Levine (1993) concluded that financial development "leads" economic growth and Levine & Zervos (1998) found that stock market and banking development "leads" economic growth. Financial sector development impacts economic growth through efficient resource allocation and productivity growth rather than through the scale of investment or savings mobilization (Beck, Levine, & Loayza, 2000). Cross-country time-series studies revealed that **financial liberalization** boosts economic growth by improving allocation of resources and the investment rate (Bekaert, Harvey and Lundblad, 2001 and 2005).

In a study by Leita0 (2010) where he examined 1980 to 2006 data of the European Union Countries and BRIC (Brazil, Russia, India and China) using a static and dynamic panel data approach, his results revealed that financial development contributes to economic growth. The impact of finance is stressed on growth through the mobilization of domestic savings and investment through the financial systems. Goldsmith (1969) and McKinnon (1973) consider a positive correlation between economic growth and financial development.

Sinha & Macri (2001) examine the relationship between financial development and economic growth for eight Asian countries, where they concluded that there is a bilateral causal relationship between the examined variables in some countries. They also found a unidirectional causal relationship between financial development and economic growth while some other countries exhibited reverse causality from economic growth to financial development.

Existing literature suggests as a proxy for financial development the ratio of money supply (M2) to the level of GDP. This ratio measures the extent of monetization rather than financial deepening. It is possible that this ratio may be increasing due to the monetization process. An alternative hypothesis is to deduct the active currency in circulation from M2 or to use the ratio of domestic bank credit to nominal GDP. In essence, the monetization variable M2/GDP is designed to show the real size of the financial sector (Liu, Song, & Romilly, 1997). Demirgüç-Kunt, (2006) used size, depth, efficiency and reach of financial systems as proxy for financial development. Demirguc-Kunt & Maksimovic (1998) use firm level data and a financial planning model to show that more developed financial systems – as proxied by larger banking systems and more liquid stock markets- allow firms to grow faster than rates they can finance internally. Demirguc-Kunt & Maksimovic (2002) confirmed that financial development eases the obstacles that firms face to growing faster in a study where they used firm level survey data for a broad set of countries.

### 3.0 METHODOLOGY

Growth indicators are real per capita GDP growth, growth in capital stock per person and total productivity growth.

For financial development, the size of financial intermediaries relative to the size of the economy rises as a country develops. And also credit to private enterprise divided by GDP and financial debt, that is liquid liabilities of financial system divided by GDP.

A growing body of work demonstrates a strong, positive link between financial development and economic growth and there is even evidence that the level of financial development is a good predictor of future economic development.

To measure the depth of the financial system – banking system and stock markets, the study used credit to private sector and public sector and also stock market capitalization. Private and Government Credit cover the amount of credit (in the money market) channelled from savers, through financial intermediaries, to private and public firms. Also Stock Market Capitalization indicates the ability to mobilize capital and diversify risk.

The interest rates and lending rates measures the efficiency with which the financial system transfers resources from savers to investors.

Total number of banks and number of listed securities measure the size of the financial system. While the number of banks abroad and foreign banks at home and the FDI measures openness of the financial system.

In modelling financial development and economic growth, the model of this study follow those of Levine (1997), Beck *et al.* (2000), and Levine *et al.* (2000) as follows:

*Economic Growth* = *f* (size, depth, liquidity, access, efficiency, openness etc)

**RGDP** = *f* (NCG, CCP, IR, SR, TMMI, MC, MV, TCBB, DB, SB, SFIs, ER )

Where:

RGDP = Economic Growth

NCG = Net Credit to Government

CCP = Core credit to Private Sector

LR = Prime Lending rate (Interest Rate)

SR = Savings Rate

MC = Total Annual Market Capitalization

TMMI = Total Money Market Instrument

MV = Ratio of Money Supply to GDP (Monetization variable)

TCBB = Total commercial bank branches

DB = Development Banks

SB = Specialized Banks

SFIs = Specialized Financial Institutions

TS = Total Savings

ER = Exchange Rates

TABLE 3.1 COMPOSITION OF FINANCIAL INSTITUTION  
A MEASURE OF SIZE

<b>BANKS / INSTITUTIONS</b>
<b>DEVELOPMENT BANKS</b>
Educational Bank
Urban Development Bank
Nigerian Export and Import Bank
Bank of Industry
Nigeria Agric. Credit Dev. Bank
Federal Mortgage Bank
<b>SPECIALISED BANKS:</b>
Community Banks (Microfinance Banks)
Peoples Bank ( Branches )
<b>SPECIALISED FINANCIAL INSTITUTIONS:</b>
Finance Houses
Insurance Companies (Reporting)
Discount Houses
Primary Mortgage Institutions
National Economic Reconstruction Fund (NERFUND)
National Social Insurance Trust Fund (NSITF)
Nigeria Deposit Insurance Company (NDIC)
Securities and Exchange Commission (NSE)
National Insurance Commission (NAICOM)
National Pension Commission (PENCOM)

Source: World Bank Development Indicator and OECD data file

Following the study of King & Levine (1993), this study used gross domestic product as a proxy for economic growth.

The model of this study follows the argument of Prior Savings Theory which stresses the relationship between savers and investors – that the mobilization of savings enables the fructification of investment ideas into reality. The variables to examine the channels of funds to the investing units of the economy is the amount of credit extended to the core private sector and net credit to government, prime lending rates, savings rates as independent variables

The equation for estimation is as below:

$$RGDP_t = \beta_0 + \beta_1 RGDP_{t-1} + \beta_2 NCG_t + \beta_3 CCP_t + \beta_4 LR_t + \beta_5 SR_t + \beta_6 TMMI_t + \beta_7 MC_t + \beta_8 MV_t + \beta_9 TCBB_t + \beta_{10} DB_t + \beta_{11} SB_t + \beta_{12} SFIS_t + \beta_{13} ER_t + \mu_t$$

The *a priori* sign are all positive with magnitude greater than zero. The study used **correlation matrix** to determine the existence of relationship between the variables.

Economic growth (growth rate of real GDP per capita) proxy as the dependent variable while other variable as independent variables. The data were collected from the Central Bank of Nigeria (CBN) statistical bulletin and Annual reports of various years.

In Shan, Morris, & Sun (2001), they used Granger causality procedure to examine the relationship between financial development and economic growth for nine Organization of Economic Cooperation and Development (OECD) countries and China by estimating a vector autoregression (VAR) model. Their study revealed that five out of ten countries have a bilateral Granger causality; three of them have reverse causality with economic growth leading to financial development while two countries do not have a causal effect at all.

#### UNIT ROOT AND COINTEGRATION

To avoid spurious or nonsensical regression results, the study conducts a unit root test to ensure the stationarity of the variable before cointegration test and ultimately a granger causality test. The unit root test used was the one proposed by Phillips & Perron (1988) being an extension of the Dickey-Fuller tests that makes semi parametric correction for autocorrelation.

#### COINTEGRATION TEST

The study also utilized cointegration test as developed by Granger and his associates to examine whether long run equilibrium exist between the variables (Granger, 1986, Engle and Granger, 1987). Tests of cointegration allow for the estimation and testing of unique cointegrating vector, though it has been criticised for ignoring potentially valuable information contained in the short run fluctuation of the variables.

#### CAUSALITY USING UNRESTRICTED VAR

The study used causality test as introduced by Granger (1988), to test for Granger causality between the variables. The basic idea is that if changes in X precede changes in Y, then X could be a cause of Y. This involves an unrestricted regression of Y against past values of Y, with X as the independent variable and regressing Y against past values of Y only. This is to verify whether the addition of past values of X as an independent variable can contribute significantly to the explanation of variations in Y (Giri, & Mohapatra, 2012). For any F-statistic, the null hypothesis is rejected when the p-value is significant (less than 0.05 or 5% level of significance or those stated otherwise). A rejection of the null hypothesis would imply that the first series Granger-causes the second series and vice versa.

4. ANALYSIS OF DATA

TABLE 4.1: RESULTS OF PHILLIP PERRON UNIT ROOT TEST

Variables	PP Unit Root Test Statistic	Order of Integration	Remark
	at level with intercept		
GDP	2.263582	Level	NS
NCG	-1.704017	Level	NS
CCP	1.404633	Level	NS
LR	-3.187547*	Level	S
SR	-0.939961	Level	NS
TMMI	-1.760133	Level	NS
MC	1.257971	Level	NS
MV	-0.086862	Level	NS
TCBB	0.515119	Level	NS
DB	-2.499552	Level	NS
SB	-2.319330	Level	NS
SFIs	-2.753355***	Level	S
ER	-0.024484	Level	NS
	At 1 <sup>st</sup> Difference with intercept		
D(GDP)	-2.932780***	I(1)	S
D(NCG)	-3.421965**	I(1)	S
D(CCP)	-7.079406*	I(1)	S
D(SR)	-5.719050*	I(1)	S
D(TMMI)	-4.989743*	I(1)	S
D(MC)	-5.442686*	I(1)	S
D(MV)	-4.354575*	I(1)	S
D(TCBB)	-5.748341	I(1)	S
D(DB)	-4.311924*	I(1)	S
D(SB)	-2.874544***	I(1)	S
D(ER)	-5.134565*	I(1)	S

\*, \*\*, \*\*\* denotes MacKinnon critical value for rejection of hypothesis of a unit root at 1%, 5% and 10%. D indicate first differencing.

