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## HEALTH INSURANCE SCHEME (AAWAZ) FOR DOMESTIC MIGRANT LABOURERS IN KERALA OPPORTUNITIES AND CHALLENGES

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#### **ABSTRACT**

'Aawaz' is a health insurance scheme planned to implement in Kerala in the year 2017 for the 4000000 domestic migrant labourers who have been working in different sectors in the State. It aims at providing health care assistance and free medical facilities to each registered worker. The initiative plans to collect information about the domestic migrant workers. Under the scheme titled 'aawaz', an identity card shall be provided to each migrant worker who gets registered. This paper is an effort towards studying the opportunities and challenges of the 'aawaz' scheme and the aim, benefits, the way how it will be implemented. The study uses both primary and secondary data. The language barrier makes the domestic migrant labourers vulnerable and prevents them from accessing health care and protecting their rights. The 'Interstate Migrant Workers Welfare Scheme' launched by the State government in the year 2010 has not made much of an impact. The enrolment of the scheme is only 54350 as on 31st December 2016. In this context the study is being conducted.

#### **KEYWORDS**

'aawaz' health insurance scheme, challenges, domestic migrant labourers, opportunities.

#### INTRODUCTION

igration is the livelihood and survival strategy of many persons through well targeted remittance (Justin Paul, 2005). There are nearly 400000 domestic migrant labourers working in the Kerala state. They are mostly from West Bengal, Orissa, Bihar and Assam. The majorities only speaks their native languages and are unable to effectively communicate to the local people and the Government official. It is very difficult to them to make use of the various welfare scheme launched by the state Government. The Kerala Government introduced a welfare scheme for the migrant workers on May 1st of 2010. Under the scheme titled 'Inter State Migrant Workers Welfare Scheme', a membership card is issued to each migrant worker who gets enrolled. Each registered worker would get up to Rs. 25,000 as healthcare assistance for in-patient care in empanelled hospitals in case of accidents or chronic diseases. However, the worker is eligible to get only Rs. 100 per day and the maximum limit fixed per episode of disease is Rs. 2000. If the labourers become incapable of undertaking jobs for more than six months due to accidents or chronic diseases, they are eligible to get a special assistance of up to Rs. 25000. The labourers who have registered in the scheme continuously for three years are also eligible to enjoy a retirement benefit of Rs. 1000 per year subject to a minimum of Rs. 10,000 and a maximum of Rs. 25,000. Financial assistance to the tune of Rs. 50,000 in the event of death in accident at work site and Rs. 10,000 in the event of natural death is provided to the dependents of the migrant labourers. An additional assistance of Rs. 5000 to Rs. 15000 (depending on the distance to the state of origin) is also given for transporting the body to their native places. There is also a provision for assistance of Rs. 3000 per annum for the education of the children of migrant labourers who are studying beyond Class X in Kerala. The scheme is implemented through the Kerala Construction Workers Welfare Fund Board which is also running a scheme for the welfare of the construction workers. The migrant worker will be required to pay an annual contribution of just Rs. 30. The Welfare Board, which is financed mainly from the cess on construction activities, will credit twice that amount in her/his account. The government will provide the rest of the money needed for the welfare measures. The welfare fund package is in addition to the assistance available to inter-State migrant workers under the Inter State Workmen (Regulation of Employment and Conditions of Service) Act. 1979 and the rules framed under it. The welfare fund scheme would be monitored by an advisory committee chaired by the State Labour Commissioner and comprising representatives of various trade unions (Government of Kerala, 2010). Though the scheme aims to enroll half of the migrant labourers, enrolment with the scheme is only below 2 percent of the estimated labour force.

In this context the Labour and Skills Department of Kerala have issued an order on 27<sup>th</sup> October 2016 regarding the objective and aim of the health insurance scheme 'aawaz' for the domestic migrant labourers who have been working the state in various sectors. This study is about opportunities and challenges of the 'aawaz' scheme in the circumstance of awareness towards 'Interstate Migrant Workers Welfare Scheme'.

#### INTERSTATE MIGRANT LABOURERS/ DOMESTIC MIGRANT LABOURERS (DML)

For this study "Interstate Migrant Labourers/Domestic Migrant Labourers (DML)" means in-migrants from other states, flocking in Kerala for different types of activities involving manual labour, particularly in construction sector. They are floating or circulating from one place to another.

#### **REVIEW OF LITERATURE**

Kumar (2011) studies the vulnerability of the migrants and the responsiveness of the state in case of the unskilled migrant workers in Kerala, India i.e. in a subnational context. The study is based on an in depth interview with migrant workers and various stake holders. It broadly speaks about the welfare scheme introduced by the Kerala Government for the interstate migrant workmen who have been migrated to Kerala from various parts of India. The study points out that there is a need to form a separate welfare board to the interstate migrant labourers for the effective functioning and implementation of welfare activities.

D Narayana (2013) has suggested in their study about the domestic migrant labourers in Kerala that Government of Kerala design a Kerala State Insurance Scheme specifically targetig DML(Domestic Migrant Labourers) most of whom may be above poverty line. The study suggest that scheme may be on contributory basis and with subsidies from Government of Kerala. It shall be contributed by both Government of Inida (and the Governments of state origin that are willing to do so also) may also be encouraged to contribute to the scheme. The Health Schemes may be limited to those who register as per the recommendation.

Ravi Srivastava (2003) reports that labourers working in harsh circumstances and living in un hygienic conditions suffer from serious occupational health problem and are vulnerable to disease. As the employer does not follow safety measures, accidents are quiet frequent. Migrants cannot access various health and family care programme due to their temporary status. Free public health care facilities and programmes are not accessible to them.

#### **NEED AND IMPORTANCE OF THE STUDY**

The migrant labourers are most vulnerable group due to language barrier, socio-cultural difference and their relative backwardness. In Kerala most of the manual works are being carried out by these Domestic Migrant Labourers so it is essential to provide required welfare net. Kerala state being a front runner in planning and implementing various welfare schemes through various welfare boards, it is essential to ensure that its benefit will reach to the target group. This study focuses on the opportunities and challenges of the 'aawaz' scheme and the aim, benefits, the way how it is going to implement.

#### STATEMENT OF THE PROBLEM

The language barrier, educational backwardness, socio-cultural difference between state of origin and Kerala and the large distance to travel to reach Kerala make the interstate migration similar to International migration (Kumar, 2011). The language barrier makes them more vulnerable and prevents them from accessing health care and protecting their rights. In India social security and labour welfare listed in Directive Principles of state Policy and falls under Concurrent list. Unorganized sector doesn't have labour law coverage; these are seasonal and temporary nature occupation. The casual nature of work and labour mobility is high hence bargaining power is low. Kerala has several achievements to its credit in introducing social security measures to address economic and social distress. These social security schemes are mainly implemented through various welfare fund boards. The 'Interstate migrant Workers Welfare Scheme' introduced by Kerala Government has not made much impact. The enrolment of the scheme is only 54350 as on 31st December 2016(Government of Kerala, 2016) and there are no claimants till date. The state Government now plans to launch a health insurance scheme for the interstate migrant workers, it is necessary to study the opportunity, challenges, aims, benefits and the way of implementation of 'aawaz' scheme for its effectiveness.

#### **OBJECTIVES**

- 1. To study the awareness of the domestic migrant labourers towards the 'Interstate Migrant Workers Welfare Scheme' introduced in the year 2010
- 2. To understand the opportunities and challenges of 'aawaz' health insurance scheme introduced for the interstate migrant labourers.

#### RESEARCH METHODOLOGY

The study follows descriptive research design. The data collected from both secondary and primary sources. A primary survey is being conducted on the month of March 2017 with a sample of 100 migrant labourers from various construction sites in Kozhikode district using interview technique. Secondary data collected from various books, journals, reports, websites and working papers.

#### **RESULTS AND DISCUSSION**

The study shows that among the 100 interstate migrant labourers none is aware about the 'Interstate Migrant Workers Welfare Scheme'.

#### **DEMOGRAPHIC PROFILE**

#### TABLE 1: DEMOGRAPHIC FACTORS

	Age of the respondent Age of migration to Kerala		nigration to Kerala		
Mean	25.74	19.93	18.76	495	
Std. Deviation	5.53	4.36	3.44	101.37	

Source: Primary data

The table 1 shows the mean age of in-migrant labourers are 25 years. Their daily income after migration is Rs. 495 /- and mean age of migration to Kerala is 19.93 years and mean age at which the labourer joined in the construction labour market is 18.76. The study reveals that the in-migrant labourers get minimum wage from the state of Kerala (according to Central Sphere: Minimum Wage w.e.f January 19, 2017 to June 30 2017 by Paycheck.in).

These labourers do not get social security measures from their employers. They are also unaware about their rights and privileges, especially in labour welfare oriented state like Kerala. From the field study the researcher found out that among the 100 interstate migrant labourers none is aware about the 'Interstate Migrant Workmen Welfare Scheme' launched by the Government of Kerala during the year 2010.

TABLE 2: DISTRIBUTION OF DML (DOMESTIC MIGRANT LABOURERS) BY STATE OF ORIGIN

Name of the state	Frequency
West Bengal	52
Orissa	16
Bihar	12
Assam	11
Others	9
Total	100

Source: Primary data

From the field study shows that most of the migrant labourers are from West Bengal, Orissa, Bihar, Assam and from certain other states (includes Jharkhand and Tamil Nadu).

TABLE 3: DISTRIBUTION OF DML BY LANGUAGES KNOWN

Languages Known	Frequency
Mother tongue only	24
Mother tongue and Hindi	72
Mother tongue, Hindi and one other regional language	2
Mother tongue, Hindi, other regional language and Malayalam	2
Total	100

Source: Primary Data

Among the 100 migrant labourers 24 persons speaks only mother tongue. 72 Persons knows mother tongue and a little Hindi language.

**TABLE 4: DISTRIBUTION OF DML BY ACCOMMODATION TYPE** 

Accommodation Type	Frequency				
Shared rented	34				
Temporary accommodation at construction site	46				
Accommodation provided by employer	20				
Total	100				

Source: Primary Data

Among the 100 DML all have temporary living status. All of their accommodation is based on their present work. They are floating from one place to another in the State of Kerala.

#### **OPPORTUNITIES OF 'AAWAZ' HEALTH INSURANCE SCHEME**

Though 'Interstate Migrant Workmen Welfare Scheme' launched by Government of Kerala has some limitation, the state Government felt certain necessity to form an health insurance scheme for the DML (Domestic Migrant Labourers) / interstate migrant labourers working in the state. The prospects of the scheme are mentioned below.

- 1. It would provide free health care and medical facilities to those interstate migrant labourers who have registered in the scheme
- 2. Through this scheme the information about the DML will collect.
- 3. An identity card would be provided to the labourers through this scheme.
- 4. The DML working in Kerala between the age group of 18-60 would get registered under the scheme.
- 5. Each registered worker would get up to Rs. 15,000(in each year) as healthcare assistance for in-patient care from every Government hospitals and empanelled private hospitals in case of accidents or diseases.

The 'aawaz' insurance scheme will provide free health care and medical facilities to the DML who are contributing much of their labour in the state of Kerala.

#### **CHALLENGES OF 'AAWAZ' HEALTH INSURANCE SCHEME**

The health insurance scheme 'aawaz' is a great plan by Government of Kerala. But lack of effective implementation will lead to its failure. There are a few barriers to the effective implementation of 'aawaz' scheme they are as follows.

- 1. It is essential to collect information of the DML (Domestic Migrant Labourers) who have been spread across the state, for their registration to the scheme.
- 2. Implementing entities like agency, insurance company, software, the preparation of insurance linked identity card should be determined.
- 3. Beneficiaries may not have adequate knowledge about the scheme.
- 4. The cooperation of local self Government, internal affairs department, medical department should be ensured for the information collection and creating awareness among the interstate migrant labourers.
- 5. No separate welfare board is there for the implementation of welfare scheme for the interstate migrant workers.

#### **FINDINGS**

- 1. Among the 100 labourers who have been taken as a sample for the study do not have any awareness regarding the 'Interstate Migrant Workmen Scheme' implemented by the Government of Kerala during the year 2010.
- 2. The Government of Kerala failed to enroll even 2 percent of the estimated migrant labour force.
- 3. The enrolment of the scheme is only 54350 as on 31st December 2016.
- 4. There is no claimants have been yet reported till the date.
- 5. The health insurance scheme 'aawaz' is aimed to provide free health care and medical facilities to the interstate migrant labourers who have been registered in the scheme. The scheme will provide an insurance benefit up to Rs 15000/- (in each year) to the workers who have been get registered in the scheme.
- 6. It is challenging to get registered the interstate migrant workmen who have been spread over the state.
- 7. The language barrier and illiteracy of the beneficiaries will be challenging to the effective utilisation of the scheme.
- 8. It is very difficult to reach out all the interstate migrant labourers because of their temporary status of living and floating nature of migration.

#### **RECOMMENDATIONS**

- 1. The social security schemes introduced by Government of Kerala must reach all the beneficiaries through compulsory registration.
- 2. In order to reach out the scheme to the beneficiaries the cooperation of local self government and various government departments must be ensured.
- 3. All necessary steps should be taken to make employer and DML (Domestic Migrant Labourers) aware about the scheme.
- 4. Advertisement of the scheme should be made in the regional language of the DML, particularly in Hindi, Bengali, Oriya and Assamese language.
- 5. It is suggested that a separate welfare board shall be formed for the interstate migrant workmen working in Kerala.
- 6. A separate project shall be implemented with the help of NGOs in order to provide welfare net to the migrant labourers.