UNIT ROOT TEST

The results of the Phillip Perron Unit Root Test on the variables revealed that Lending Rate (LR) and Specialized Financial Institution (SFIs) were stationary at level while all other variable were all found to be integrated of order one (i.e. I(1)).

JOHANSEN COINTEGRATION TEST

When some proxy of financial development (MV, LR, CCP, SR, MC) where analysed with the proxy of economic growth (GDP), the cointegration results indicated that there are two cointegrating equation at 5% significance level with a Likelihood Ratio of 38.91525. This means that there exist long-run relationship between economic growth and financial development. This agreed with previous studies that argued that the growth and development of the economy give rise to certain financial services which stimulate growth in the financial system. The normalized cointegrating coefficients revealed that LR and MC are negatively signed meaning that they inversely affect the growth of the economy and that growth in the economy inversely affect these variables. MV, CCP and SR are positively signed with SR having the highest coefficient implying that growth in savings rate stimulates growth in the economy.

Results of the cointegration tests are as follows:

TABLE 4.2: COINTEGRATION TEST FOR FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH

	Likelihood	5 Percent	1 Percent	Hypothesized
Eigenvalue	Ratio	Critical Value	Critical Value	No. of CE(s)
0.850470	144.3341	94.15	103.18	None **
0.800852	87.32638	68.52	76.07	At most 1 **
0.489516	38.91525	47.21	54.46	At most 2
0.315187	18.74335	29.68	35.65	At most 3
0.138118	7.385064	15.41	20.04	At most 4
0.092927	2.925962	3.76	6.65	At most 5

Source: EView Output, 2014.

With selection of some variable to x-ray long-run relationship between functional financial system (DB, SB, SFIs, TCBB and TMMI) and economic growth (GDP), the cointegration result revealed five(5) cointegrating variable showing the existence of long-run relationship between financial system and economic growth. This is hinged on the argument that a developed financial system through its function of financial intermediation increases investment in the economy and hence output.

TABLE 4.3: LONG-RUN RELATIONSHIP BETWEEN FUNCTIONAL FINANCIAL SYSTEM & ECONOMIC GROWTH

	Likelihood	5 Percent	1 Percent	Hypothesized
Eigenvalue	Ratio	Critical Value	Critical Value	No. of CE(s)
0.970455	229.3904	94.15	103.18	None **
0.915385	155.4320	68.52	76.07	At most 1 **
0.885188	103.5694	47.21	54.46	At most 2 **
0.848675	58.11574	29.68	35.65	At most 3 **
0.571711	18.46087	15.41	20.04	At most 4 *
0.030652	0.653770	3.76	6.65	At most 5

Source: EView Output, 2014.

As used in Liu *et al* (1997), the study using MV as a summary statistic for financial development to conduct Granger Causality Test revealed that MV cause GDP and that GDP does not cause MV. This means that the flow of causation between financial developments to economic growth is through financial development to economic growth and not the reverse.

TABLE 4.4: PAIRWISE GRANGER CAUSALITY TESTS

Null Hypothesis:	Obs	F-Statistic	Probability	Causality
MV does not Granger Cause GDP	30	1.73780	0.19649	NO
GDP does not Granger Cause MV		3.60576	0.04208	YES

Source: EView Output, 2014.

## 5. CONCLUSION AND RECOMMENDATION

Following from the findings of the study, we conclude that financial development lead to economic growth. A functional financial system helps the economy to efficiently allocate financial resource which is transmuted to increase in output through the real sector of the economy. Nations, particularly developing countries should encourage the development of financial institutions and financial services through liberalise financial system to be able to efficiently pull and utilize the financial resources in the nation. In lieu of this the nation should strengthen macroeconomic policies and legal framework that will make financial institutions and services thrive. Further studies can examine which subsector of the financial system contributes to economic growth more rapidly.

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## PROSPECTS OF ECOTOURISM IN BIHAR

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## ABSTRACT

*Eco-tourism focuses on local cultures, wilderness adventures, volunteering, personal growth and learning new ways to live on our vulnerable planet. It is typically defined as travel to destinations where the flora, fauna, and cultural heritage are the primary attractions. Responsible Eco-tourism includes programs that minimize the adverse effects of traditional tourism on the natural environment, and enhance the cultural integrity of local people. Responsibility of both travellers and service providers is the genuine meaning for eco-tourism. Saving the environment around you and preserving the natural luxuries and forest life, that's what eco-tourism is all about. This Paper reviews and helps in exploring the prime Eco tourism destinations available in the State of Bihar. The study involved exploratory interviews with the local residents and through the different written sources available on the internet. Bihar Government is betting big on Eco tourism especially in Valmiki Tiger Reserve which fourth largest tiger reserve in India There is more emphasis on Eco-Tourism has been taken as it was absent Earlier. Historical, biological and cultural conservation, preservation, sustainable development etc. are some of the fields closely related to Eco-Tourism. As Bihar is very much rich in this diversity as it has 3000 years back history which includes lot of cultural and historical diversity. Many professionals have been involved in formulating and developing eco-tourism policies. They come from the fields of Geographic Information Systems, Wildlife Management, Wildlife Photography, Marine Biology and Oceanography, National and State Park Management, Environmental Sciences, Women in Development, Historians and Archaeologists, etc. Eco-tourism is considered the fastest growing market in the tourism industry, according to the World Tourism Organization with an annual growth rate of 5% worldwide and representing 6% of the world gross domestic product, 11.4% of all consumer spending - not a market to be taken lightly.*

## KEYWORDS

Ecotourism, Flora, Fauna, Cultural diversity, Biodiversity, Wildlife sanctuary, Sustainable.

## INTRODUCTION

Fundamentally, eco-tourism means making as little environmental impact as possible and helping to sustain the indigenous populace, thereby encouraging the preservation of wildlife and habitats when visiting a place. This is responsible form of tourism and tourism development, which encourages going back to natural products in every aspect of life. It is also the key to sustainable ecological development. The International Eco-tourism Society defines eco-tourism as "responsible travel to natural areas that conserves the environment and improves the well-being of local people." This means that those who implement and participate in Eco-tourism activities should follow the following principles:

Minimize impact

Build environmental and cultural awareness and respect

Provide positive experiences for both visitors and hosts

Provide direct financial benefits for conservation

Provide financial benefits and empowerment for local people

Raise sensitivity to host countries' political, environmental, and social climate

Support international human rights and labour agreements

The history of Bihar indicates a rich culture inherited from various dynasty and birthplace of and great personalities and several religions. It has immense potential for tourism activities like religious tourism, heritage tourism, and nature tourism. Apart from that, the wildlife, birds and sanctuaries hold vast potential for eco-tourism. But the tourism potential of the state for generating much needed income and employment remain under-utilized.

Generally, ecotourism deals with living parts of the natural environments. Ecotourism focuses on socially responsible travel, personal growth, and environmental sustainability. Ecotourism typically involves travel to destinations where flora, fauna, and cultural heritage are the primary attractions. Ecotourism is intended to offer tourists insight into the impact of human beings on the environment, and to foster a greater appreciation of our natural habitats.

## OBJECTIVE

The objective of this research paper is to explore the Prospects of Eco-Tourism in Bihar so as to position Bihar in the list of tourist destinations in the said field.

## RESEARCH METHODOLOGY

Data was accumulated through various sources like internet, reference materials, newspapers, magazines etc.

## PROSPECTS OF ECOTOURISM IN BIHAR

## VALMIKI NATIONAL PARK AND WILDLIFE SACNCTUARY

Valmiki National Park and Wildlife Sanctuary is located in the West Champaran district of Bihar state, India. The extensive forest area of Valmikinagar was previously owned by the Bettiah Raj and Ramanagar Raj until the early 1950s. Valmiki Tiger Reserve (VTR) is one of the natural virgin recesses in east India, situated in the north west corner of Bihar. The pristine forest and wilderness of VTR is an excellent example of Himalayan Terai landscape. VTR comprises the Valmiki National Park and Valmiki Wildlife Sanctuary. The VTR forest area covers 899.38 square kilometres (347.25 sq mi), which is 17.4% of the total geographical area of the district West Champaran. As of 2013, there were 22 tigers in the Reserve.

The name of the district West Champaran derives from two words, Champa and Aranya, meaning forest of Champa trees. Total forest area comprises about 900 square kilometres), out of which the Valmiki Wildlife Sanctuary is 880 square kilometres and spread of the National Park is about 335 square kilometres area. In the north, the protected areas are bordered by Nepal while the Indian state Uttar Pradesh bounds the sanctuary from western side.

Bihar Government is turning 800 hectares of forest in VTR into Grassland making it India's biggest grassland. The landscape of VTR encompasses foothills ranges of Himalayan Siwaliks with mosaic of the cliffs, ridges, gorges, hills, streams and valleys; dense forests, open woodlands, grasslands, swamps and riverine fringe. Situated in Gangetic plains bio-geographic zone of the Country, the forest has combination of bhabhar and terai tracts. Boulder and pebble deposits by the Himalayan rivers in foothills characterized the Bhabhar tract while the finer sediments deposits feature terai lands.

## WILD ANIMAL DIVERSITY

**MAMMALS:** The wild mammals found in the forest of VTR are tiger, Rhinoceros, Black bear, Leopard, Wild dog, wild buffalo, wild boar etc. There are several species of deer and antelopes found in VTR which are barking deer, spotted deer, Hog deer, Shambhar, Blue bull. Apart from that hyena, Leopard cat, Wild cat, fishing cat, Languor, monkey, and flying squirrel can also be sighted in VTR.



**REPTILES:** The reptiles which are commonly found in VTR are python, Cobra, King cobra, Krait, Banded krait, domuha snake (sand boa), etc. Among aquatic reptiles crocodiles, otters (water cat), Ghariyal, monitor lizard, etc. are found in VTR. Good number of crocodiles are found near Belahwa Village which is adjacent to the VTR. Ghariyals are found in river Gandak.

**BIRDS:** At present 241 bird species have been reported from VTR. Some of the interesting birds of VTR are Nepal kaleej pheasant, three-toed quail, flycatcher, grey shrike, green willow warbler, tree pipit, white eye, green barbet, waders, ibises, storks, pitta, plovers, snipes, pied hornbill, emerald dove. There are five types of green pigeons and purple wood pigeon found in VTR. In the night several owls, owlets, nightjars, etc. can be easily sighted.

#### **PLANT DIVERSITY**

The important tree species found in valley area of VTR are Sal (*Shorea robusta*), Karam (*Adina cardifolia*), Asan (*Terminalia tomentosa*), Bahera (*Terminalia balerica*), Asidh (*Lagestomia parviflora*), Simal (*Salmelia malaberica*), Satsal (*Dalbergia latifolia*), etc.

In hilly regions apart from Sal, Piyar (*Buchanania lanzon*), Mandar (*Dillenia aurea*), Banjar (*Anogeissus latifolia*), Bhelwa (*Semicarpus anacadium*), Harra (*Terminalia chebula*), Boderia (*Eugenia operculata*), etc. tree species are found.

#### **CULTURAL DIVERSITY**

The Valmiki landscape harbours vivid socio-cultural diversity. 'Tharu', a scheduled tribe, is the dominant community in the landscape. There are several theories on colonization of this community in the Himalayan terai. It is said that the community migrated from Rajasthan to the Himalayan foothills some 400 years ago. Their prime occupation is agriculture and staple food is rice. They are non-vegetarian and like chicken, pork, snails and fish and gents relish liquor locally prepared from jaggary. Tharus speak Bhojpuri and worship Hindu deities. Ramnavmi is their main festival. They also maintain socio-cultural relationship with the Tharus of Nepal. Their population is around 2.5 lakh.

Communities other than the tribes are called 'Bajiyar'. They are outsiders and involved in agriculture as well as small business in the villages.

#### **BHIMBANDH WILDLIFE SANCTUARY**

Bhimbandh Wildlife Sanctuary is located in the south west of Munger District. The forests cover an area of 681.99 km<sup>2</sup> on the hills and undulating tract of Kharagpur Hills. It is situated at a distance of 56 KM from southern border of Munger 20 km from Jamui Railway Station and 200 km from Patna Airport.

This forest are located in the famous Kharagpur hill range. Bhimbandh is situated south of river Ganges to the northern boundary of Chhotanagpur Plateau and west of Santhal Pargana. It is surrounded on all sides by non-forestry areas inhabited by dense population. In the valley portions and at the foothills are several hot springs of which the finest are at Bhimbandh, Sita Kund and Rishi Kund. All the hot springs maintain nearly almost same temperature round the year. Among them the Bhimbandh springs have the maximum temperature (52°C to 65°C). There are number of places of tourist interest nearby the Sanctuary like, Rishi Kund, Sita Kund, Ha-Ha Punch Kumari, Rameshwar Kund, Kharagpur Lake etc.

#### **FAUNA**

Tiger, Leopard, Peacock, Wild Bear, Rabbit, Monkey, Sahil Bear, Cheeta, Barking deer, Van Murgi, Nilgai, Python, Tiger, Newala, Goh, and Hyena are the major fauna of the Bhimbandh. Other fauna include the Jungle Cat, Fishing Cat, Leopard Cats and Hyaena. Small mammals include the rare Hispid Hare, Indian Gray Mongoose, Small Indian Mongooses, Large Indian Civet, Small Indian Civets, Bengal Fox, Golden Jackal, Sloth Bear, Chinese Pangolin, Indian Pangolins, Hog Badger, Chinese Ferret Badgers, and Particolored flying squirrels.

Crocodiles are found in Kharagpur lake and Kalidah near Rameshwar kund. Among snakes cobra and kraits are of common occurrence while python, Narokole, Bisako and Karmegh are occasionally seen.

Common bird species are Peafowl, Grey Partridges, Quail, Malabar, Pied Hornbill, Swallow, Nightjars, Drongee, Paradisefly, Kingfisher, Bulbul, Mainas, Pigeon, Wood Pigeon, Blue jay, Owl, Falcon, Kites, Eastern Imperial Eagle, Greater Spotted Eagle, White-tailed Eagle, Pallas's Fish Eagle, Grey-headed Fish Eagle, and the Lesser Kestrel and Vultures. Birds such as the Lesser White-fronted Goose, Ferruginous Duck, Baer's Pochard duck and Lesser Adjutant, Greater Adjutant, Black-necked Stork, and Asian Openbill stork migrate from Central Asia to the park during winter.

#### **FLORA**

There are two major biomes present in Bhimbandh, first is grassland biome and second is forest biome. The sanctuary area having mainly of sal forest, Bamboo forest, grass land and many small forests of many miscellaneous species of flora. The top canopy of Bhimbandh mainly consists *Shorea Robusta* (sal), *Diospyros melanoxylon* (kendu), *Boswellia serrata* (salai), *Terminalia tomentosa* (Asan), *Terminalia bellayocica* (Bahera), *Terminalia Arjuna* (Arjun), *Pterocarpus Marsupium* (Paisar). The top canopy of Bhimbandh mainly *Madhuca indica* (Mahua) and *Holarrhena antidysenterica*. Bhimbandh's ground Flora includes *Flemengia Chappar*, *Zizyphus Xylopyra*, climber flora include *Bauhinia Vahlia*, *Smilax Protifera*, and creepers flora includes *Butea Superba*, *Butea Parviflora*. Lying in the famous Kharagpur range, Bhimbandh Wildlife Sanctuary boasts of a very rich and varied fauna. In fact, the flora here is quite distinctive when compared with the other sanctuaries in Bihar. As you move across the sanctuary, you will find Sal, Kend, Semal, and creepers belonging to different classifications

#### **THE KANWAR LAKE BIRD SANCTUARY**

The Kanwar Taal or Kabar Taal Lake at Begusarai, Bihar, is Asia's largest freshwater oxbow lake. It is approximately three times the size of the Bharatpur Sanctuary. Ornithologist Salim Ali mentioned about 60 migratory birds that come all the way from Central Asia in winter and recorded around 106 species of resident birds. Even though Kanwar Lake Bird Sanctuary is less popular among tourists, it is a ideal destination for bird watching. There are around 106 species of birds at the Kanwar Lake. During winter, which is the best time to travel Kanwar Lake Bird Sanctuary, around 60 migratory birds come to the park from Central Asia.

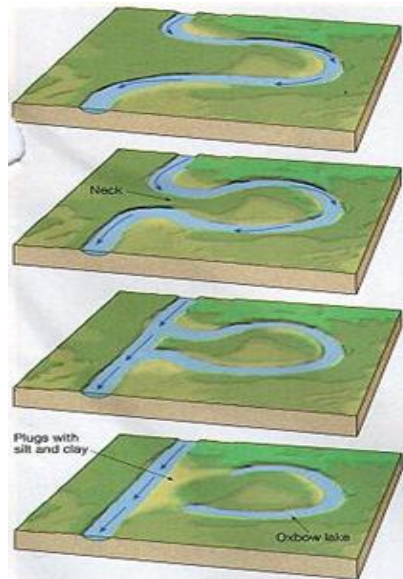
Since Kanwar Lake is one of the quietest bird sanctuary in India with pretty less tourist activity, the place is ideal for bird watching and photography.

At the Kanwar Lake Bird Sanctuary tourists will come across several species of birds that includes Oriental White-backed Vulture, Long-billed Vulture, Greater Adjutant, Greater Spotted Eagle, Lesser Kestrel, Sarus Crane, Darter Anhinga, Painted Stork and Black-bellied Tern.

#### **OXBOW LAKE**

An oxbow lake is a U-shaped body of water that forms when a wide meander from the main stem of a river is cut off, creating a free-standing body of water. This landform is so named for its distinctive curved shape, resembling the bow pin of an oxbow. In Australia, an oxbow lake is known as a billabong, from the indigenous language Wiradjuri. In south Texas, oxbows left by the Rio Grande River are called resacas.