#### **CONCLUSION**

This paper examines the opportunities and challenges of 'aawaz' the ongoing health insurance scheme by Government of Kerala, for the DML (Domestic Migrant Labourers) in the state. The paper studies it on the base of awareness of DML regarding 'The Interstate Migrant Workmen Scheme' introduced by Government of Kerala during the year 2010. Due to the language barrier and relative backwardness of the DML the benefits of the welfare schemes are not reaching to them. A mass publicity programme should be initiated with the help of local self-government and trade unions for making the labourers aware about the ongoing welfare schemes.

#### **LIMITATIONS**

- 1. The primary data has been collected only from one district as time and resources are limited.
- 2. The population is spread across the state and so the researcher conducted a sample survey.
- 3. For collecting data from interstate migrant labourers the researcher has considered only DML working in various construction sites.
- 4. Study can be conducted in other sectors, where migrant labourers are working, so there is scope for further research in this topic.

#### SCOPE FOR FURTHER RESEARCH

- 1. The awareness of the DML (Domestic Migrant Labourers), working in various sectors regarding welfare schemes and labour laws can be studied.
- 2. How the publicity of ongoing schemes for the DML can be made.
- 3. How to include the DML in welfare net.

These are some of the scope for further research in this topic and these are not exhaustive list.

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#### FINANCIAL LITERACY: A STEP FORWARD TOWARDS SUCCESS

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#### **ABSTRACT**

Indian economy is on growth trajectory, with a preponderate realization amongst all in the financial spectrum a corresponding deepening of financial sector must precede. And, such deepening is possible, only when individuals and households are financially literate for sustainability. Economies around the world today felt Financial Literacy is ubiquitous for the growth and development of a country. The financial education has grown immensely from liberalization, privatization and globalisation time to the present time of post liberalization corporate era. Nevertheless to say, Government, Policy makers, Regulators and many organisations have taken steps in promoting Financial Literacy through a number of Financial Education Program. Financial Literacy gained its noteworthiness not only with the investors but also among all. A financially literate person must be proficient in the core competencies, having financial knowledge, ability, skill and experience supported by positive attitudes towards money. Financial literacy is understood by the link from knowledge to skills, to attitudes, to behaviour. This link is important, financial knowledge influences attitudes which in turn leads to action metrics. Financial Literacy is essential to judge, evaluate the complex saving and investment option among the myriad of products available in the market, by identifying the best suitable one. Financial Education helps the consumer/investor to be more realistic and practical in decision making. This paper show cases the importance of financial literacy of each and every individual and reiterates the need for financial education to become more self-reliant in the future. It also takes into accounts the complex intermingling multitude dimensions of financial literacy, its relevance, determinants and, role of regulatory authorities in India. The study concludes that the strategy for improving financial well-being of individuals in India focusing the young investors.

#### **KEYWORDS**

financial literacy, financial literacy measurement, financial behaviour, saving literacy, spending literacy, investment literacy.

#### INTRODUCTION

ay, the soil of India is my highest heaven; the good of India is my good. Forget not that the lower classes, the ignorant, the poor, the illiterate, the cobbler, the sweeper, are thy flesh and blood, thy brother. The only service to be done is to give them education, to develop the lost individuality". - Swami Vivekananda.

Just as it was not possible to live in an industrialized society without print literacy—the ability to read and write, so it is not possible to live in today's world without being financially literate.... Financial literacy is an essential tool for anyone who wants to be able to succeed in today's society, make sound financial decisions, and—ultimately—be a good citizen. Annamaria Lusardi (2011). This emphasises the importance of education, and to develop the individuality. Financial Education which was lopsided all these years is the order of the day. Financial Market after globalised and integrated made a paradigm shift in individual financial responsibility. With the growing complexities of financial products it becomes mandatory for every individual to develop or better understand in the world of finance to make and take right decision in order to fulfil the financial goals. Financial literacy is the process of acquiring knowledge about financial products, understanding the concept of trade-off between risk and return, utilizing the knowledge to make informed choices and appreciating the available professional knowledge. Research from academia, business houses, corporate report that inadequate financial literacy raises serious concerns in financial well-being. India is one of the fastest-emerging economies in the world. Over the last decade, both government and private industry have endeavoured to bring about an environment conducive to growth. This is increasingly reflected in better earnings and higher disposable incomes for the working population. The savings invested in various options available to the people, the money acts as the driver for growth of the country (India Wealth Report, 2011).

Singh (20081) commented that —....we must not forget that growth is not the only measure of the development. Our ultimate objective is to achieve broad based improvement in the living standards for all our people|| (p.iii). So from all the above remarks, It is observed that financial literacy skills enable individuals to navigate the financial world, make informed decisions about their money and minimise their chances of being misled on financial matters.

#### **NEED FOR FINANCIAL EDUCATION**

The sense of public urgency over the level of financial literacy in the population is a reaction to a changing economic climate in which individuals now shoulder greater personal financial responsibility in the face of increasingly complicated financial products. Hogarth J. M. (2006) has defined in his study that —financial education include: (1) being knowledgeable, educated, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes; (2) understanding the basic concepts underlying the management of money and assets (e.g., the time value of money in investments and the pooling of risks in insurance); and (3) using that knowledge and understanding to plan, implement, and evaluate financial decisions|| (p. 3).

The importance of Financial Literacy is felt with the advent of growing complexities in the Financial Space. Reducing the cost through Financial Engineering, Innovation in Financial products & services, ever changing scenario in the domestic financial market, multifaceted feature of financial products, increase in an individual responsibility, increase in life expectancy, change in pension scheme are some basic elements which reiterated time and again the importance of Financial Literacy. Consumer financial decision making emphasises financial capacities of individual. The relationship between financial literacy and economic outcomes, including wealth accumulation, savings decisions, investment choices, and credit outcomes evidence on the impact of financial education on financial literacy and on economic outcomes. Indirectly Financial behaviour of Individual is encouraged through bargaining power, utility of funds, debt management, control of spending and importance of savings so on and so forth.

The absence of financial literacy or low level of financial literacy may lead to unhealthy financial thinking, about financial products and services. This result to poor financial judgments and hence poor personal financial management. Financially illiterate individual either voluntarily do financial exclusion or may prefer to get the financial information from unreliable sources, the analysis of which may result into misallocation of private wealth, can mire the household into debt and lead to much lower living standards. At a macro level, it can cause social decline and increase public expenditure in the form of social security. Absence of this knowledge and skill thus may pose a variety of risk to individual, societal and economy as a whole.

#### **REVIEW OF LITERATURE**

The emerging economic environment of competitive markets signifying individuals' sovereignty has profound implications for the savings and their investment in India. Beginning with the relevance of financial systems to economic development through the savings-investment process and to get an in-depth idea for the topic under study and to support the academic research base to a research topic, the review of literature presented. This section also includes studies those had measured the association of demographic factors of investors with investment decisions. It also incorporates the importance of risk tolerance ability and need for/ sources of information search in decision making. It also discusses theoretical framework for financial behaviour. Review of literature is presented on various studies those have attempted to establish the relationship between financial education, financial literacy and various financial behaviour.

Mark Taylor (2010) in his study highlighted about the determinants of Financial Literacy. He showed age, health, household size and structure, housing tenure, and the employment status are the key determinants in financial literacy. He added that majorly age and employment have larger impact. Sahni (2010) has studied the "Behavioural Finance: Testing Applicability on Indian Investors". It was conducted with the objective to test the applicability of behavioural finance theories on Indian investors and with the sub-objectives to study the concept of behavioural finance and various theories associated with it and to prove the loss averse nature of investors The sample size for the consumer survey is 135 and they are drawn randomly. They finally concluded that there is an investors' perception about market trend that is influenced by the past performance of a stock market on three consecutive days, which shows that the anchoring theory is relevant in case of Indian investors. The Indian investors are found to be loss averse, i.e., there is difference in investors' behaviour in case of losses and gain.

Tullio Jappelli (2009), has done a comprehensive assessment of literacy across the world. He selected country experts and managers from different countries for a period of 1995-2008. He identified that its level depends on educational achievement, social interactions, and mandated savings in the form of social security contributions. The contribution rate is used as proxy for financial market deepening to minimize the risk of reverse causation between financial literacy and financial development, financial knowledge depends on cognitive ability. Margaret Miller, Nicholas Godfrey, Bruno Levesque and Evelyn Stark (2009) published a study 'The Case for Financial Literacy in Developing Countries- Promoting Access to Finance by Empowering Consumers'. The study was co-authored by Margaret Miller (World Bank Group), Nicholas Godfrey (Department for International Development (DFID), Bruno Levesque (Organisation for Economic Co-operation and Development (OECD), and Evelyn.

#### **OBJECTIVES OF THE RESEARCH**

- 1. Identifying the factors that determines of Financial Literacy and Education.
- 2. Role of Regulatory authorities in relevance to Financial Literacy in India.
- 3. To assess the level of awareness on investment & saving avenues

#### **METHODOLOGY**

The design of research study is exploratory. The data used is secondary. I.e. data is collected from various sources such as magazines, journals, research papers; newspapers etc. different websites are also being studied to collect the required data.

#### **ANALYSIS**

#### **FACTORS DETERMINING FINANCIAL LITERACY AND EDUCATION**

The financial literacy level majorly depends upon the education and income of the individuals; the social factors such like family size, family background, age, regions nature of employment have a little impact on this. The present study has focused on following demographic and socio economic factors of the investors.

FIG. 1: REPRESENTS THE LOGICAL RELATIONSHIPS AMONG OF FINANCIAL LITERACY COMPONENTS

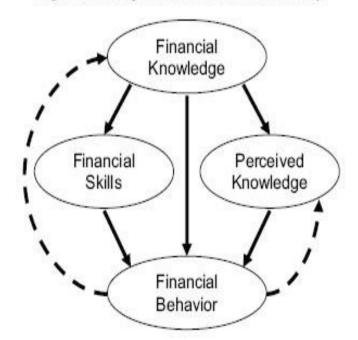
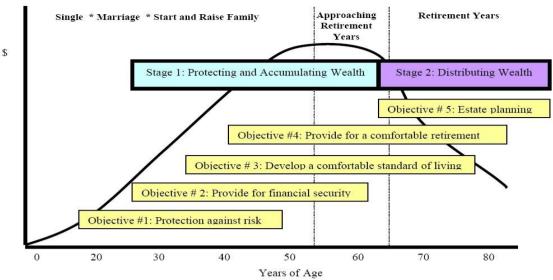


Figure 1. Conceptual Model of Financial Literacy

Source: Angella A. Hung, Andrewn M. Parker and Joanne K. (2009). Defining and measuring financial literacy. Working Paper Series: WR 708. Department of Labour and the National Institute on Aging via the RAND Royal Center for Financial Decision Making

#### FIG. 2: AN INDIVIDUAL'S FINANCIAL LIFE CYCLE AND CORRESPONDING OBJECTIVES



Source: Life cycle of financial planning by Gail M. Gordon, University of Wyoming Cooperative Extension Service, 2001

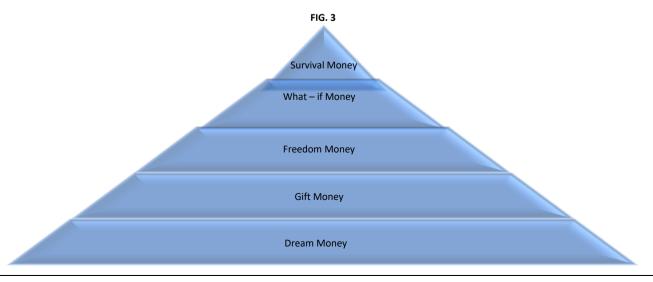
- 1. **Age:** Financial literacy follows an inverted-U shape with respect the age. Financial literacy increases among the youths is high as soon as the age increases it decline this is may be due to time as soon as time varies a lot of changes took place in the financial market and youth is make effort to update and accept the changes.
- 2. **Gender:** Financial literacy is affected by gender as women's literacy in India is matter of debate since past, hear as women's are saving rate among women's is high not in formal ways as there are several biasness only the matters of education among them.
- 3. **Education & Monthly Income**: Financial literacy is associated with higher educational attainment and income. As soon as the education levels of individuals increases their understanding about the financial terms and clarity about their financial needs and goals in order to protect their finance they increases the effort toward the accessing the information, which ultimately enhances their knowledge of present financial services and products.
- 4. **Stages of Family Life Cycle**: In the young age an individual is prepare to take more amount of risk and as he grows older, since he has to take care of his family, risk tolerance diminishes.
- 5. **Number of years of work experience:** As one grow and becomes experienced, he stated tasting Investment experience also and for the purpose tax evasion also the investment becomes more so as the financial literacy.
- 6. **Geographical region &Employment:** Financial literacy is associated with more sophisticated investment. While it is dependent upon the nature of employment the privet employees have better levels in comparison of government employees. As far as geographical region is concerned developed nations are more financially literate than the emerging economies.
- 7. **Financial Behaviour & Risk tolerance Level:** The more one is financially literate the more one becomes risk appetite. So one's financial behaviour changes. Because of this behaviour even one wishes to achieve success by going to top of pyramid. This study has also examined the relationship of these factors on financial literacy level of investors and the impact of financial literacy level on their monthly spending to monthly income ratio, monthly saving to monthly income ratio and investment decision.