FIG 1: A FORMATION OF OXBOW LAKE



### VIKRAMSHILA GANGETIC DOLPHIN SANCTUARY

Vikramshila gangetic Dolphin Sanctuary is located in Bhagalpur District of Bihar, India. The sanctuary is a 50 km stretch of the Ganges River from Sultanganj to Kahalgaon. Designated in 1991, it is the only protected area for the endangered Gangetic dolphins in Asia. Once found in abundance, only a few hundred remain, of which half are found here. The Gangetic dolphins have been declared as the National Aquatic Animal of India. This decision was taken in the first meeting of the National Ganga River Basin Authority (NGRBA) chaired by Prime Minister Dr. Manmohan Singh on Monday, 5 October 2009

### KAKOLAT WATERFALL

Kakolat waterfall a stunning little hidden wonder of nature, situated on the beautiful Kakolat hill, located on the border of Bihar and Jharkhand, just 33 km from Nawada. This is one of the most visited and renowned Bihar getaway, where tourists come from all over the state and adjoining areas to witness the sheer beauty of Mother Nature cascading marvelously. The Kakolat waterfall of Bihar cascades down from a height of between 150 to 160 feet and forms a natural reservoir at the base of the waterfall. Legends are also associated with the Kakolat waterfall such as, a Treta Yug king was cursed to take the shape of a python and live at the falls here, by a Hindu spiritualist. The place was then visited by the Pandavas during their exile and it was during that time that the python king got rid of the curse, and he proclaimed that any person who bathed in the waterfall would never be reborn as a snake.

Kakolat waterfall has become an increasingly popular tourist attraction in Bihar, where huge crowds can be seen during summers for weekend picnics. This waterfall also boasts a wide variety of watersports and fun in the water. Apart from its significance as a tourist destination, the Kakolat waterfall is also widely visited at the time when a big fair is held on an occasion of bishua or chait Sankranti. This is basically a religious event accompanied with a three day mela, where many devotees take their bath in the waterfall. The Kakolat waterfall has great historical and mythological significance. The waterfall is located near Govindpur police station, about 33 km away from Nawada, on Kakolat Hill. Below the falls there is a deep natural reservoir.

The fall is approximately 160 feet (49 m) in height. The scene is panoramic due to all-round green forest area. Kakolat Fall is a popular tourist spot in Bihar. During the summer, people from all over India come to the falls for picnics.

### CONCLUSION

The Bihar has tremendous potential of ecotourism and with proper organized planning and implementation, ecotourism can make a breakthrough for the conservation and economic development of the area. The Community Based Ecotourism (CBE) module can be implemented as the local people are aware and sensitive about the tourism ventures, thus they can be involved in planning and implementation of the ecotourism. Most villagers strongly feel that ecotourism should be encouraged and more and more eco-tours be promoted. While there is liking for tourists, there is strong disliking as well for the non-environmental tourist behaviours of contributing pollution. There is need for capacity building for providing them opportunities for starting business at small-scale level. The youths of the village are very much interested to be a part of ecotourism to act as tourist guides. Women are also interested to take up the ecotourism related activities. There is need to streamline the functioning of the village forest committee with a view to involve villagers in the development and management of the area. An integrated holistic plan for the community-based ecotourism should be prepared through the involvement of all stakeholders and implemented through the local people and a strategy for the sustainable ecotourism management should also be evolved for all such areas.

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## PROMOTING FINANCIAL INCLUSION IN RURAL AREAS THROUGH CO-OPERATIVE BANKS: WITH SPECIAL REFERENCE TO DCCB, PADERU AGENCY

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### ABSTRACT

*Financial inclusion is a very important initiative for the sustainable growth of a country. With a huge rural population, that is economically challenged, Government in India's has rolled out many initiatives like Rural Employment Guarantee Scheme, Sarva Shiksha Abhiyan (Education for all), Bharat Nirman Programme. India has been currently the second highest number of financially excluded households in the world. Dr. C. Rangarajan Committee Report viewed financial inclusion as a comprehensive and holistic process ensuring access to financial services and timely and adequate credit, particularly by vulnerable groups such as weaker sections and low income groups at an affordable cost. Financial inclusion should lead to financial security for the poor and the vulnerable. Financial inclusion is much more than "banking the unbanked." In India the basic concept of financial inclusion is having a saving or current account with any bank. The majority of people living in rural areas remain excluded from the purview of the financial institutions even after 67 years of independence. The financial inclusion in rural areas is necessary and profitable for banking sectors, the cooperatives have the widest network. It covers every state and union territory in India, with credit cooperatives forming almost 70% of all rural credit outlets. The Self Help Group (SHG) approach was introduced in 1992, to link poor people with bank credit. Under this programme, about 40 million families have been linked with banks upto March 2007 (NABARD). As a woman becomes more financially included, she gains power to use financial services to improve her life and that of her family. The researcher has studied the District Cooperative Central Banks (DCCBs), financial inclusion among the rural area of Paderu agency with the help of DCCB. Mainly the focus is on the financial inclusion programmes through Self Help Groups (SHGs) in rural areas, the problems faced by DCCB and reasons of financial exclusion of rural people.*

### KEYWORDS

Financial Inclusion, Financial exclusion, DCCB, SHGs, And Rural Areas.

### INTRODUCTION

The Government of India and the Reserve Bank of India have been making concerted efforts to promote financial inclusion as one of the important national objectives of the country. A state in which all people who can use them have access to a suite of quality financial services, provided at affordable prices, in a convenient manner, and with dignity for the clients. Financial services are delivered by a range of providers, most of them private, to a financially capable clientele. Financial inclusion broadens the resource base of the financial system by developing a culture of savings among large segment of rural population and plays its own role in the process of economic development. The financial inclusion in rural areas is necessary and profitable for banking sectors, the cooperatives have the widest network. It covers every state and union territory in India, with credit cooperatives forming almost 70% of all rural credit outlets. 51.4% of farmer households are financially excluded from both formal/ informal sources. Overall, 73% of farmer households have no access to formal sources of credit. In such a situation cooperative banks operate as a balancing center. At present there are several cooperative banks which are performing multipurpose functions of financial, administrative, supervisory and development in nature of expansion and development of cooperative credit system. . Today, 51 percent of adults worldwide have bank accounts. Financial inclusion should lead to financial security for the poor and the vulnerable.

### REVIEW OF LITERATURE

Narendra Modi (2014) launched Pradhan Mantri Jan Dhan *Yojana* wherein every household in rural India will have access to bank account and *Rupay debit card with Rs 1 lakh insurance cover*. At present, *nearly 60% of Indian population does not have access to formal banking service*. Bankers say that the scheme envisages that one individual from every household has a bank account by 2016. (91 review).

Dr. Dilip Ambarkhane (2013) studied the Cooperative banks have very good network in rural areas; moreover mostly they have local staff. Therefore they are better placed to understand and solve the problem of rural poverty by strengthening the supply side of Financial Inclusion. They can effectively contribute to improvement in demand side also. Cooperative due to their good rural network, local staff is in a better position to understand rural situation and the problems of poverty.

Reddy (2010) suggested a new approach to banks to reach wider population in rural areas by establishing mobile banks/representatives/agent who operate on commercial basis rather than just by SHGs. These agents/representatives work on commission basis and hence self-motivated and cost effective in assessing banks in service provision / deposit mobilization.

According to Ravichandran and Aikhatrhlam (2009), very few people have access to banking services. There are number of factors effecting access to financial services by weaker section of society in India. The lack of awareness, low incomes and assets, social exclusion, illiteracy are the barriers from demand side. Bank-SHG, bank – MFI, MFI-NBFC and bank-post office linkage models were discussed and raw models like rural students banking model, RBI-Education institute linkage models were proposed.

Rewa Misra (June 2008), observed that the Andhra Pradesh (AP) occupies a special place in India's microfinance map for this and many other reasons. With nearly 25% of the country's 2.2 million SHGs (every village now has SHGs in AP) and most of its successful microfinance institutions, AP has long been considered the hub of a number of institutional and product innovations in microfinance.

### FINANCIAL INCLUSION

The term financial inclusion refers to delivery of financial services at an affordable cost in a fair and transparent terms and conditions to vast sections of disadvantages, weaker and low income groups including house hold enterprise, small medium enterprise and traders. It is only enhances overall financial inclusion include micro credit, branch less banking, no-fills bank accounts, saving products, pension for old age, micro finance, Self Help Groups (SHGs), entrepreneurial credit etc. Thus, financial inclusion for equal opportunities to all section of people in country, inclusive growth, economic development, social development and business opportunity.

Reserve Bank of India's vision for 2020 is to open nearly 600 million new customers' accounts and service them through a variety of channels by leveraging on IT. However, illiteracy and the low income savings and lack of bank branches in rural areas continue to be a roadblock to financial inclusion in many states and there is inadequate legal and financial structure.

Financial Inclusion can be thought of in two ways. One is exclusion from the payments system – i.e. not having access to a bank account. The second type of exclusion is from formal credit markets requires the excluded to approach informal and exploitative markets. Access to formal banking services has been available through the use of intermediaries such as SHGs and micro finance Inclusions (MFIA). SHGs are usually groups of wound to get together and pool

their savings and give loans to members. Usually NGOs and NABARD promote and nurture these groups. The recovery experience has been very good from SHGs and there are currently 2.6 million SHGs linked to banks reaching almost 40 million households through its renders.

## TOOLS OF FINANCIAL INCLUSION AND THE METHODS TO ACHIEVE

To address the issue of financial exclusion in a holistic manner, it is essential to ensure that a range of financial services is available to every individual. These services are:

- No-frills banking account for making and receiving payments,
- Savings product suited to the pattern of cash flows of a poor household,
- Money transfer facilities
- Small loans and overdrafts for productive, personal and other purposes, and
- Micro-insurance (life and non-life)

## FINANCIAL INCLUSION WITH CO-OPERATIVE BANKING

Banking business has done wonders for the world economy. The simple looking method of accepting money deposits from savers and then lending the same money to borrowers, banking activity encourages the flow of money to productive use and investments. This in turn allows the economy to grow. The government of India started the cooperative movement of India in 1904. Then the government therefore decided to develop the cooperatives as the institutional agency to tackle the problem of rural indebtedness, which has become a curse for population. In such a situation cooperative banks operate as a balancing center. At present there are several cooperative banks which are performing multipurpose functions of financial, administrative, supervisory and development in nature of expansion and development of cooperative credit system.

Cooperative rural credit and banking sector is a century old institutional set-up now covering almost every village in India numbering about seven hundred thousand. In number, there are about 160 thousand cooperative credit and banking outlets in rural India mostly serving the agricultural sector providing credit for seasonal operations and for investments besides retailing farm inputs like seeds, fertilisers and pesticides. Agriculture is the mainstay of Indian rural economy on which depends almost 60% of the population for livelihood. However, contribution to overall GDP has been going down constantly and accounted for only 17% in 2008-09.

While a large section of the financially excluded population inhabits rural areas, financial exclusion is widespread in urban and semi-urban areas as well. Generally farmers, small vendors, agricultural and industrial labourers, people engaged in unorganized sectors, the unemployed, women, older and physically challenged people are the most commonly excluded segments. These segments are best addressed by the cooperative banks.

## OBJECTIVE OF THE STUDY

- To have a brief idea of Financial status of DCCB, Paderu from year 2003-04 to 2012-13
- To analyze the Deposits, loans and C/D Ratios, growth rate of SHGs, of DCCBs.
- To analysis the growth rate of SHGs Paderu in Visakhapatnam DCCB from the during period 2003-04 to 2012-13.

## METHODOLOGY OF STUDY

The study is mainly based on secondary data, which has been gathered from various annual reports of DCCBs, mainly from the last ten years reports. The secondary data is also collected from NABARD, RBI bulletins, Government of India reports etc...

### SAMPLE OF THE STUDY

This paper is an attempt to study the financial status of the DCCBs, Paderu. This bank was purposely selected for the study, keeping in view they role and involvement in shaping the economic condition, especially in Deposits, Credits, CD Ratios, growth rate of SHGs.

### DATA IN TOOLS

The present study is mainly based on secondary sources drawn from Central Co-Operative Bank Paderu (agency), papers, books and journals relating to Co-operative banking sector. Data were collected for period of ten years from 2003-04 to 2012-13. For analysis of the data, various statistical tools (Mean, S.D, C.V, growth rate) have been used to arrive at conclusion in a scientific way.

## DISCUSSION AND ANALYSIS

### ORIGIN AND GROWTH OF DCCB IN INDIA

The first D.C.C.B was registered in Uttar Pradesh in 1906 as a primary society. In Rajasthan, like the first D.C.C.B bank was started in 1910 at Ajmer. The period from 1906 to 1918 may be called the period of origin of the D.C.C banks in India. As in the period these banks came into be established in many parts of the country. The decade from 1919 to 1929, which was roughly the period between the end of the First World War and the onset of the world depression, was marked by the expansion of Co-operative banking system. The number of D.C.C banks went on increasing between 1919 and 1929. These banks increased from 233 in 1919-20 to 588 in 1929-30 while their membership increased from 1.22 lakhs to 1.91 lakhs. The total working capital moved from Rs 6.43 crore to Rs 30.90 crore. However during the period of depression in the thirties, there was a great setback in their working. There was a significant increase in the over dues of these banks. There membership both of the individuals and the societies has also declined. The membership both of the individuals declined from 0.90 lakhs in 1929-30 to 0.85 lakhs in 1936-37, while that of the societies from 1.01 lakhs to 0.90 lakhs. The number of these banks, however, increased from 588 in 1929-30 to 611 in 1936-37 because of the registration of new banking unions in the former princely states in Uttar Pradesh and Bihar.

### D.C.C.B IN ANDHRA PRADESH

The Co-operative credit and banking structure in Andhra Pradesh consist of two parts, one dealing with short – term and the other with long term credit. The farmer in Andhra Pradesh state is a type of pyramid or federal in character, based on a three-tier system with primary credit societies at the bottom, the District Central Co-operative Bank (D.C.C banks) Constituting the middle-tire and state Co-operative Bank covering the entire state at the apex level (APCOB).

The D.C.C banks hold a position of great importance as they form the back of the three-tire structure. They are the strongest units in the Co-operative credit and baking system. The D.C.C banks also play a vital role in the development of the Co-operative movement in the entire district. The Central Co-operative Banks finance PAC Banks from their own resources of share, reserves and deposits and form the credit limit sanctioned by the NABARD through the INSACB. The District Cooperative Central Banks (DCCBs) advance loans and financial assistance to all types of Co-operative functioning in their respective areas/circle.

### CO-OP BANKING AND FINANCIAL INCLUSION

For the financial inclusion of this group to be successful there is very little innovation that can be done in the office of the bank. But if the Bankers move in the field, they will be able to innovate products and services on the basis of observing clients, households, markets and workplaces to tailor the financial services to suit the needs of this segment. Thus to perform this challenging task of offering integrated financial services to the poor women, the Co-operative Banks are definitely more suited. The sense of co-operation is highly essential to harness the vast economic energy that is waiting to be unleashed in the poor women. Experiences world over in the Developing nations have only reconfirmed the need for co-operative banking to bring about inclusion of this segment in the mainstream economy. Again world over poor women have proved to be reliable borrowers and borrowers who have the family interest in mind.

### DCCB – PADERU

DCCB, Paderu branch was established 1987 with head quarters at Visakhapatnam. The branch having 10 PACs (Primary, Agriculture Co-operative Societies), i.e. Ananthagiri, Araku, Chintapalli, GK Veedhi, G.Madugula, Gontaseema, Hukumpeta, Munchingput, Paderu & Pedabayalu. VBI Bank is lead bank of Paderu DCCB.

Total Ten Mandals are covered by DCCB, Paderu Branch. As on March, 2013 the total deposits of DCCB, Paderu branch's amount of Rs.153.20 lakhs and the total loans outstanding of amount Rs.582.36 lakhs. The DCCB Paderu branch's aggregate CD Ratio is 380.13.

This DCCB collected by three categories of deposits, which are individuals, institutional and societies deposits. And also loans issued these three categories. The Paderu DCCB branch having mainly infrastructure and security problems.

**TABLE 1: DEPOSITS AND LOANS POSITION OF DCCB, PADERU (Amount in Rupees)**

Financial Years	Total Deposits	Growth rate of Deposits	Total Loans	Growth rate of Loans	C.D. Ratio
2003-04	7595773.64	---	61021233.09	---	803.35
2004-05	6548723.46	-13.78	60085069.02	-1.53	917.50
2005-06	5502735.52	-19.01	61642692.10	2.59	1120.21
2006-07	5443596.66	-1.07	61465415.31	-0.29	1129.13
2007-08	5188697.39	-4.68	60829728.31	-1.03	1172.35
2008-09	12807121.86	146.83	29850267.77	-50.93	233.07
2009-10	13234145.30	3.33	31763105.50	6.41	240.00
2010-11	14391511.16	8.74	41327591.50	30.11	287.17
2011-12	14416282.88	0.17	48485364.29	17.32	336.32
2012-13	15320950.26	6.27	58236499.29	20.11	380.11
Mean	10044953.81	126.8	51470696.61	2.50	661.9
S.D	3988608.8	46.77	463378894	21.41	307.93

Source: Annual reports of DCCBs

Table 1 shows the deposits collecting by DCCB, Paderu during 2003-04 to 2012-03. During the year 2003-04 the Deposits are registered Rs.7595773.94 Lakhs it has been increased to Rs. 15320950.26 Lakhs in 2012-13. The mobilization of deposits have been increased gradually during the study period, and the average deposits mobilized by bank is 10044953.81. The deposits trend provided shows a fluctuating in the during period of study. The highest growth rate of deposits is 146.83 was recorded with 12807121.86 during the year 2008-09.

Whereas credit deployment of DCCBs in Visakhapatnam Paderu Rs.61021233.09 lakhs in 2003-04, it has been decreased of 58236499.29 lakhs in the year 2012-13. The average credit issued by the banks is Rs. 51470696.61 lakhs. It can also be seen from the table that the amount of loans have gone through various ups and down during the last ten years i.e. 2003-04 to 2012-13. The highest negative growth rate of -50.93 was recorded with 298850267.77 during the year 2008-09. These banks are Service oriented institutions which supply Credits to industry, mainly agriculture in the form of loans and advances for their smooth functioning.