#### **ROLE OF REGULATORY AUTHORITIES IN RELEVANCE TO FINANCIAL LITERACY**

Reserve Bank of India (RBI) has mandated the banks to enhance Financial Inclusion and Financial Education in the country which gives impetus to the economy. Securities Exchange Board of India (SEBI) is conducting Financial Awareness Program from school level students and rewards them. On the top of it gives protection to investors too. Insurance Regulatory Development Authority's (IRDA) Initiatives on Financial Education. Awareness programs have been conducted on television and radio and simple messages about the rights and duties of policyholders. Pension Fund Regulatory and Development Authority (PFRDA), India's youngest regulator has been engaged in spreading social security messages to the public. Commercial banks have initiated various measures for creating awareness about products through Counselling, Centers and Rural Self Employment Training Institutes on financial literacy.

As the economies are integrated and globalised endeavour to improve the financial situation of their citizens by achieving higher economic growth rates. Financial Education offers many employment opportunities to the people around the world. Enhancement of financial literacy would help improve the financial well-being of their people even further through sound financial decision making.

Financial needs Hierarchy: The diagram show the financial Needs Hierarchy in detail:



The explanation of these financial needs hierarchy is given below.

- Survival money: The money that an individual spends simply to survive.
- What-if money: The money required to protect the life.
- Freedom money: The money needed to do the things that bring joy and fulfillment to the life.
- **Gift money:** This is the replacement for —love.
- **Dream money:** This is the elusive —self-actualization|| level where an individual finds true happiness and meaning.

#### **SUGGESTIONS & RECOMMENDATIONS**

More emphasis on Financial Education is to be given to School, college and University students, as there is low level of financial literacy exist among 18-25 age group and 26-35. The above 56 years old people are to be targeted for their retirement plan. Female group are to be targeted as they have to empower, educate and enhance. Finance Education is to be given as information, instruction and not as an advice. It should be disseminated in fair and unbiased manner. Companies should also emphasis on developing financial literacy of the community by providing financial education to various masses as a part of Corporate Social Responsibility. Financial education complements the important aspects like greater transparency, policies on consumer protection and regulation of financial institutions. Financial literacy should be on a common structure and a common approach so that it can be spread in a comprehensive manner. These efforts should aim at empowering consumers to understand and select the financial products and services that best suit their needs, goals and personal circumstances. The overall efforts by regulatory authorities, N.G.O.s and community groups should be structured in the direction to enable the individuals to develop the ability to make informed judgments, to be able to identify financial products and services that address their needs, to take effective decisions regarding the use and management of their money and to avoid to be a victim of bad selling.

#### **CONCLUSION**

After more emphasis is given about Financial Literacy and Financial Education, it is absolutely possible to walk to the road of success. When Economy upliftment is taken care social upliftment will happen on its own which every country is striving for. India is also no exception to this.

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#### ECONOMIC DEVELOPMENT AND ENVIRONMENTAL CHALLENGES: A CASE OF PUNJAB

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#### **ABSTRACT**

The optimum use of the world's resources in accordance with the objective of sustainable development and seeking to shield and preserve the environment is need of the hour. The growing population and economic development leads to various environmental issues. After independence the state of Punjab was powered by Green Revolution, which further generated the various opportunities for industrial and manufacturing sector. Green Revolution and Industrial Development are leading the Punjab economy towards environmental issues. There are several problems in Punjab, particularly pollution of fresh water bodies, air pollution, and lack of proper waste management, deforestation, loss of biodiversity, desertification, water logging, natural disasters and climate change. This paper throws light on the economic development in Punjab and environmental challenges faced by the economy with the help of Environmental Kuznets Curve. The Curve suggests that economic development at the initial stages degraded the environment, but after the certain level, an economy starts improving its relationship with the environment. Externalities are other major factors that influence the environment.

#### **KEYWORDS**

environmental issues, environment kuznets curve, pollution.

#### INTRODUCTION

he pros and cons of economic growth are ferociously debated by economists, environmentalists and other social activists. This paper emphasized some of the environmental challenges faced by the economy from expanding levels of production and consumption. Rapid development leads to various environmental problems also. There is always a tradeoff between economic growth and environmental. Environment is a luxury for developing nations. Sustainable development is the need of the hour. Sustainable development requires the preservation of natural capital. Natural capital includes natural resources, land and ecosystem. If any pattern of development continues to deplete natural capital, then that development is not sustainable. The optimum use of the world's resources in accordance with the objective of sustainable development and seeking to shield and preserve the environment is need of the hour.

This paper throws light on the economic development in Punjab and environmental challenges faced by the economy with the help of Environmental Kuznets Curve. Punjab is the richest Indian state. Being the neighbor of the national capital Delhi, it has a high growth of economy for years. This north Indian state has very affluent neighboring states and cities such as Haryana, Jammu & Kashmir, national capital Delhi, Rajasthan and Himachal Pradesh and Pakistani states of Punjab which has been creating multiple trade opportunities for the people from all walks of life. Punjab occupies 1.5 per cent of the country's geographical area and accounts for more than two thirds of the country's production of food and of hosiery. This unique piece of land covers an area of 50,362 squares kilometers. Punjab stands 2<sup>nd</sup> on the basis of various socio-economic parameters viz. macro economy, investment environment, infrastructure, agriculture, primary education and consumer markets. The state has been ranked 1<sup>st</sup> in agriculture, infrastructure, and consumer markets, 5<sup>th</sup> in macro economy, 7<sup>th</sup> in primary health services and 10<sup>th</sup> in primary education and industrial investments. The state has been ranked 5<sup>th</sup> in term of size, 11<sup>th</sup> in legal system and 12<sup>th</sup> in overall economic freedom and 18<sup>th</sup> in labour regulation. Among the 15 bigger states of India, Punjab stands 2<sup>nd</sup> in overall competitiveness ranking of the states. Punjab is highly advanced as far as infrastructure is concerned. The high-end communication creates trades, business and employment opportunities for the exporters, industrialists, importers, distributors and suppliers etc. this stats has also high level of manufacturing industries. Punjab is one of the most industrialized states in India. In Punjab industries do play important role in economic development. Basic classifying industries of Punjab are as rural, cottage, medium, and major or large scale industries. (Economic Survey of Punjab)

#### **GROWTH OF INDUSTRIAL SECTOR IN PUNJAB**

The state has done remarkably well in the field of agriculture and is now laying emphasis on promoting industrial growth. During 2015-2016, there were 1, 61,400 small scale and 500 large and medium scale industries. The industrial production has more than doubled in both, small scale industries (from Rs. 50963 crore in 2010-11 to Rs. 93000 crore in 2015-16) as well as medium and large scale industries (from Rs. 72284 crore in 2010-11 to Rs. 130500 crore in 2015-16). Various industrial sectors like processed foods, rice, yarn & textile, hosiery, pulp & paper and sports goods depend upon biological resources which are being cultivated and are normally traded. The share of industrial sector (Secondary Sector) to State Gross Domestic Product has increased from 14.78 per cent in 2011-2012 to 14.53 per cent in 2015-16. There are also 225 registered herbal units operating in the State, besides many unregistered units. These are extensively utilizing medicinal plants and herbs which are obtained from various parts of Punjab and adjoining states. The number of large industries in state is going down, the state economy is based on small scale industries mostly food processing industries. There is also clustering of the industrial units in some big cities like Fatehgarh Sahib, Ludhiana, Jalandhar and Amritsar. Jalandhar is popular in making sports goods which is world famous for its quality. (Economic Survey of Punjab, 2016)

#### **GROWTH OF AGRICULTURAL SECTOR IN PUNJAB**

Agriculture is the mainstay of Punjab's economy, providing livelihood to over 60 per cent the population in the State. Punjab economy is basically an agrarian economy. Punjab is widely acknowledged 'Granary of India'. However, the hitherto vibrant agriculture sector of Punjab is now facing serious challenges posed by deteriorating natural resource base due to monoculture of wheat and paddy crop rotation, stagnation in yields of principal crops, declining farm incomes and rural indebtedness. As a concomitant of growth, the share of agriculture and allied sector in Gross State Domestic Product (GSDP) has been rapidly declining over the years. The share of agriculture and allied sector in GSDP which was 30.81 per cent in 2011-12 has declined to 27.22 per cent 2015-16.

TABLE NO. 1.1: DISTRICT -WISE DISTRIBUTION AND TYPES OF INDUSTRIES IN PUNJAB

District	Concentration of types of Agro-industries in Punjab			
Amritsar	Power Loom Weaving, Wood & Machine Screws, Radio & Transistors, Agricultural implements, Paints & Varnishes and Dyes, Electric fans,			
	Pharmaceuticals, Printing machinery, Textiles, Chemicals, Soap, Acids.			
Ferozpur	Cotton ginning and processing, flour mills, milkboard and agricultural implements			
Bathinda	Cotton ginning and processing, flour mills			
Fatehgarh Sahib	Steel re-rolling, Pump parts, Sewing machine parts, Truck body building			
Gurdaspur	Agricultural implements, Conduit pipes, Machine tools, Soap & chemical products, C.I. castings, Brassware			
Hoshiarpur	Rosin & Turpentine oil, Paints & Varnish, Sugar, Agricultural implements, Pressure cookers, Paper and Paper board			
Jalandhar	Surgical instruments, sports goods, Hand tools, Automobile parts, Cocks & valves, Pipe fittings, Bus body building, Leather tanneries, Ball			
	bearings, Publication, Switch & switch-gears and Rubber goods			
Kapurthala Agricultural implements, Pressure cookers, Fans, Wood & Machine screws, Electrical goods, Rice Mills, Rubber go				
	Diesel engines.			
Mansa	Agricultural implements, cotton spinning			
Moga	Cotton yarn, rice bran oil, paper			
Ludhiana	Bicycles & bicycle parts, Automobile parts, Hosiery goods, Sewing machine & parts, Home appliances, Machine tools, Readymade gar-			
	ments, Hosiery needles, Rubber goods, Label s (Metal & Cotton), Chemical goods, Oil			
	engines, Agricultural implements, Electronic goods, Tractor parts, Cycle tyres/tubes, Plastic goods			
Patiala	Automobile parts, Sewing machine parts, Enamelled copper wire, Electrical goods, Bakery machinery, Cutting tools, Biscuits, shoes			
Rupnagar	Agricultural implements, Pharmaceuticals, Tractors & Parts, Electronic components, Electrical components			
Sangrur	Agricultural implements, Tractor parts, Cycle parts, Sewing machine parts, Milk products, Chilled Rolls			
Nawanshahar	Light Commercial Vehicles, Pharmaceutical, Yarn, and Sugar			
Muktsar	Cotton yarn, Rice Bran Oil, Paper			

Source: Directorate of Industries, Punjab.

District-wise distribution and types of industries in Punjab has been discussed above. The main industrial districts in Punjab are Ludhiana, Jalandhar, Amritsar and Bathinda. Ludhiana district is known for textile and hosiery products, Jalandhar and Bathinda districts for food products, paper and machinery and textiles. Besides these medium and major industrial units, a large number of small scale and tiny units are also engaged in the manufacture of the same products. Since we have mentioned all the industrial units, but our study is restricted to only six items, these are Yarn and Textiles, Hosiery and Ready Made Garments, Bicycle and Bicycle parts, Leather Products, Sports Goods, and Hand Tools.

**TABLE: 1.2 MAJOR POLLUTANTS AND THEIR SOURCES** 

S. No	Major Pollutants	Sources
1	Carbon monoxide	Incomplete fuel combustion (e.g. two/four stroke engines)
2	Sulphur dioxide	Burning of sulphur containing fuel like coal in Power Plants and emission by vehicles
3	Suspended particulate matter	Smoke from domestic, industrial and vehicular sources.
4	Oxides of nitrogen	Fuel combustion of motor vehicles, emission from power stations and industrial furnaces.
5	Oxidants and ozone	Emissions from motor vehicles, photochemical reactions of nitrogen oxides and reactive hydrocarbons.
6	Lead	Emissions from motor vehicles

Source: Environment Statistics of Punjab, 2012

Major pollutants & their sources have been discussed in above table. There is need of proper disposal of wastes of industries to protect the environment. To promote environmental protection, conservation of natural resources and sustainable development, the state government set up the Punjab Pollution Control Board (PPCB) in 1975 and a division of environment in the Punjab State Council for Science & Technology (PSCST) was established in 1988, which is providing technical assistance to Department of Science, Technology & Environment, Government of Punjab.