While, the proportion of the Credit deployed to the deposit mobilized, popularly known as C/D Ration, is one of the Parameter to assess the performance of a bank. The C/D Ratio of a bank in general, indicates the extent to which the depositor's money is invested in credit. The Credit Deposit Ratio of DCCBs from 2003 to 2013 is shown a fluctuating trend. The highest C/D Ratio of the banks estimated with 1172.35% in 2007-08 and the lowest C/D Ratio % is recorded in the year 2008-09. The S.D is 307.93 which is very less it indicates high degree of uniformity of observations as well as homogeneity of the series.

#### SELF HELP GROUPS (SHGs)

India's microfinance industry has been a topic of government policy since the 1960s. After the failure of cooperatives that facilitated extending subsidized credit to villagers, the government focused more on the nationalization of banks from 1960 to 1990 and established the Regional Rural Banks and apex institutions such as the National Bank for Agriculture and Rural Development (NABARD). From 1990 to 2000, the NABARD initiated the Self-Help Group Bank Linkage Programme to connect informal women's groups to formal banks. The program helped the banks boost outreach to the poor, and credit was extended significantly. Microfinance through Self Help Groups (SHGs) has become an important vehicle to meet the savings and credit needs of the poor, especially women in rural areas.

#### • WOMEN- AN IMPORTANT SEGMENT FOR FINANCIAL INCLUSION

The very fact that almost 50% of the world (49.66%) and Indian (48.45%) population comprises of women, it becomes imperative to financially empower women so as to enable them to make meaningful contributions towards the development of the economy. The problem of financial empowerment becomes even graver when it comes to poor women which again are a sizeable population in India as well as in the other Developing nations. No Developing nation can actually think of progressing economically by excluding its women population. To add to the woes the socio-economic environment of such countries has always been causing great impediments to involving the women in economic activities.

#### • SHGs - COOPERATIVE BANK LINKAGE

The growth of SHG linkage across all banks has not only been dramatic in the last four or five years, but has also been remarkably uneven. The better-off states, mainly in the South, have dominated the linkage programme, while the states in the poorer North and East of India, where it is so much more needed in the struggle against poverty, have lagged behind. The same weaknesses that constrain development in general seem to have constrained SHG linkage too.

There are some States where the overall SHG linkage is poor, when related to the total population, or to the rural poor population, but where the co-operative banks have performed relatively well. Thus the performance of the DCCBs varies widely from state to state. In order to target promotional resources effectively, it is necessary to search for common features in those DCCBs which are particularly successful in SHG linkage. Banks, which share these features but are not successful, may be the strongest candidates for assistance to improve their position.

#### GROWTH PERFORMANCE OF SHGS - DCCB PADERU

**TABLE 2: PROGRESS OF SELF HELP GROUPS IN DCCB, PADERU (Amount in Rupees)**

Financial Years	No. of SHGs	Amount	Growth rate amount of SHGs
2003-04	115	518961.00	--
2004-05	135	570357.00	9.90
2005-06	208	2076218.00	264.00
2006-07	256	1814748.00	87.41
2007-08	256	1291610.00	-12.59
2008-09	143	1189320.00	-7.92
2009-10	105	1356545.00	14.06
2010-11	94	1046911.00	-22.82
2011-12	85	1103252.79	5.38
2012-13	85	1169507.79	6.00
Mean	148.2	1166836.5	40.29
S.D	65.86	883719.41	85.22

Source: Annual reports of DCCBs

It is evident from the above table which reveals the progress of SHGs in DCCB, Paderu that the No. of SHGs accounts have started at 115 accounts with an amount of Rs. 518961 during the year 2003-04 and have gone up to as high as 256 accounts with Rs. 1814748.00 with growth rate of SHGs amount is 87.41

during the year 2006-07 and has fallen to as low as 85 accounts with Rs. 1169507.79 and a growth rate of 6.00 during the year 2012-13 which happen to be a notable event.

The highest growth rate of the SHGs estimated with 264.00 in 2005-06 and the lowest growth rate -7.92 is recorded in the year 2008-09. The S.D is 85.22 which is it indicates low degree of uniformity of observations as well as heterogeneity of the series.

### SUGGESTIONS AND RECOMMENDATIONS

- It was clear from the study that there has been a decrease in the deposits in the bank which is evident from the table no 1. So in order to raise the deposits of the bank it has to come up with attractive scheme and proper communication of that schemes should be done so that the people come to know about it and also provision should be made for opening different types of accounts by the deposits.
- The loan operation of the DCCB, Paderu branch did not progress in an appreciable manner. For this purpose, this branch should come out of the traditional lending operations, i.e., Gold loans operation, Agricultural loan operations etc., and should find new avenue for investment.
- The branch should reorient their loan pattern system. Loans should be given in installments and there should be a proper linkage between disbursement and repayment of loans with sowing and harvesting seasons.
- In order to improve rural inclusion through different bankable services like low cost loans to BPL peoples, they can provide micro-insurance along with the bank account which increase the willingness of using bank services by the customers.
- Wide publicity and strictly implementing the concept of Financial Literacy and Credit counseling to educate the public in proper utilization of financial services offered by the DCCB, Paderu.

### CONCLUSION

The financial performance of the District Central Co-operative banks in Visakhapatnam, paderu is analyzed using different statistical techniques. From the above analysis, it is concluded that the growth of DCCBs and SHGs have negative trend up to certain period later there is negligible positive. The cooperative banks have been maintaining on an average 78.15% of C/D ratio. The highest growth rate of the SHGs estimated with 264.00 in 2005-06 and the lowest growth rate -7.92 is recorded in the year 2008-09. The SHGs groups slowly fall down during the period. It is Suggested that government should formulate specific policies and they should be implemented for the upliftment of District Central Cooperative Banks in Visakhapatnam DCCB particular rural areas. DCCBs should try to upgrade technology and should formulate customer friendly policies to face competition with commercial banks.

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**ECONOMIC IMPACT OF TOURISM ON RESIDENTS OF JAMMU AND KASHMIR STATE**

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**ABSTRACT**

*Tourism is one of the most important sectors in the world economy. It is now considered as an efficient tool for promoting economic growth of the host country. Tourism is fastest and growing industry in the India, which is effect on the economy of destination. Tourism alters the economic structure of a destination. Tourists spend their money on a wide variety of goods and services and related tourism products. Tourism is encouraged to the local people due to ability to generate employment in hotels, resorts, transport, etc. Also change their lifestyle. The present paper is based on primary data which is collected through intensive field work and assess the impacts of tourism on the residents of the state. Chi square method is used for the measuring the attitude of the residents for better tourism development in Jammu and Kashmir. It is found that, the overall impact is positive as increases total income of residents, generate employment and tax revenue and infrastructural facilities need to be improved.*

**KEYWORDS**

Co- integration, Economy, Tourism, development, infrastructure, employment, Tourism, Jammu and Kashmir.

**INTRODUCTION**

The concept of tourism has been defined in many ways and there is no agreement on the definition of tourism (Amelung, et al., 1999, p.4). According to United Nations World Tourism Organisation (UNWTO), tourism is defined as “an activity of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited” (UNWTO, 2001). It refers to all activities of visitors, including both “tourists” (overnight visitors) and “same day visitors”. Vaughan *et al.*, 2000) that completes the total economic impact of tourism. As repercussion effects of tourism are being realized by nations, it is now believed to stimulate the economic progress of developing economies and its importance in gaining widespread recognition. Tourism industry has become one of the most vital sectors, drivers and/or engines of growth and development for economy because of its competitive advantages and potentiality. The tourism industry not only creates considerable high multiplier effects but also enhances the inter-sectorial linkages in the economy. Through inter-sectorial linkages, impact of international tourist expenditure affects almost all sectors of an economy beside direct tourism related sectors. (Mazumder *et al.*, 2011). Tourism is the leading source of foreign exchange in at least one of three developing countries that have made it a priority sector, and this holds especially for small islands (see Durbarry (2004) In fact, there are several examples of small islands that depend heavily on international tourism revenue and where the tourism sector has received strong support from the government (see Louca, 2006).

**PROFILE OF THE AREA**

The total population of Jammu and Kashmir is 12,548,926 (Census of India, 2011) with a sex ratio of 883 females per 1000 males. The work participation rate is quite low i.e. 37 percent indicating high dependent population in the state. About three-fourth population of the state live in rural area. Among the working population, cultivators and agriculture laborers' comprise about 50 percent of the total working population. The main crops in the state are saffron, almond and walnut. Natural honey too, is a produce that is available in bulk in the state.

**METHODOLOGY**

The methodology of the present study is based on a sound research design which is broadly consisted of primary as well as secondary data collection, followed by data processing and report writing. The primary data is collected from the following stakeholders in the tourism set-up:

- Officials / Staff of hotels.
- Visiting tourists in the vicinity both domestic and foreign.
- Local inhabitants / Shopkeepers / Tourist Guides.
- Artisans, Craftsmen.
- Travel Agents / Tour Operators.
- Other related agencies and persons.

The secondary data is collected from various sources, primarily

- Jammu and Kashmir Tourism Development Corporation.
- Tourist Reception Centers.
- Directorate of Tourism, Govt. of J & K.
- State Directorate of Economics and Statistics.
- Census Reports.