TABLE 1.3: CATEGORY WISE AIR POLLUTING INDUSTRIES IN PUNJAB

Name of Industry	Major Air Pollutants
Rice, Sugar, Food Products	Particulates, CO2, SO2, NOx
Beverages	Particulates, Odour
Cotton/Woolen/Synthetic/Textile/Dying etc.	Particulates
Paper Products & Printing	Particulates, mercaptans
Leather & Leather Products	Particulates, Odour
Rubber & Plastic Products	Particulates, Odour, VOCs
Chemical Products	Cl2, HCl, Acid mist, Acid fumes, Hydrocarbons
Non-Metallic Mineral Products	Particulates
Metal Products	Metallic Particulates, CO, SO2, Acid Mist
Transport Equipment & Parts	Particulates
Brick Kilns	Particulates, SO2, CO
Pharmaceuticals	Odour, Particulates
Rolling, forging & galanizing units	Particulates
Fertilizer, Vanaspati, Thermal, Cement, etc.	Odour, Particulates

Source: Status of Environment Report, Punjab

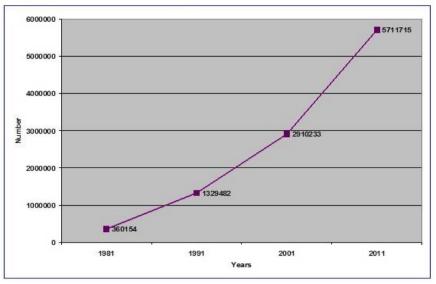
Table 1.3 explains the various air polluting industries in Punjab and major pollutants that effect the environment. Major frequent pollutant in all the cases was Particulate Matter.

#### **VEHICULAR POLLUTION**

Vehicular emissions are of particular concern since these are ground level sources and thus have the maximum impact on the human population and other biotic components. The major pollutants released as vehicle/fuel emissions are carbon monoxide, nitrogen oxides, photochemical oxidants, air toxics namely benzene, aldehydes, 1-3 butadiene, lead, particulate matter, hydrocarbon, oxides of sulphur and polycyclic aromatic hydrocarbons. (Environment Report, Punjab)

#### **GROWTH OF VEHICLES IN PUNJAB**

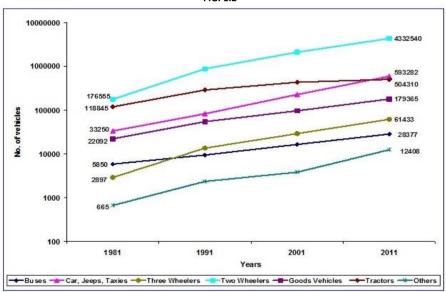
FIG. 1.1



Source: Environment Statistics of Punjab

#### **GROWTH OF DIFFERENT TYPES OF VEHICLES IN PUNJAB**

FIG. 1.2



Source: Environment Statistics of Punjab

Industrial towns with a high growth and, therefore, high pollution potential will come in for special attention from the Punjab Pollution Control Board, under a new initiative to deal with pollution in the state. Amritsar, Batala, Gobindgarh Mandi, Jalandhar, Khanna, Ludhiana, Nangal and Phagwara have already been earmarked by the board as the most polluted areas in the state. The board has also identified more than 6,200 water-polluting and 3,500 air-polluting industries. It will file cases in court against 16 industrial units on grounds of water pollution. Also on the anvil are 24 monitoring stations to measure the level of noise in heavily. (indiaenvironmentportal.org) According to report published in Times of India, "air quality in North Indian cities is 2-3 times worse than cities in South India, which led to a sharp rise in cases of chest and throat disease in India and India has 10 cities in Top 20 most polluted cities in the world including Ludhiana and Khanna.

TABLE 1.4 COMPARATIVE VALUES OF RSPM, SO2 & NOX MG/M3 FROM 2013 TO 2016 (Annual Average)

Area	RSPM μg/m3			N	ox μg/m	13		S	O2 μg/n	n3		
	2013	2014	2015	2016	2013	2014	2015	2016	2013	2014	2015	2016
Dera Bassi	111	99	91	97	18	15	15	13	8	6	6	6
Mandi Gobindgarh	164	135	130	126	33	36	36	34	6	7	7	7
Nangal	87	85	83	91	16	12	12	12	5	4	4	5
Bathinda	131	123	111	117	21	17	15	13	8	6	6	5
Patiala	108	103	110	107	16	14	15	13	6	6	5	5
Jalandhar	131	145	150	159	27	26	27	26	13	14	14	12
Ludhiana	203	152	143	139	27	27	26	25	11	10	10	10
Khanna	183	163	123	114	23	23	22	20	12	10	10	10
Amritsar	177	187	185	232	40	40	38	38	13	13	13	14
Sangrur	93	90	98	92	15	13	13	13	5	4	4	4
Faridkot	93	73	90	106	15	11	13	12	6	4	5	5

Source: Environment Statistics of Puniab, Various Issues

Table 1.4 describes the annual average comparative values of RSPM, So2 and Nox in Major Cities of Punjab from 2013 to 2016. The values of RSPM, So2 and Nox is average of the locations industrial areas and residential areas.

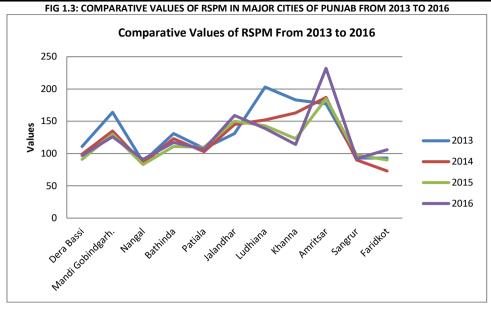


FIG 1.4: COMPARATIVE VALUES OF NOX IN MAJOR CITIES OF PUNJAB FROM 2013 TO 2016 Comparative Values of Nox From 2013 to 2016 45 40 35 30 Values 25 2013 20 2014 15 10 2015 5 2016 0 Mandi Gobindean. Dera Bassi

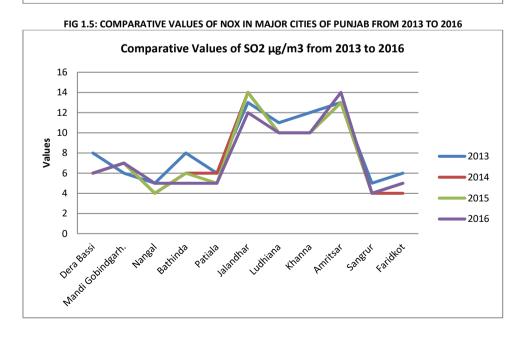


TABLE 1.5: COMPARATIVE VALUES OF RSPM, SO2.NOX, GSDP AND PER CAPITA IN PUNJAB FROM 2013 TO 2016 (Annual)

Year	RSPM	Nox	SO2	Air Pollution	GSDP	Per Capita Income
2013	135	23	8	166	298581	105143
2014	123	21	8	152	313276	114561
2015	119	21	8	148	331940	126063
2016	125	20	8	153	454398	126606

Table 1.5 describes the comparative values of RSPM, SO2, NOx, GSDP and Per Capita in Punjab from 2013 to 2016.

#### **TABLE 1.6: CORRELATION BETWEEN GSDP AND AIR POLLUTION**

GSDP	Air Pollution
1	-0.32
-0.32	1

Table 1.6 depicts the correlation between GSDP and air pollution in various major cities in Punjab. The correlation coefficient -0.322 represents inverse relationship between GSDP and air pollution.

TABLE 1.7: CORRELATION BETWEEN PER CAPITA INCOME AND AIR POLLUTION

Per Capita Income	Air Pollution
1	-0.85
-0.85	1

Table 1.7 depicts the correlation between GSDP and air pollution in various major cities in Punjab. The correlation coefficient -0.322 represents inverse relationship between GSDP and air pollution.

#### CONCLUSION

From the above analysis this has been found that there was an inverse association between GSDP, Per Capita Income and Air Pollution. The correlation coefficient in both cases was negative. As the Environmental Kuznet Curve suggests that economic development at the initial stages degraded the environment, but after the certain level, an economy starts improving its relationship with the environment. (Stern, 2003) Externalities are other major factors that influence the environment. The correlation coefficients supported the Environmental Kuznet Curve hypothesis. According to Stern, in sluggish economies, emissions-reducing technological change can overcome the scale effect of rising income per capita on emissions. Due to this, considerable diminutions in sulfur emissions per capita have been witnessed in many OECD countries in the last few decades. Punjab economy witnessed major changes after the green revolution and industrialization. During the initial stages of the growth, there was a lack of awareness about environmental issues. In this regard, under Article 48A of the, 42nd Amendment Act under the Indian Constitution, the government of India provided for the protection of environment and forests. As per the Act, "The state shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country". In addition to the above act, under the article 51A of the same amendment, under the fundamental duties of the citizens of India' the act states that 'it would be the fundamental duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have a natural compassion for living creatures'. The Punjab Pollution Control Board has been monitoring the pollution levels at 20 locations out of which nine are in the residential cum commercial areas and 11 are in the industrial areas. The Punjab Pollution Control Board has laid down guidelines with regard to pollution control for any entrepreneur wanting to set up an industrial

In addition to this Government of India/Punjab spreading information among general public through various national and state level programmes for the protection of environment for the sustainable development of the economy.

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#### **EQUIPPING EVERY LEARNER FOR 21<sup>ST</sup> CENTURY**

# Dr. AMARDEEP KAUR PRINCIPAL ASRA COLLEGE OF EDUCATION SANGRUR

#### **ABSTRACT**

Education has been a fundamental component of human well-being and national productivity. Only high quality education helps for well- being and national development. There is need to transform the education system so as to achieve the target of universalization of elementary education along with the quality in education. With a great deal of investment being put into outfitting schools with technology, the question of whether or not it is worth the investment is a valid one. However, this paper strives to address the holistic transformation of education systems and to offer a foundation on which quality education and system leadership can be achieved. We believe the core of an excellent education system is based on talented teachers, strong system leadership, solid curriculum, and accountability for outcomes. However, another key component is the integration of technologies that can fuel new forms of teaching and learning, nurture 21st century skills and prepare learners for participation in the global economy of this century.

#### **KEYWORDS**

leadership, curriculum, integration of technologies, global economy.

#### INTRODUCTION

e know that education has been the passport to opportunity and prosperity. It has enabled individuals, whether in developing or developed countries, to become academics, entrepreneurs, and business and government leaders. We recognize the challenges facing education systems have a direct impact on our future as a corporation. Sustainability for us depends on the innovation and expertise of our employees. Our priority will always be the recruitment and retention of top talent. It depends on the solid foundation taught during primary, secondary, and tertiary education. We know that although today's global, Internet-based economy provides numerous opportunities not available before, there is still a critical need for universal access to quality education and visionary leadership. Significant barriers remain to achieve this, from gender inequality to a lack of basic capacity, and we are involved in many initiatives to counter precisely these problems. However, this paper strives to address the holistic transformation of education systems and to offer a foundation on which quality education and system leadership can be achieved. We believe the core of an excellent education system is based on talented teachers, strong system leadership, solid curriculum, and accountability for outcomes. However, another key component is the integration of technologies that can fuel new forms of teaching and learning, nurture 21st century skills, and prepare learners for participation in the global economy of this century. Technology had the potential to increase access to education as well as improve teacher training and student learning; Sustainability of quality education and access to it needed a multi-stake-holder approach that included government officials, education leaders, teachers, private sector investments, and non-governmental organizations (NGOs) to address many of the basic needs and barriers to education.

#### SYSTEM REFORM MOVEMENT

There is now an emerging consensus on the resources needed to build a well-functioning education system. These are exceptional teachers and teaching methods, relevant and stretching curricular content, accountability for outcomes, and outstanding system leadership.

- Attract and develop very high quality teachers.
- Develop well defined and holistic curricula.
- Develop high quality system leadership.
- 4. Create practices and regimes that can improve processes and outcomes.

#### **CHANGING LEARNERS**

How can traditional modes of classroom instruction engage and inspire students when life outside the classroom has changed so dramatically? For many learners, class is the only time in their day when they completely "disconnect." Now everyone can be a creator—a film maker on YouTube, a recording artist on Second Life, or an opinion leader on blogs and a multitude of gossip and comment sites. The new paradigm requires a broader reform agenda; one that responds to socioeconomic realities and enhances learning opportunities through collaborative technologies. It presents a global destination with many different local paths.

#### PATH TO 21<sup>ST</sup> CENTURY

#### HOLISTIC TRANSFORMATION

The paradigm shift to a world of 21st century learning is rooted in a set of goals for all learners:

- ❖ Acquire a range of skills needed to succeed in a modern, globalized world
- Receive tailored instruction that enables them to reach their full potential
- Connect to their communities in person and digitally, and interact with people from different cultures
- Continue learning throughout their lives.

Achieving this vision requires transformation in four interconnected core area.

- 21st century skills that complement the core curriculum.
- 2. 21st century pedagogy to teach these skills effectively alongside basic literacy and numeracy skills.
- 3. Crucial enabler of both the new pedagogy and skills, is technology, harnessed in a much more fundamental and effective way than traditional applications in education.
- 4. 21st century system reform that integrates and adapts the pillars of high performing systems outlined earlier—great teachers, curricular excellence, accountability for outcomes, and outstanding System leadership.

Progress will only occur when all four areas are leveraged and deployed to work together in an integrated way. Leading technologies, for instance, cannot replace teachers, but can support them in accomplishing much higher levels of student engagement and achievement. Similarly, great teachers cannot effectively reach young learners without adopting new pedagogies and few education systems can prepare their learners for prosperity without supporting the development of 21st century skills.

#### SKILLS IN 21<sup>ST</sup> CENTURY

- Problem solving and decision making
- Creative and critical thinking
- Collaboration, communication, and negotiation

- Intellectual curiosity and the ability to find, select, structure, and evaluate information and the motivation to be:
- An independent self-starter who is responsible, persevering, self-regulating, reflective, self-evaluating, and self-correcting
- A lifelong learner who is flexible and able to adapt to change

#### **PEDAGOGY**

- THE LEARNER AT THE CENTER: This approach caters to multiple learning styles and adapts education to reflect the learning needs of each individual.
- \* THE TEACHER DRAWS FROM A REPERTOIRE OF STRATEGIES AND SKILLS: Education must nurture creative and collaborative skills. Knowledge is available at the click of a mouse, but learning to apply it requires a teacher who can instruct, facilitate, guide, and support as needed.
- INTERDISCIPLINARY AND PROJECT-BASED WORK: Interdisciplinary and project-based teaching is also particularly conducive to working in teams, and hence provides another example of the link between 21st century skills and the pedagogy used to impart them.
- AUTHENTICITY: Delivering learning that is authentic is another way to engage students by appealing to their existing passions and interests. It is equally important to integrate real-life experiences into lessons.

#### CONCLUSION

Education has been a fundamental component of human well-being and national productivity. Only high quality education helps for well- being and national development. There is need to transform the education system so as to achieve the target of universalization of elementary education along with the quality in education. With a great deal of investment being put into outfitting schools with technology, the question of whether or not it is worth the investment is a valid one. However, this paper strives to address the holistic transformation of education systems and to offer a foundation on which quality education and system leadership can be achieved. We believe the core of an excellent education system is based on talented teachers, strong system leadership, solid curriculum, and accountability for outcomes. However, another key component is the integration of technologies that can fuel new forms of teaching and learning, nurture 21st century skills and prepare learners for participation in the global economy of this century.

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## A STUDY ON THE PROMOTION AND REWARD POLICY WITH REFERENCE TO RELIANCE DYEING WORKS TIRUPUR

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#### **ABSTRACT**

Each organization needs to maintain a balance between the internal sources of personnel promotion and external sources by means of recruitment. Hence, promotion must be based on consistent, fair and clear cut policy. The National Institute of Personnel Management (NIPM) has suggested a promotion policy on the following lines: Drawing up an organization chart to make clear to all the ladder of promotion. Where there is a job analysis and a planned wage policy, such chart is quite easy to prepare. Making the promotion system clear to all concerned who may initiate and handle cases of promotion. Though departmental heads may initiate promotion, the final approval must lie with the top management, after the personnel department has been asked to check from its knowledge whether any repercussion is likely to result from the proposed promotion. All promotions should be for a trial period to ascertain whether the promoted person is found capable of handling the job or not. Normally, during this trial period, he draws the pay of the higher post, but it should be clearly understood that if "he does not make the grade" he will be reverted to his former post and former pay scale. This study is conducted in a conceptual way. As we have intended to study about the influence of rewards and satisfactions on employee's performance, information that we have used were gathered from distinct areas such as text books, company reports and journals and the Internet sources were resourceful in the process of gathering the information.

#### **KFYWORDS**

Reliance dyeing works, Tirupur, promotion & reward policy.

#### INTRODUCTION

very year, employees in an organization eagerly wait for the day when their efforts and achievements during the previous year would be evaluated and appreciated. Incentives, rise in salary, employee benefits etc given to employees gives them a tremendous sense of satisfaction. But the most important motivating factor, which rejuvenates an employee with more enthusiasm and responsibility, is "Promotion".

Promotion is an emotional and explosive issue with far-reaching implications. It means that one has journeyed steadily and has arrived somewhere in an organization and the process of his making a growth has begun. Some organizations give impressive designations to please their employees as a part of succession planning at the top management. Many employers state clearly in advance the criteria for granting promotions while others take into consideration the amount of hard work put in as well as one's desire to improve his performance. People strive to get absorbed in companies at higher level posts or try to maintain proper contact with top level management to get promotions. But some companies strictly keep senior level positions for personnel with professional employee attitude or management qualifications, especially to limit the number of aspirants. Due to an increase in automation and rationalization, many intermediate jobs too are fast disappearing and promotional avenues are getting considerably narrow.

Rewards are positive outcomes that are earned as a result of an employee's performance. These rewards are aligned with organizational goals. When an employee helps an organization in the achievement of one of its goals. Employees are motivated by both intrinsic and extrinsic rewards. To be effective, the reward system must recognize both sources of motivation. All reward systems are based on the assumptions of attracting, retaining and motivating people. Financial rewards are an important component of the reward system, but there are other factors that motivate employees and influence the level of performance. Today's emphasis on quality-improvement teams and commitment-building programs is creating a renaissance for financial incentive of pay-for-performance plans. Organizations adopt alternative reward systems to increase domestic and international competition.

A promotion is the advancement of an employee's rank or position in an organizational hierarchy system. Promotion may be an employee's reward for good performance, i.e., positive appraisal. Before a company promotes an employee to a particular position it ensures that the person is able to handle the added responsibilities by screening the employee with interviews and tests and giving them training or on-the-job experience.

A promotion can involve advancement in terms of designation, salary and benefits, and in some organizations the type of job activities may change a great deal. The amount of salary increase associated with a promotion varies a great deal between industries and sectors, and depending on the parts of the hierarchical ladder an employee is moving between. In some industries or sectors, there may be only a modest increase in salary for promotions; in other fields, a promotion may substantially increase an employee's salary.

#### **MEANING**

Promotion refers to upward movement in present job leading to greater responsibilities, higher status and better salary. Promotion may be temporary or permanent depending upon the organizational requirement. According to Clothier and Spriegel, "promotion is the transfer of an employee to a job which pays more money or one that carries some preferred status."

#### **PURPOSE AND ADVANTAGES OF PROMOTION**

Promotion stimulates self-development and creates interest in the job. According to Yoder, "promotion provides incentive to initiative, enterprise and ambition; minimizes discontent and unrest; attracts capable individuals; necessitates logical training for advancement and forms an effective reward for loyalty and cooperation, long service etc." The purposes and advantages of promotions are to:

- Recognize employee's performance and commitment and motivate him towards better performance;
- Develop competitive spirit among employees for acquiring knowledge and skills for higher level jobs;
- Retain skilled and talented employees;
- Reduce discontent and unrest;
- To fill up job's vacant position that is created due to retirement, resignation or demise of an employee. In this case next senior employee will be promoted to the vacant job.
- Utilize more effectively the knowledge and skills of employees; and
- Attract suitable and competent employees.

#### EMPLOYEE REWARD AND RECOGNITION SYSTEMS

In a competitive business climate, more business owners are looking at improvements in quality while reducing costs. Meanwhile, a strong economy has resulted in a tight job market. So while small businesses need to get more from their employees, their employees are looking for more out of them. Employee reward and recognition programs are one method of motivating employees to change work habits and key behaviors to benefit a small business.

#### REWARD Vs. RECOGNITION

Although these terms are often used interchangeably, reward and recognition systems should be considered separately. Employee reward systems refer to programs set up by a company to reward performance and motivate employees on individual and/or group levels. They are normally considered separate from salary

but may be monetary in nature or otherwise have a cost to the company. While previously considered the domain of large companies, small businesses have also begun employing them as a tool to lure top employees in a competitive job market as well as to increase employee performance.

#### **DESIGNING A REWARD PROGRAM**

The keys to developing a reward program are as follows:

- Identification of company or group goals that the reward program will support
- Identification of the desired employee performance or behaviors that will reinforce the company's goals
- · Determination of key measurements of the performance or behavior, based on the individual or group's previous achievements
- Determination of appropriate rewards
- Communication of program to employees

In order to reap benefits such as increased productivity, the entrepreneur designing a reward program must identify company or group goals to be reached and the behaviors or performance that will contribute to this. While this may seem obvious, companies frequently make the mistake of rewarding behaviors or achievements that either fail to further business goals or actually sabotage them.

#### **TYPES OF REWARD PROGRAMS**

There are a number of different types of reward programs aimed at both individual and team performance.

#### Variable Pay

Variable pay or pay-for-performance is a compensation program in which a portion of a person's pay is considered "at risk." Variable pay can be tied to the performance of the company, the results of a business unit, an individual's accomplishments, or any combination of these. It can take many forms, including bonus programs, stock options, and one-time awards for significant accomplishments. Some companies choose to pay their employees less than competitors but attempt to motivate and reward employees using a variable pay program instead.

#### Bonus

Bonus programs have been used in American business for some time. They usually reward individual accomplishment and are frequently used in sales organizations to encourage salespersons to generate additional business or higher profits. They can also be used, however, to recognize group accomplishments. Indeed, increasing numbers of businesses have switched from individual bonus programs to one which reward contributions to corporate performance at group, departmental, or company-wide levels.

Bonuses are generally short-term motivators. By rewarding an employee's performance for the previous year, they encourage a short-term perspective rather than future-oriented accomplishments. In addition, these programs need to be carefully structured to ensure they are rewarding accomplishments above and beyond an individual or group's basic functions. Otherwise, they run the risk of being perceived of as entitlements or regular merit pay, rather than a reward for outstanding work. Proponents, however, contend that bonuses are a perfectly legitimate means of rewarding outstanding performance, and they argue that such compensation can actually be a powerful tool to encourage future top-level efforts.

#### **Profit Sharing**

Profit sharing refers to the strategy of creating a pool of monies to be disbursed to employees by taking a stated percentage of a company's profits. The amount given to an employee is usually equal to a percentage of the employee's salary and is disbursed after a business closes its books for the year. The benefits can be provided either in actual cash or via contributions to employee's 401(k) plans. A benefit for a company offering this type of reward is that it can keep fixed costs low.

The idea behind profit sharing is to reward employees for their contributions to a company's achieved profit goal.

#### Stock Options

Previously the territory of upper management and large companies, stock options have become an increasingly popular method in recent years of rewarding middle management and other employees in both mature companies and start-ups. Employee stock-option programs give employees the right to buy a specified number of a company's shares at a fixed price for a specified period of time (usually around ten years). They are generally authorized by a company's board of directors and approved by its shareholders. The number of options a company can award to employees is usually equal to a certain percentage of the company's shares outstanding.

Employee can purchase from the company an allotted number of shares at the strike price (or the fixed price originally agreed to). This purchase is known as "exercising" stock options. After purchasing the stock, the employee can either retain it or sell it on the open market with the difference in strike price and market price being the employee's gain in the value of the shares.

#### **OBJECTIVES OF THE STUDY**

- 1. To understand the concept of promotion and reward policy in general.
- 2. To recognize an employee's skill, knowledge and utilize them to improve the organizational effectiveness and in turn to attract, trained, competent and hardworking people
- 3. To reward and motivate employees to higher productivity
- 4. To increase employees satisfaction and boost their moral
- 5. To comply with legal regulation and give valuable suggestions for determining sound promotion and reward policy.

#### STATEMENT OF THE PROBLEM

In today's competitive business environment companies are facing many challenges and among those challenges acquiring right workforce and retaining it, is of utmost importance. Nowadays, human asset is considered to be the most important asset of any organization. In order to get the efficient and effective result from human resource, employee motivation is necessary. Employee will give their maximum when they have a feeling or trust that their efforts will be rewarded by the management. There are many factors that effect employee performance like working conditions, worker and employer relationship, training and development opportunities, job security, and company's overall policies and procedure for promoting and rewarding employees, etc. among all those factor which affect employee performance, promotion and reward is of utmost importance.

This study investigates the relationship between rewards, promotion and employee motivation which affects employee performance more specifically on the Reliance dyeing works, Tirupur.

#### **SCOPE OF THE STUDY**

It is necessary for any management to ensure that employees are satisfied with their job for the benefits of the organization. Promotion and reward policy will helps to employee growth and rise up the professional ladder. Growth gives hope of a better future which sustains a person to perform efficiently and enthusiastically it scientifically contributes towards employee's productivity and morale.

The present study has made an attempt to measure the employee's promotion and reward policy in reliance dyeing works this study has been conducted with 100 employees in the organization. This study mainly concentrates on studying promotion and reward policy measures provided by the company. For development and better satisfaction of the employees the company must concentrate on the dissatisfied area.

#### LITERATURE REVIEW

Jane (1873) though the promotion indicates that the employee is ready for more responsibility in the company and is mature enough to play a larger role in the business; a promotion may not be the result of any positive employee performance review, As the employer may not have that option each time.

(World at work, 2007). The main advantages of following a holistic approach towards reward system include enhancement of recruitment and selection activity, reduction in the fixed portion of the rewards system, developing employees, and increase in cooperation, inculcating creativity and innovation and reinforcement of good performance.

(Maire & Nick, 2002) Reward system helps to improve organizational performance as well as it fulfills other objectives such as legal compliance, labor cost control, perceived fairness towards employees and enhancement of employee performance to achieve high level of productivity and customer satisfaction.

Carraher et al (2006) advocate that there should be an effective reward system to retain the high performers in the organization and reward should be related with their productivity.

(Armstrong, 2002). o magnetize, retain, encourage and gratify these employees and includes all forms of investments Total rewards system is one of the recent developments in the field on human resource management and this concept is defined as using all the gears available to the company in order made in things that lead to employee satisfaction and are valued by the employees He further elaborates about the components of a total reward system and says that it consists of both financial as well as non financial rewards. Financial rewards encompass factors such as base and variable pay, employee stock ownership and financial benefits while on the other hand non financial rewards include acknowledgment, prospects to develop skills and quality of life.

**Tropman (2001)** The reward systems were simply known as pay and compensation packages however this term has evolved considerable over the years and has been termed as total compensation or total rewards. It has coined an innovative term for this total reward system and calls it cafeteria pay which is much more employee drive than its traditional counterpart. Reward systems should be viewed as a way in which the employees can be energized as even the most talented employees may not be able achieve full potential if they are not properly guided.