**OBJECTIVES**

- To examine the facilities provided by the tourists.
- To assess the economic impact on local people of the state.
- To analysis the income effect of tourism on the state's economy.

**ECONOMIC IMPACT OF TOURISM**

Copper and et al (1999), the economic impact of tourism on a host economy is generally positive but also carries with it some negative aspects. The literature is biased towards the positive aspects of economic impacts. It is important to establish how significant tourism spending is to an economy because this allows policy makers and planners to determine dependency and to develop strategies for the future.

**PERCEPTION OF RESIDENTS RESPONSE TO ECONOMIC IMPACT OF TOURISM AT ELEPHANTA CAVES**

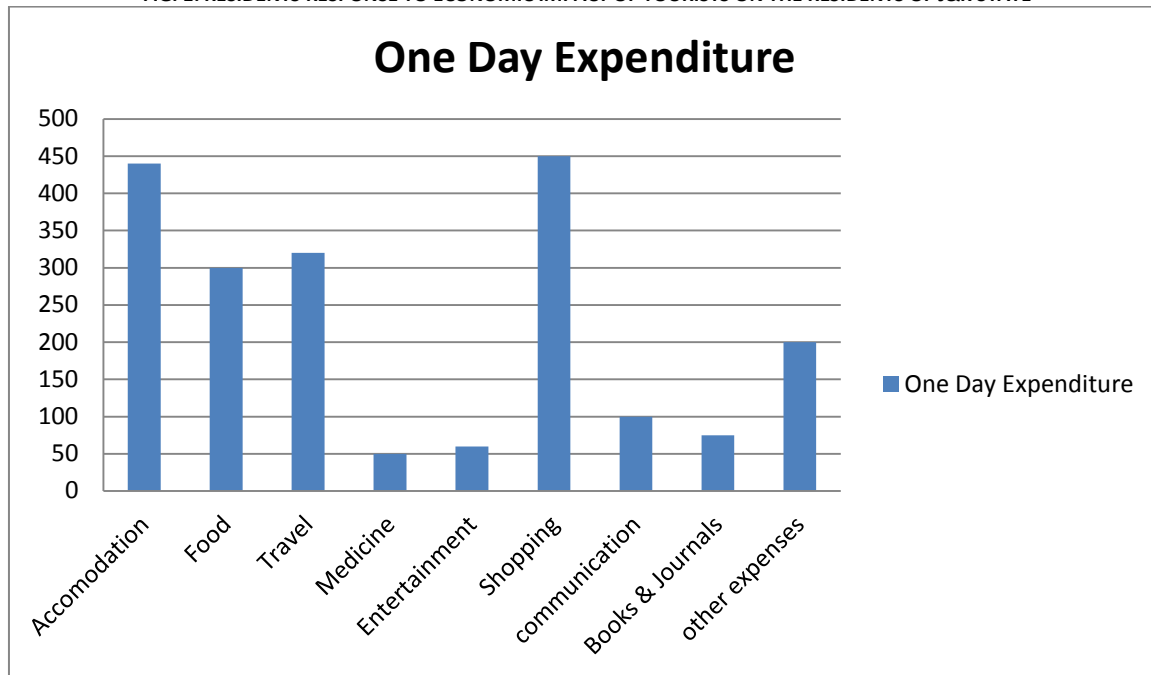
Tourism has major effect on the local economy of destination. Tourism brings foreign earnings, tax revenue and income of local people, which is beneficial for the development of tourism in the state. The economic impacts of tourism more is known about the economic benefits of tourism than the associated costs. Tourism can create employment opportunities, earn foreign exchange, produce return on investment for emerging economics, bring technology and improve

standard of living. Tourism can also help to generate jobs and increase revenue to local people and shopping facilities. Tourism can cause major effect on economic of destination area for price of land to rise rapidly.

**ECONOMIC IMPACT INDICATORS**

Increase the income of residents, opportunity for shopping, generates jobs, demand for female labour, increase in general prices of goods and services increased the number of hotels / resorts and commercial view of local people are the few indicators that indicate the economic impact of tourists. The objective of tourism development programme is to encourage tourists to spend more money in the region. Figure 1 gives details of expenditure of tourists.

FIG. 1: RESIDENTS RESPONSE TO ECONOMIC IMPACT OF TOURISTS ON THE RESIDENTS OF J&K STATE



Source: Primary Survey, 2013, Compiled by Author.

It is observed that majority of young tourists like to spend on accomodation during their tour of rupees 440/day. 300 rupees were spent on food related item per day by a tourist in an average. 320 rupees were also spent by a tourist on travel per day. Daily spending of tourist on medicine is rupees 50/day. Again they spent Rs. 60 daily in their tour on entertainment, and 450 rupees were spent on shopping by a tourist in the Jammu and Kashmir State, rupees 100 and 75 were spent on communication and book related items respectively, rest 200 rupees/day were also spent on other items in their tour in the region.

**TESTING OF HYPOTHESIS**

$H_0$ = there is no difference between tourists expenditures in tourist/non tourist season

$H_1$ = there is difference between tourists expenditures in tourist/non tourist season

$$\chi^2 = \sum (O-E)^2/E$$

$$\chi^2 = 77.84$$

$$d.f. = n-1 = 9-1 = 8$$

From the table value  $\chi^2_{\alpha}(0.05) = 15.507$

Since the calculated value of (chi square)  $\chi^2$  is greater than the tabulated value of  $\chi^2$  at 5% level of significance for (8) d.f. So we reject our null hypothesis at 5% level of significance and conclude that there is difference between tourist expenditures in tourist/non tourist season.

**CONCLUSION**

The research study finds that tourism is playing an important role in the economic development of Jammu and Kashmir. Development of tourism is now accepted everywhere in the world as one of the major means of developing the economy of the country. Studies and researches, both academic and practical, on tourism development and its manifold impacts have now become highly significant in developed as well as developing countries. This is particularly true in the case of Jammu and Kashmir, where industrial development is low. The only sector in the present situation where Kashmir can rely upon with confidence is the development of tourism. Indeed Kashmir has created a brand name in tourism "Paradise on the earth". The significant impact of tourism on Jammu and Kashmir economy justifies the necessity of Public intervention aimed, on one hand, at promoting and increasing tourism demand and on the other hand, providing and fostering the development of tourism supply.

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**A CONCEPTUAL PAPER ON CROWDFUNDING WITH REFERENCE TO ENTREPRENEURS AND INVESTORS IN INDIA**

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**ABSTRACT**

Today we live in hyper connected where era, where social networking plays very important role even in business. Many a time, raising funds from traditional sources becomes very difficult for the entrepreneurs and hence crowd funding is the best option for small and new start ups. The paper basically focuses on the conceptual side of the concept from the view point of entrepreneurs and investors in India based on the secondary data. With the increasing usage of internet, crowd funding will be the one of the best option to raise funds.

**KEYWORDS**

Crowd funding, investors, least cost.

**INTRODUCTION**

The Indian entrepreneurs are ready to float their new idea in the market but unfortunately they don't have money for the same. The lack funds lead no business. Generally entrepreneur gets funds from the venture capitalist, angel investors, or banks for starting up their business. To get funds from these, the entrepreneur has to prepare the budget including the data related to market demand, revenue and expenditure for the minimum periods of five years and this paper work must be done in such a way that it attracts the investors for funding the particular project. Many a times entrepreneurs are not good at such kind of paper work and could not get funds from these investors. Crowd funding is basically an easy way to raise funds from investors for small business or start up entrepreneurs.

Today we live in a hyper connected era of digital revolution. The social media users are increasing day by day and entrepreneurs wants to take an advantage of advance technology in obtaining the main factors - labour, capital and talent. The entrepreneurs want their project to be successful by obtaining capital from the use of social media. The entrepreneurs want to use the social networking websites as a platform for raising the funds from a crowd for a specific project. This digital era has lead to evolution of crowdfunding and crowd sourcing. However, involving this crowd requires changes in the policies and mindset. Crowdfunding markets have just appeared as an alternative for obtaining capital to support new ventures. This paper will focus on crowd funding as a source of capital from the view point of entrepreneurs as well as from the view point of investors and of course the regulators.