(Jensen, McMullen and Stark, 2007). A company's commitment to a total rewards system is a sign the company has recognized employees as its most important resource and that financial or tangible rewards alone are necessary but not enough to motivate employees. Total rewards are a broad concept and it has implications related to leadership, growth opportunities, and recognition and job enablement. These systems have been developed in response to factors such as the constant war for keeping employees and a diverse workforce with diverse needs.

**Armstrong (2010)** For organisations to achieve a highly committed business environment and its overall business goal, a reward strategy must be developed to ensure that the contribution people make to achieving organisational or team goals are valued, recognised and rewarded.

(Keller 1999) This definition points to an obvious desired outcome of rewards and recognition: to improve performance. Non-monetary recognition can be very motivating, helping to build feelings of confidence and satisfaction.

#### **RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve a research problem it may be understood as a science of studying how research is scientifically. It may be understood as a science of studying how research is done scientifically.

#### DATA COLLECTION

In dealing with any real life problem, it becomes the necessary to collect data that are appropriate. There are several ways of collecting the appropriate data which differ considerably in the context of money, efforts, time and other resources. This research uses both.

- Primary data
- Secondary data
- Primary data is collected through questionnaire and discussions with respective official or person concerned.
- Secondary data collection is made through various records, websites, journals and books

#### RESEARCH DESIGN

Research design is a frame work or plan for a study that guides the collection and analysis of data it is a blue print that is followed in completing a study. This study is based on descriptive research which includes a survey and fact finding enquires of different kinds. The major purpose of this research is description of the state of affairs as it exists at present.

#### **SAMPLE DESIGN**

Sample design is definite plan determine before data are actually collected for obtaining a sample technique. In this study convenience sampling methods have been adopted to select sample.

#### **SAMPLE TECHNIQUE**

All the items consideration in any field of inquiry constitutes a universe of population. In this research only a few items can be selected from the population for the study purpose. The items selected constitute what is technically called a sample. Here, well formulated 100 questionnaires circulated among various employees in the reliance dying works.

#### TOOLS FOR THE STUDY

The percentage analysis, ANOVA, correlation and regression test has been used for the analysis.

a) Simple percentage analysis: simple percentage analysis refers to a special kind of ratio with the help of absolute figures it will be difficult to interpret any meaning. From the calculated data, when percentage are found out then it would be easy to find the relative difference between two or more attributes

Percentage =		× 100
	Total respondents	

b) two-way analysis: In statistic the two way analysis of variance (anova) is extension of on one way anova that examine the influence of two different categorical independent variables one continuous dependent variable. The two way anova not only aims assessing the main effect of each independent variable but also if there is any interaction between them.

- c) Correlation: Pearson correlation was seen appropriate to analyze the relationship between the two variable which were interval-scaled and ratio scaled. Furthermore, correlation coefficients reveal magnitude and direction of relationships which are suitable for hypothesis testing, Pearson correlation is to test seven independence variables that influenced consumer brand loyalty and to test if a relationship existed between the independent and dependent variables.
- d) Regression: In statistics, regression analysis is a statistical process for estimating the relationship among variables. It includes many techniques for modeling and analyzing several variable, when the focus is on the relationship between a dependent variable and one or more independent variable
- e) ANOVA: A statistical method for making simulations comparisons between two or more means. A statistical method that yields value that can be tested to determine whether a significant relation exists between variables.

#### LIMITATIONS OF THE STUDY

Every study has certain limitation; some of these are inherent in the research design. The present study is subject to the following limitations:

- 1. The sample respondents of the study were restricted to 100.
- 2. The aims of study were restricted to tirupur city alone.
- 3. The data collected only on employees perspective
- 4. The study concentrates only the employee's promotion and reward policy it ignores employees welfare, safety etc.

#### FINDINGS AND SUGGESTIONS

#### **FINDINGS**

- It is clear that majority of the respondents are male (70%).
- It is clear that majority of the respondents are married (64%).
- In the survey majority of respondents (44%) belong to the age group of 26-35.
- It is found that are the majority of the respondents are UG qualified person.
- In this survey majority of the people earns above Rs 9000 as their income.
- Most of the people in the survey belongs to labor /clerical level (39%).
- It is understood that the frequency of performance appraisal is yearly (89%).
- 98% of people are satisfied with the performance appraisal system in company.
- 33% of people got promotion and 67% of people are not at all get any promotion.
- The career planning steps taken by the organization is satisfied by 93% of people.
- The main issue in getting promotion policy is non-exposure of his/her talent (65%).
- 87% of people satisfied with their present position in their company.
- The survey shows 47% of people ready to give (1-3 years) service in the organization.
- 87% of respondents opinion is individual (87%) reward plan.
- In this survey the majority of the respondents opinion is skill is the basis for reward system.
- Majority of respondent's expected 25% of bonus and commission.
- In this survey 83% of people are satisfied with the reward and incentive system in the organization.
- As per two way analysis majority of the respondent's opinion is the highest in case of non-exposure of his /her talent in appraising their performance.
- It is clear that majority of the respondents are satisfied with yearly performance appraisal.
- Based on ANOVA analysis it is found that there is no association between demographic factor and career planning. Practiced by the organization.
- It is conclude that there is no association between demographic factors and the level of satisfaction with promotion policy.
- As per regression analysis it is clear that there is no influence of the experience on reward system.
- As per correlation analysis there is relation between career planning, performance appraisal and promotion policy.

#### SUGGESTIONS

- Female category employees may be enhanced
- Promotion policy should enhanced in such a manner to increase the number of promotion because highest percentage of respondents still not get any
  promotion.
- Opportunities to be provided to everyone to expose their skill and talent.
- Attempt made to retain existing employees
- While formulating promotion policy all the criteria for promotion should be considered without any bias.
- Bonus rate is to be enhanced to some extent to fulfill the workers expectation.

#### CONCLUSION

This study made attempt to analyse the process of measuring promotion and reward policy of reliance dying works due to which has received great attention with increasing productivity Financial compensation is an important component of the reward system, but there are other factors that prompt employees to be motivated and influence their performance. In fact, several studies have reported that financial forms are not always the ones to be most recommended. In this context, several strategies can be defined to increase productivity. One is through the use of the indicators in a measurement program as a way to define promotion and reward system that may prompt the motivation of the employees. Promotion and Reward mechanisms aim to strengthen behaviors that should be implemented in an effective manner. That is, the achievement of goals of productivity and quality may be rewarded with a bonus these systems are intended to attract, retain and motivate people. But for a person to be motivated, he/she needs to give value to the result, needs to believe that additional effort will lead to better performance and that the better performance, subsequently, will result in some form of recompense or better result.

Reward systems, when properly set up, have proven to be an important tool for achieving organizational goals. It is essential to keep the plans simple in terms of following, measuring, understanding and managing them so as to increase the performance desired. In addition, the cost of measurement needs to be considered. The activities of identification, collection, analysis and dissemination of indicators can represent a high cost to the organization so that relevant indicators are, in fact, considered in the measurement system.

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#### **APPENDIX**

QUESTIONNAIRE

- 1. Name (optional)
- 2. Gender

Male

Female

3. Marital status

Married

Unmarried

4. Age group

Below 25 years 26 -35 years

36 - 45 years

above 45 years

```
5. Qualification
     SSLC
     HSLC
     UG
     PG
     Diploma
6. Experience
     Below 1 years
     2 -4 years
     4 - 6 years
     above 6 years
7. Monthly income
     Below Rs, 5000
     Rs, 5000-Rs, 7000
     Rs, 7000-Rs, 9000
     above Rs, 9000
8. What is your designation/position in the company?
     Labor/clerical level supervisory level
     Managerial level Administration level
9. What is the frequency of performance appraisal?
     Half yearly
     vearly
10. Does performance appraisal always lead to the hike of salary?
     Yes
11. Are you satisfied with the performance appraisal system in your company?
     No
12. Are you satisfied with career planning steps taken by your organization?
     Yes
     No
13. Do you get any promotion?
     Yes
     No
     If yes, mention the level from which you are promoted:
14. Are you satisfied with the promotion policy?
     Nο
15. Mention the main/important issue in getting promotion policy.
     Because of partiality non-exposure of his/her talent
     Date of joining others (specify)
16. Overall, how satisfied with your position at your company?
     Very satisfied
     Satisfied
     Dissatisfied
     Very dissatisfied
17. If satisfied, how long you like to work in the organization?
     1-3 years
     4-6 years
     7 - 9 years
     above 9 years
     Permanently
    a) what is the reward plan in your organization?
     Individual group
     b) Which type of reward has been given in your organization?
     Salaries raise Bonus/commission
     Promotion employee recognition
19. What is the basis of your reward system?
     Result and performance competence
     Skills others (specify)
20. What is your expected rate of bonus and commission?
     20%
     25%
     30%
     above 30%
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21. Are you satisfied with the reward and incentive system in your organization?

Yes No

#### A STATISTICAL STUDY ON CUSTOMERS LOYALTY OF MOBILE PHONE SERVICES

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#### **ABSTRACT**

Mobile phone communication is a piece of equipment for the valuable use of people. Though the mobile operators have been rendering services to their customers throughout India, it has become a goal of controversy due to various causes, such as, excess billing, disconnection while talking, cross talk while talking, high cost handset and high operating cost, full talk time and network coverage. Their services are not only praiseworthy, but also satisfying to the consumers to some level. Hence the service providers are facing challenges, not only from the competitors, but also from their customers. The customer's expectations and facts of the mobile phone service are also growing at the other hand. In this research article to assess the customers loyalty towards mobile phone services with appropriate statistical techniques.

#### **KEYWORDS**

customers, loyalty, mobile phones.

#### 1. INTRODUCTION

he telecommunications sector in India was liberalized in the early 1990s. Attack of private as well as foreign direct investment in the sector started afterwards. The mobile telecommunication service providers need to make customer satisfaction a strategic priority. The impact of service quality attributes on customer value, satisfaction, and loyalty. The object of the current research is the mobile telecommunication services in Kanyakumari District, Tamilnadu, India, in which the mobile telecommunication service customers will serve as unit analysis. In this paper mainly focused on customers' loyalty towards service rendered by mobile phone telecommunication.

The literature indicates that quality is a major determinant of satisfaction and has a positive relationship with satisfaction in both the short and long run (Oliver, 1997). Quality judgments should be based on consumer feedback and not on manufacturers' beliefs about product quality (Ozment & Morash, 1994; Gummeson, 1992). Quality is not a single-stimulus factor but a multi-stimulus factor (Devlin, Dong, & Brown, 1993). In addition to quality, non-quality dimensions (e.g., color of a car, shape of a mobile phone) may also play a role in forming consumers' satisfaction.

#### 2. OBJECTIVES OF THE STUDY

- 1. To categorize the service quality dimensions in the mobile telecommunications services sector.
- 2. To study whether the attributes can correlate relationships among service quality attributes, customer value, customer satisfaction, and customer loyalty.
- 3. To observe whether customer satisfaction plays mediating role in the relationships between customer value and customer loyalty.
- 4. To examine whether customer value/customer satisfaction play mediating role in the relationships between service quality attributes and customer loyalty.

#### 3. METHODS AND MATERIALS

It was an empirical study done undertaken at Kanyakumari District, Tamilnadu, India, in June 2016-December 2016. This study carried out under unknown population comprised of seven hundred and sixty three people have taken as respondents by using simple random sampling technique of the above mentioned area. A pre-designed questionnaire was used to collect the data. The questionnaire had various segments comprising; socio-demographic factors (gender, age, marital status, etc.), Purpose of using Mobile phone service, Media Exposure, Source of information about service provider, Variables influencing to choose service provider, Consumer expectations, Service Quality of Service Provider, Overall attitude towards service provider and Loyalty towards service provider.

Reliability analysis allows us to study the properties of measurement scales and the items that make them up. The Alpha (Cronbach) model is based on the average inter-item correlation. The results are presented in suitable hypothesis with relevant interpretations. It is found that the hypothesis is rejected (Significant) because p – value less than 0.05. It is concluded that there exists significant differences between the individual items in the scale. The number of cases are 50, Number of items are 75 and the coefficient of Alpha is 0.80 (i.e. 80%).

#### 4. STATISTICAL TOOLS FOR THE STUDY

#### a. Chi-square Analysis

The Chi square test is used in any study on social science and management for testing the independence of two attributes.

#### b. Factor Analysis

Factor analysis is a multivariate statistical technique used to condense and simplify the set of large number of variables to smaller number of variables called factors. This technique is helpful to identify the underlying factors that determine the relationship between the observed variables and provides an empirical classification scheme of clustering of variables into groups called factors.

#### c. Correlation Analysis

The correlation is the study of finding the relationship between the variables. If there are only 2 variables in the study of correlations there it is called simple correlation otherwise the study in either partial or multiple correlation.

#### 5. RESULTS OF THE STUDY

#### 5.a Chi-square analysis

From the results of chi-square analysis is presented by the attitude variables considered in the study. The Table 1.1 and Table 1.2 describe overall scores and the results of chi-square analysis in terms of personal variables, chi-square values, p values and their significance on utility of mobile phone service.

(i) To study the personal factors on utility of mobile phone service

Hypothesis: The personal factors have no significant influence on the opinion of the respondents on utility of mobile phone service related variables.

TABLE 1.1: OVERALL SCORES - PERSONAL VARIABLES ON UTILITY OF MOBILE PHONE SERVICE

Male	Low	Medium	High	Total		
Male	7.0			Total		
	76	276	49	401		
Female	65	234	63	362		
	141	510	112	763		
Below 20	30	102	28	160		
20-25	32	124	29	185		
25-30	30	125	23	178		
30-35	20	61	12	93		
35-40	21	72	14	107		
Above 40	8	26	6	40		
	141	510	112	763		
Illiterate	40	143	46	229		
Upto HSC	43	145	32	220		
UG	15	73	12	100		
PG	32	101	16	149		
Professional	11	46	6	63		
Others	0	2	0	2		
	141	510	112	763		
Self-Employment	12	38	4	54		
Salaried	41	164	33	238		
Business	47	147	45	239		
Student	31	150	28	209		
Others	10	11	2	23		
	141	510	112	763		
Nil		48	12	73		
Below Rs.10,000	34	132	24	190		
	50	234	56	340		
	33	77	18	128		
	11	19	2	32		
	141		112	763		
Single	82		68	487		
				276		
			112	763		
1-2				184		
				381		
				159		
			_	39		
			112	763		
1				295		
			_	223		
				190		
			_	55		
				763		
Below Rs.10.000				72		
				363		
				259		
Above Rs.30,000	16	44	9	69		
	141	510	112	763		
	20-25 25-30 30-35 35-40 Above 40  Illiterate Upto HSC UG PG Professional Others  Self-Employment Salaried Business Student Others  Nil Below Rs.10,000 Rs.10,001-Rs.15,000 Rs.15,001-Rs.20,000 Above Rs.20,000 Single Married  1-2 3-4 5-6 Above 6  1 2 3 Above 3  Below Rs.10,000 Rs.10,001-Rs.20,000 Rs.10,001-Rs.20,000 Rs.10,001-Rs.20,000 Rs.10,001-Rs.20,000	20-25       32         25-30       30         30-35       20         35-40       21         Above 40       8         I41         IIIIIterate       40         Upto HSC       43         UG       15         PG       32         Professional       11         Others       0         141       12         Salaried       41         Business       47         Student       31         Others       10         141       13         Below Rs.10,000       34         Rs.10,001-Rs.15,000       50         Rs.15,001-Rs.20,000       33         Above Rs.20,000       11         141       141         Single       82         Married       59         141       1-2         36       3-4         5-6       34         Above 6       9         141       1         47       2         39       3         51       Above 3         4       141 <tr< td=""><td>20-25       32       124         25-30       30       125         30-35       20       61         35-40       21       72         Above 40       8       26         141       510         Illiterate       40       143         Upto HSC       43       145         UG       15       73         PG       32       101         Professional       11       46         Others       0       2         141       510         Self-Employment       12       38         Salaried       41       164         Business       47       147         Student       31       150         Others       10       11         141       510         Nil       13       48         Below Rs.10,000       34       132         Rs.15,001-Rs.20,000       34       132         Rs.215,001-Rs.20,000       33       77         Above Rs.20,000       11       19         1-2       36       123         3-4</td><td>20-25         32         124         29           25-30         30         125         23           30-35         20         61         12           35-40         21         72         14           Above 40         8         26         6           141         510         112           Illiterate         40         143         46           Upto HSC         43         145         32           UG         15         73         12           PG         32         101         16           Professional         11         46         6           Others         0         2         0           141         510         112           Self-Employment         12         38         4           Salaried         41         164         33           Business         47         147         45           Student         31         150         28           Others         10         11         2           Nil         13         48         12           Nil         13         48         12</td></tr<>	20-25       32       124         25-30       30       125         30-35       20       61         35-40       21       72         Above 40       8       26         141       510         Illiterate       40       143         Upto HSC       43       145         UG       15       73         PG       32       101         Professional       11       46         Others       0       2         141       510         Self-Employment       12       38         Salaried       41       164         Business       47       147         Student       31       150         Others       10       11         141       510         Nil       13       48         Below Rs.10,000       34       132         Rs.15,001-Rs.20,000       34       132         Rs.215,001-Rs.20,000       33       77         Above Rs.20,000       11       19         1-2       36       123         3-4	20-25         32         124         29           25-30         30         125         23           30-35         20         61         12           35-40         21         72         14           Above 40         8         26         6           141         510         112           Illiterate         40         143         46           Upto HSC         43         145         32           UG         15         73         12           PG         32         101         16           Professional         11         46         6           Others         0         2         0           141         510         112           Self-Employment         12         38         4           Salaried         41         164         33           Business         47         147         45           Student         31         150         28           Others         10         11         2           Nil         13         48         12           Nil         13         48         12		

Source: primary data

TABLE 1.2: CHI SQUARE VALUES – PERSONAL VARIABLES ON UTILITY OF MOBILE PHONE SERVICE

Personal variables	Chi-square Value	p values	Significant/ Not Significant
Gender	4.08	0.130	NS
Age	3.32	0.973	NS
Education	12.08	0.280	NS
Occupation	19.00	0.015	S
Personal Income	15.30	0.054	NS
Marital status	3.55	0.169	NS
Size of family	3.51	0.743	NS
Number of family members (earning)	18.22	0.006	S
Monthly family income	3.89	0.692	NS
	Gender Age Education Occupation Personal Income Marital status Size of family Number of family members (earning)	Gender       4.08         Age       3.32         Education       12.08         Occupation       19.00         Personal Income       15.30         Marital status       3.55         Size of family       3.51         Number of family members (earning)       18.22	Gender       4.08       0.130         Age       3.32       0.973         Education       12.08       0.280         Occupation       19.00       0.015         Personal Income       15.30       0.054         Marital status       3.55       0.169         Size of family       3.51       0.743         Number of family members (earning)       18.22       0.006

S – Significant at 5% level (p value<= 0.05); NS – Not Significant at 5% level (p value>0.05)

It is found from the Table 1.2 that the hypothesis is rejected (Significant) in two cases and other cases are accepted (Not significant). It is concluded that the personal factors 'Occupation' and 'Number of family members (earning)' have significant influence on the utility of mobile phone service in the study of customer loyalty towards mobile phone services among people in Kanyakumari District.

#### 5.b Factor Analysis

Factor Analysis is primarily used for data reduction or structure detection. The purpose of data reduction is to remove redundant (highly correlated) variables from the data, perhaps replacing the entire data with a smaller number of uncorrelated variables.

The purpose of structure detection is to examine the underlying (or latent) relationships between the variables. The factor analysis procedure has several extraction methods for constructing a solution.

#### i. Kaiser-Meyer-Olkin Measure of Sampling Adequacy

The significance (0.00) is less than the assumed value (0.05) & KMO coefficient = 0.696. This implies that the factor analysis is valid.

TABLE 1.3: ROTATED FACTOR LOADINGS FOR LEVEL OF UTILITY OF MOBILE PHONE SERVICE

TABLE 1.3. ROTATED TACTOR LOADINGS TOR LEVEL OF OTHER TO MIGDLE THORE SERVICE								
Variables of utility of mobile phone service	F1	F2	F3	F4	Communality			
Security (A1)	-0.26	0.48	0.34	0.22	0.47			
SMS (A2)	0.08	-0.09	0.78	0.02	0.62			
Official (A3)	-0.07	-0.09	-0.05	0.76	0.60			
Touch with friends and Relatives (A4)	0.07	0.14	0.72	-0.06	0.55			
Symbol of Status (A5)	0.24	0.30	0.02	0.51	0.40			
Convenience (A6)	0.04	0.73	0.00	-0.18	0.56			
Low cost (A7)	0.23	0.64	-0.01	0.15	0.48			
Passion (A8)	0.65	-0.12	0.06	0.26	0.51			
STD Calls (A9)	0.67	0.16	-0.13	-0.08	0.50			
Dissatisfaction with land line (A10)	0.59	-0.03	0.17	0.30	0.47			
Multipurpose (A11)	0.70	0.08	0.03	-0.15	0.52			
Easy to contact (A12)	0.58	0.11	0.09	0.01	0.36			
Eigen value	2.41	1.41	1.15	1.07				
% of var. explained	20.05	11.73	9.56	8.87	50.21			
Cum. % explained	20.05	31.78	41.34	50.21				

Table 1.3 gives the rotated factor loadings, communalities, Eigen values and the percentage of variance explained by the factors. Out of the 12 variables associated with the utility of mobile phone service, 4 factors have been extracted and these 4 factors put together explain the total variance of these variables to the extent of 50.21%. In order to reduce the number of factors and enhance the interpretability, the factors are rotated. The rotation increases the quality of interpretation of the factors. There are several methods of the initial factor matrix to attain simple structure of the data. The varimax rotation is one such method to obtain better result for interpretation is employed and the results are given in Table 1.4.

**TABLE 1.4: CLUSTERING OF UTILITY OF MOBILE PHONE SERVICE** 

Factors	Utility of mobile phone service	Rotated factor loadings
	A8	0.65
	A9	0.67
Factor I (20.05%)	A10	0.59
	A11	0.70
	A12	0.58
	A1	0.48
Factor II (11.73%)	A6	0.73
	A7	0.64
Factor III (0 F60/)	A2	0.78
Factor III (9.56%)	A4	0.72
Factor IV (8.87%)	A3	0.76
Factor IV (6.67%)	A5	0.51

Five factors were identified as being maximum percentage variance accounted. The five variables A8, A9, A10, A11 and A12 were grouped together as factor I and accounts 20.05% of the total variance. The three variables A1, A6 and A7 constituted the factor II and accounts 11.73% of the total variance. The two variables A2 and A4 constituted the factor III and accounts 9.56% of the total variance. The two variables A3 and A5 constituted the factor IV and accounts 8.87% of the total variance.