**OBJECTIVES**

1. To understand about crowdfunding scenario in India
2. To identify the advantages and disadvantages
3. Legal issues related to crowd funding
4. Issues related to investor protection
5. Risk associated with crowd funding

**RESEARCH METHODOLOGY**

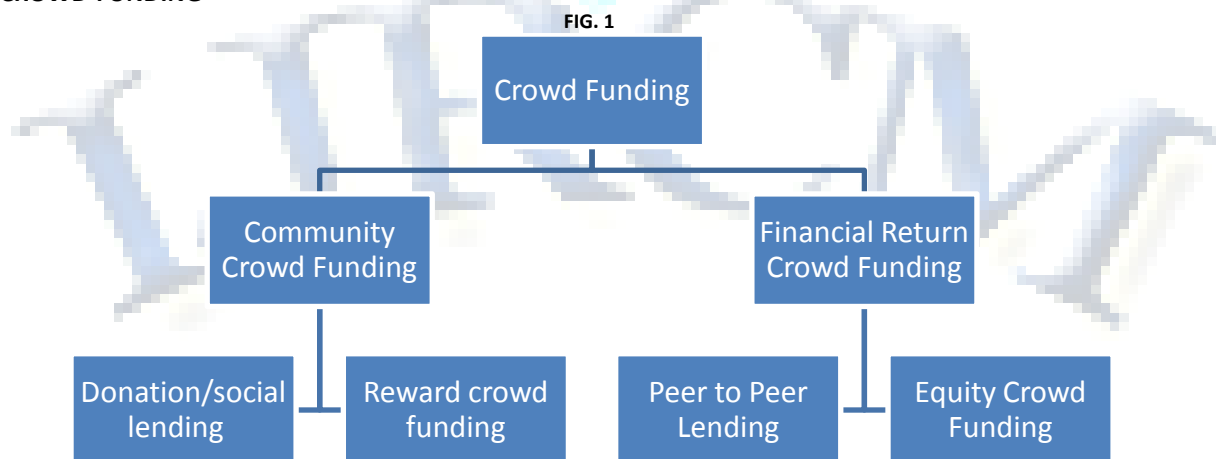
The research is based on secondary data which has been collected from different websites and journals and it is descriptive in nature.

**WHAT IS CROWDFUNDING?**

Crowd funding is an alternative method of raising small amount of funds from multiple investors through a web based platform or social networking sites for a particular project, business venture or social cause.

Crowdfunding model involves three parties: the project initiator who proposes idea, individuals who supports the projects and provide fund, the 'platform' that brings party together to launch the project.

**TYPES OF CROWD-FUNDING**



(Source: IOSCO staff working paper)

Donation crowd funding is raising funds for some social, artistic or charitable purpose and not in exchange of any tangible value. For example: bitgiving, Kickstarter, Indiegogo etc are platform for raising funds for social purpose.

Reward crowd funding is similar to donation but reward crowd funding offers some reward in form of product or membership. The websites which supports donation crowd funding offers reward crowd funding also.

In Peer to Peer lending, an online platform matches borrower and lender in order to provide non secure loan and interest rate is fixed by an online platform.

In equity crowd funding, equity shares of the companies are issued to the lenders. Generally, the start ups will raise funds by this method and they will advertise online by crowd funding platform.

## HISTORY OF CROWD FUNDING

The emergence of crowd funding activities could be traced out from 17<sup>th</sup> centuries. The Irish Loan Funds were created by Jonathan Swift for low income families who had no credit facilities and little collateral but could still be considered creditworthy. Thus, this fund was used by small businessman and farmers to push up their business.

By 1800, more than 300 programs were loaning small amount of funds for short period and 20% of households were using this in Ireland.

In 1976, the Noble Prize winner, Dr. Mohammad Yunus, launched programme to provide banking opportunity low income residents in Bangladesh. Initial loan of \$27 to 42 women was given and in five years, program has 30,000 members. In 1983, the said program was transformed to Grameen Bank. The bank now has more than 8 million borrowers, with 97% of the money given to women operated business.

In 1997, the U.S. tours of the British rock band Marillion was funded by their US fan base by raising \$60,000 themselves online to give to the band.

In 2000, the 'aristShare', the first documented crowdfunding site for music was launched. In 2005, 'Kiva' gave, individual the chance to provide small loans to entrepreneurs in poor areas around the world. In 2006, Prosper, the first peer to peer lending platform was launched. In 2006, Michael Sullivan, founder of 'FundVlog', coined the term 'crowdfunding'.

In 2008, 'indiegogo' enabled the people to donate without middleman and in 'peerbackers' came with financial return crowdfunding. In 2011, the U.S. president Obama unveils the 'Startup America Initiative' and in 2012 the first equity crowdfunding platform was launched named, 'Fundable' in conjunction with the JOBS Act.

## REVIEW OF LITERATURE

Quing Guo (2010): 'The Practical use of Crowd funding: Two cases illustration' focuses on analyzing the application of crowd funding by studying two prime movers in the industry. According to the author, Kickstarter and IndieGoGo experienced an increasing growth. Further, study gives an idea about the views of platform creator and investors of two illustrated cases.

Ordanini Andrea, Lucia Miceli, Marta Pizzetti, & A.Parasurman (2011): The authors have considered three crowdfunding cases viz. Sellaband in music business, Trampoline in financial services and Kapipal in non profit service. The research basically focuses on two question - (i) how and why do consumers turn into crowdfunding participant? (ii) how and why do service provider set up crowdfunding initiative?

Hemer Joachim (2011) : 'A snapshot on crowd funding- working paper' analyses the different crowdfunding initiatives, investors and success rate of projects. The paper analyses the success rate of the projects initiated by crowd funding. It also enumerates the characteristics, advantages and risk factors associated with crowdfunding.

Agrawal Ajay & Avi Goldfarb (2011): 'The Geography of crowdfunding' analyses about the geographic territory of crowdfunding. Apparently, there is no geographic boundary for crowdfunding as fund is raised online through internet but the researchers have concluded that the local investors are motivated early to invest in the project initiated by the person of their territory compare to other investors. Thus the geographic limit of crowd funding is personal connection of an investor to the entrepreneur.

Ethan Mollic (2013): In the paper titled 'The dynamics of crowdfunding: An exploratory study' the author has described the underlying dynamics of success and failure among crowd funded ventures. The quality of the project and personal connections are the main determinants for the success of crowd funded project.

S. Nagalakshmi & U. Gana Cecilia (2014) : The paper focuses on the emerging trends in crowd funding in India and theoretical aspect of the same.

From the above detailed reviewed literature it was found that very few researchers have focused the crowdfunding in India.

## ADVANTAGES OF CROWD FUNDING

It is an alternative to raise funds from the traditional way at a lesser cost compare to public issue of securities. Thus, crowdfunding provides access to capital for startups and expansion of project.

- ❖ Investors will invest in the project only when the idea is different and unique. So, crowdfunding provides proof for validity of an idea.
- ❖ It is easier to raise funds from crowds funding than traditional ways like bank loan. The process is very simple that the entrepreneur has to create campaign for his project which will be displayed on crowd funding platform thus it does not require do any paper work and it does not consume too much time.
- ❖ It provides opportunity for pre-selling the product or concept which is not yet launched in the market and entrepreneur can have reactions of the users before actually launching it in the market.

## DISADVANTAGES OF CROWD FUNDING

- ❖ The biggest disadvantage of crowdfunding is stealing of an idea. While creating the campaign for crowd funding project the entrepreneur has to provide information in such a way that it attracts potential investors but does not lead to giving information to competitors and thus it becomes difficult.
- ❖ The venture capitalist or angle investors will not be ready to invest in such project in future because of so many small contributors and hence it creates negative impression for the future finance options.
- ❖ In crowdfunding, investors generally expects quick and timely return which creates unnecessary pressure on the entrepreneur.

## LEGAL ISSUES FOR CROWD FUNDING IN INDIA

- ❖ One of the biggest issue is how should crowd funding be registered in India. The firm which raises funds from IPO or FPO are registered with SEBI and stock exchange also. The firms are required to fulfill the SEBI Act, Companies Act and rules of the stock exchange. No such kind of procedure could be made possible for the crowd funding.
- ❖ In the entire process of crowd funding internet plays crucial role so another problem is related to safety and surety of the data.
- ❖ It may lead to increase in willful defaulters. The entrepreneurs may collect fund from crowd funding and may involve in willful defaulter.
- ❖ Whether the crowd funding platform be registered as a broker?
- ❖ The investor protection will be crucial as there so many small investors contributing to large projects.
- ❖ Basic disclosure requirements for the crowd funding platform and the project
- ❖ Taxations issues related to crowd funding

## CROWD FUNDING SCENARIO IN INDIA

Today's India has become the global popular destination for investments by moving on off the license tradition of past. Every month one new crowd funding website is launched in India shows the future prospects of the industry. Recently, Indian Boxer, Mary Kom, has announced about rising of funds through crowdfunding for creating Boxing academy in Imphal. Thus the crowdfunding scenario in India has completely changed.

At present, community crowd funding is allowed in India. The equity or debt based crowd funding is funding requires to ensure the protection of retail investors. In June 2014, SEBI has issued consultation paper on crowd funding in India. SEBI may allow equity/debt crowd funding with following proposed rules.

- ❖ Crowdfunding platform can be provided by only SEBI registered entities, while companies can raise up to Rs.10 crore in a year with maximum 200 individual investors

- ❖ Only accredited investors shall be allowed to participate in crowdfunding activities which include institutional investors, HNIs, and retail investors advised by portfolio managers or investment advisors.
- ❖ Retail investors can invest maximum up to Rs. 60000 or 10% of their net worth
- ❖ A company being in existence for four or more years or companies listed on stock exchange shall not be permissible to raise funds from this route
- ❖ Only the entities which are not associated with business group having turnover of more than Rs.25 crore shall be allowed to raise funds from crowdfunding
- ❖ The entities engaged in real estate or financial sector shall be barred

### CONCLUSION

Crowdfunding is very good concept to implement but the problem lies with protection of investors and to make rules accordingly which helps entrepreneurs to raise funds easily with least cost. The future of this industry will be tremendous in India as there is no geographic barrier for investors as well as entrepreneurs.

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