The five variables of utility of mobile phone service such as Passion (A8), STD Calls (A9), Dissatisfaction with land line (A10), Multipurpose (A11) and Easy to contact (A12) were grouped together as factor I and accounts 24.2% of the total variance.

#### ii. Correlation Analysis

The correlation is the study of finding the relationship between the variables. If there are only 2 variables in the study of correlations there it is called simple correlation otherwise the study in either partial or multiple correlation. In this study the simple inter-correlations analysis is performed between the selected variables and the results are presented in the form of correlation matrix. Further the significance of correlation was tested at the 1% level of significance.

In this section the results of inter-correlation analysis between the variables of utility of mobile phone service as factor I are presented through correlation matrix. The results of the inter-correlation analysis with its significance are presented in the form of correlation matrix.

It is found that the entire variables of utility of mobile phone service on the basis of factor I considered have significant inter-correlation.

It is concluded that the variables of utility of mobile phone service such as Passion (A8), STD Calls (A9), Dissatisfaction with land line (A10), Multipurpose (A11) and Easy to contact (A12) have significant interrelationship between them.

#### 6. CONCLUSION

The results obtained in this study accept the model and hypotheses proposed therein. The results of the study showed that the personal factors 'Occupation' and 'Number of family members (earning)' have significant influence on the utility of mobile phone service. Furthermore, the research contributes to the five variables of utility of mobile phone service such as Passion, STD Calls, Dissatisfaction with land line, Multipurpose and Easy to contact were grouped together as factor I and accounts 24.2% of the total variance. This research, however, evaluated the variables influencing customer loyalty of phone services in the context of Kanyakumari District. The findings of the correlation analysis showed that the above variables also have significant interrelationship between them. The service quality had the strongest total effect on customer loyalty. These results suggest that customer loyalty is most significantly affected by the high quality service. Finally, the results of this study can assist researchers and academicians to understand the impact these variables have on the customer's intention to change service provider and the correlation between these factors.

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#### A STUDY ON CONSUMER SATISFACTION TOWARDS ORGANIC FOOD PRODUCTS IN COIMBATORE CITY

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#### **ABSTRACT**

Organic farming system in India is not new and is being followed from ancient time. The demand for organic foods is increasing day by day. Worldwide consumers are becoming health conscious and are concerned about nutrition and the quality of food consumed. Consumers are also increasingly concerned with the food safety and the consumers are getting health conscious and are paying more attention to quality of food consumed. The present study aims at analysing the factors affecting satisfaction of consumers on organic food products. Using a well- structured survey of 550 respondents covering the Coimbatore city, Tamil Nadu. Suitable statistical tools have followed for analysis on consumer satisfaction.

#### **KEYWORDS**

organic farming, consumer satisfaction, health conscious, quality of food.

#### **INTRODUCTION**

rganic farming system in India is not new and is being followed from ancient time. It is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (bio fertilizers) to release nutrients to crops for increased sustainable production in an eco-friendly pollution free environment. As these food products are fresh, hygienic and healthy. Over the past decades, organic farming has experienced a considerable rise in most of the industrialized countries. The demand for organic foods is increasing day by day. Organic farming system in India is not new and is being followed from ancient time. The demand for organic foods is increasing day by day. Worldwide consumers are becoming health conscious and are concerned about nutrition and the quality of food consumed. Consumers are also increasingly concerned with the food safety and the consumers are getting health conscious and are paying more attention to quality of food consumed.

#### **REVIEW OF LITERATURE**

- 1. Rupesh Mervin and R.Velmurugan (2013) in their study ascertained that consumers attitude towards organic foods depends on gender, monthly income, area of residence and state of health.
- 2. Rupesh Mervin and R.Velmurugan (2013) in their study ascertained that consumer's preference towards organic foods depends on gender, age, occupation, monthly income, family status and level of awareness towards organic foods.
- 3. Hasnelly, Eddy Yusuf, (2012) in their study captioned, that the result of the review obtained from the research objectives above are expected to make an approach which is applicable in solving the problems faced by companies, especially the organic products companies, and other similar companies in general, especially those dealing with the market based consumer's value and satisfaction, also the consumer's loyalty.
- 4. Eva Sternfeld (2009) in her study at present organically grown food "made in China" is still a small though fast growing sector. The article takes a look at the development and current status of organic agriculture and organic food industry in China and discusses the prospects and limitations of the sector.
- 5. Frederike Lülfs-Baden, Achim Spiller, Anke Zühlsdorf and Matthias Mellin, (2008) in their study have indicated the importance of direct marketing for high quality farm products has increased during the past few years. The results emphasize the role of store atmosphere, consumer service and product quality as the main factors which influence consumer satisfaction.
- 6. Ramu Govindasamy, Marc DeCongelio, John Italia, Barbour, Karen Anderson (2001) in their research work "Empirically Evaluating Consumer Characteristics and Satisfaction with organic products" have stated that the consumers are willing to pay a premium of 20% or more for organic produce than conventional produce. They prefer to buy from the super markets.

#### **NEED/IMPORTANCE OF THE STUDY**

- 1. This study will point out the consumer satisfaction towards organic products.
- 2. This study will try to answer, how the consumer are satisfying with the organic products in Coimbatore?

#### STATEMENT OF THE PROBLEM

Though the price is high, consumers are satisfied with the organic products because of the quality and increasing health concerns in the last few years, consumers start preferring organic products has attracted growing research attention. The consumer's satisfaction is one of the curial factors to predict the consumers purchase tendency. So, the researcher is trying to describe the consumer's satisfaction towards organic food products in Coimbatore city.

#### **OBJECTIVES**

- 1. To measure the Consumer Satisfaction towards the organic products.
- 2. To suggest suitable measures thereof.

#### **RESEARCH METHODOLOGY**

#### AREA OF THE STUDY

The area of the study is confined to Coimbatore city.

#### SOURCES OF DATA

The primary data have been gathered directly from the respondents using through a structured questionnaire/interview schedule.

The secondary data have been gathered from journals, Magazines and websites.

#### SAMPLING DESIGN OF THE STUDY

Convenient Sampling technique was used to select the respondents.

#### **TOOLS FOR ANALYSIS**

Regression Analysis

#### **RESULTS & DISCUSSION**

In order to find out the variables that determine consumer satisfaction, all the variables included for correlation analysis have been regressed on consumer satisfaction index. The following regression equation has been framed to ascertain the impact of the variables on consumer satisfaction.

CS =	= a	+	$b_1$	AOR	+	$b_2$	G	+	$b_3$	AG	+	b <sub>4</sub>	EQ	+	$b_5$	OCC	+	$b_6$	TOF	+	$b_7$	SIF
+ b <sub>8</sub>	NEM	+	$b_9$	MI	+	$b_{10}$	FI	+	$b_{11}$	FE	+	$b_{12}$	POU	+	$b_{13}$	KT+	b <sub>14</sub>	CME	+	b <sub>15</sub>	BA	+
$b_{16}FA + b_{17}$	CB + e																					
where,																						
CS		=		Consun	ner Sa	atisfacti	ion															
а		=		Interce	pt Te	rm																
b <sub>1</sub> b <sub>17</sub>		=		Regress	sion C	oefficie	ents															

 OCC
 =
 Occupation

 TOF
 =
 Type of Family

 SIF
 =
 Status in Family

NEM = Number of Earning Members

MI Monthly Income Family Income FI = Family Expenditure POU = Period of Usage KT Kilometers Traveled CME = Car Maintenance Expenditure ΒA **Brand Awareness** FΑ = Feature Awareness

FA = Feature Aw:
CB = Car Brand
e = Error Term

Determinants of Consumer Satisfaction - Multiple Regression Analysis.

#### TABLE 1

Variables	Regression coefficient	Standard error	t
Gender	-2.873**	0.835	-3.440
Age	0.023	0.037	0.622
Marital Status	-0.336	0.898	-0.374
<b>Educational Qualification</b>	0.147	0.307	0.479
Occupation	0.679**	0.202	3.369
Monthly Income	0.000	0.000	-0.395
Family Income	0.000*	0.000	2.418
Family Expenditure	0.000	0.000	-1.828
Type of Family	0.332	0.760	0.437
Status in Family	0.148	0.886	0.167
Look after Food Labels	-0.505	0.817	-0.619
Period of Consumption	0.855	0.450	1.899
Organic Foods Consumed	0.062	0.263	0.237
Frequency of Consumption	-0.785*	0.382	-2.052
Level of Awareness	0.189**	0.026	7.357
Level of Perception	0.437**	0.033	13.393

<sup>\*</sup> Significant at five per cent level \*\* Significant at one per cent level

Constant : 33.131
Std. Error of Estimate \_\_ : 4.093
R<sup>2</sup> : 0.513
R<sup>2</sup> : 0.527\*\*

#### GENDER

The regression coefficient indicates that gender negatively influences consumers satisfaction. Male consumers have high level of satisfaction.

#### OCCUPATION

The regression coefficient indicates that occupation positively influences consumer's satisfaction. Agriculturists have high level of satisfaction.

#### FAMILY INCOME

The regression coefficient indicates that family income positively influences consumer's satisfaction. Consumer's whose family income ranges above Rs. 60000 have high level of satisfaction.

#### FREQUENCY OF CONSUMPTION

The regression coefficient indicates that frequency of consumption negatively influences consumer's satisfaction. Consumer's who consume organic foods several times in a week have high level of satisfaction.

#### LEVEL OF AWARENESS

The regression coefficient indicates that level of awareness positively influences consumer's satisfaction. Consumer's who have high level of awareness on organic foods have high level of satisfaction.

#### **LEVEL OF PERCEPTION**

The regression coefficient indicates that level of perception positively influences consumer's satisfaction. Consumer's who have high level of perception on organic foods have high level of satisfaction.

The value of R2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. Around 52.70 per cent of variation in level of satisfaction is due to the select variables.

#### **RECOMMENDATIONS/ SUGGESTIONS**

- If price organic food product will reduce consumer will more satisfied.
- > The Government can give subsidy for the organic food production.
- Consumers will increase if they get the organic products at subsidized rates.

#### CONCLUSION

The organic food industry, that organic food is safer, more nutritious, and tastes better than conventional food. These beliefs have fueled increased demand for organic food despite higher prices. The consumers will get more satisfaction if the products will get in a concessional price with the same quality.

#### **LIMITATIONS**

- 1. The time was very limit to conduct the research on the selected topic.
- 2. With respect to actual population the sample size was small.

#### SCOPE FOR FURTHER RESEARCH

The food product consumption which forms the healthy side of life through Organic food products, that replaces the artificial maturing which causes innumerable diseases to the immune system of the children to the grown-up. Thus, considerable research support will be necessary in the future to develop production techniques that will allow for the successful production of organic crops on a wider scale than is possible today.

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#### **FACTORS INFLUENCING CUSTOMER LOYALTY: A STUDY ON ORGANISED FOOD & GROCERY OUTLETS**

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#### **ABSTRACT**

Indian retail industry is witnessing a tremendous change with a growing middle class and rapidly increasing consumer spending, India overtakes China for the number one spot in this year's Global Retail Development Index (GRDI). The conditions for retailers in India are favourable and will continue to provide strong fundamentals. The Gross Domestic Product (GDP) is to grow by 7.4 percent in 2017 and 7.6 percent in 2018, which will help to boost the middle class and increase consumer spending beyond the essentials. These trends are expected to help organised retail double in size by 2020. Food & Grocery holds a major portion of Indian household consumption that is dominated by unorganised retailers. Despite stiff competition, customers are influenced by many factors, which drive them towards organised retail stores. A sample of 260 customers was selected from Coimbatore District by using convenience-sampling technique. Hence, this study set out to find the factors by applying factor analysis that influences customer loyalty towards organised food and grocery stores. Finding revealed that four factors, namely, personalised service and location, Price and quality policy, store atmosphere and facilities and attractive offers influenced customer loyalty towards organised Food and Grocery stores.

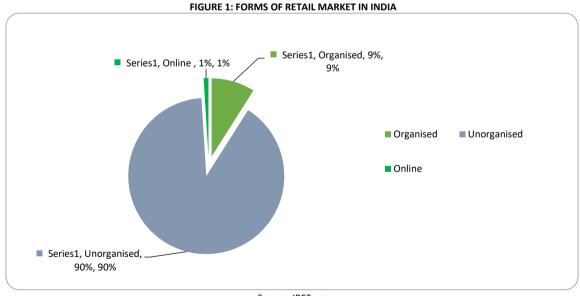
#### **KEYWORDS**

customer loyalty, food and grocery, organised retail, factors analysis.

#### **INTRODUCTION**

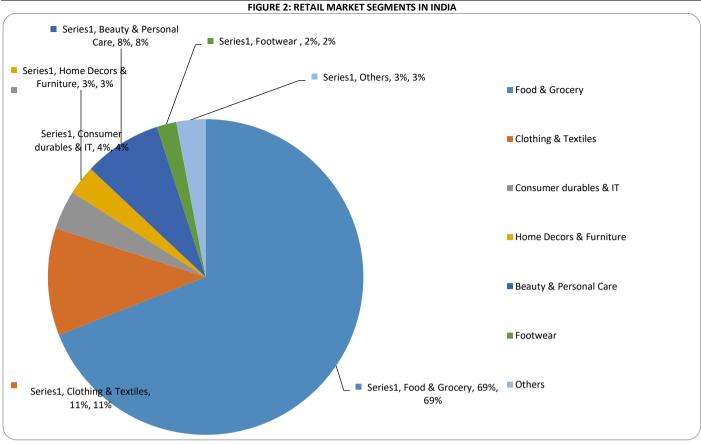
Indian retail industry is large among all the industries, and it has emerged as one of the most dynamic and fast – paced industries due to the entry of several new players. With a growing middle class and rapidly increasing consumer spending, India overtakes China for the number one spot in this year's Global Retail Development Index (GRDI). The conditions for retailers in India are favourable and will continue to provide strong fundamentals. The GDP is forecast to grow 7.4 per cent in 2017 and 7.6 per cent in 2018, which is helping boost the middle class and increase consumer spending beyond the essentials. These trends are expected to help organised retail double in size by 2020 (GRD Index, 2017).

Retail industry can be broadly classified into two categories namely- organised and unorganised retail. Organised retailers are licensed for trading activities and registered to pay taxes to the government. Unorganised retail consists of unauthorised small shops - conventional Kirana shops, general stores, corner shops among various other small retail outlets - but remain as the radiating force of Indian retail industry (Anasua, 2013).



Source: IBEF.org

The retail industry in India is dominated by unorganised retail, accounting for more than (85%) of the total retail value, out of which (60-65%) comprises of Food and grocery business. Traditional retailers will continue to dominate the market even in 2025. Whereas, (15%) accounted for organised retail includes Food and Grocery retail business. Organised sector is growing at a faster rate, and penetrate the markets deeper, and by 2025, it is expected to capture at least 3.2 per cent of the food and grocery market and be worth INR 340,000 crore, growing at a CAGR of 22.5 per cent from current levels to be competitive in the market.(Image Retail, 2016).



Source: IBEF.org

Food and Grocery (F&G) forms the backbone of the Indian retail sector. With present market size at estimated US\$ 455 billion (Rs 30,464 billion), the category will continue to grow at about 15 per cent per annum over the next decade. As a result, for the foreseeable future, food & grocery retail is expected to dominate the market with more than (50%) share of the overall retail market.

India's Food and Grocery retail market offers one of the largest opportunity areas for business. It will continue to grow at about 15 per cent per annum over the next five years and will dominate the overall retail market. As per the findings of the 2016 edition of the India Food Report, the food and grocery retail market is expected to reach Rs 109,00,000 crore by 2025, with a growth rate of 15 per cent per annum. (India Food Report, 2016).

The retailer today faces a knowledgeable and demanding consumer. The customer demands convenience and a certain level of comfort while shopping. The time required to shop and to travel to a particular location, product variety, accessibility, offers and so on the important factors that lead to customer satisfaction and loyalty. Hence, this study has been conducted to identify the key factors, which determines customer loyalty towards organised food and grocery retail stores.

#### **REVIEW OF LITERATURE**

Bharat and Bhusan (2011) in their research paper entitled 'Factors Affecting Consumer Preferences of Shopping at Organised Retail Stores in Punjab', focus on the major attributes of the retail stores as perceived by the consumers of Punjab. 50 organised retail stores were selected in five selected cities for data collection. One-hundred consumers were interviewed from sampled organised outlets adopting the systematic random sampling procedure in each selected urban city of Punjab. Over 500 consumers were interviewed at the selected stores in five selected cities. Four-hundred and seventy-five usable questionnaires were analysed using factor analysis. The study reveals that there are six major factors preferred by consumers are availability and variety, service, ambience, discount & price, quality of product and promotion.

Shishma and Mohender (2011), in their research paper entitled 'Customer Perception in Indian Retail Industry (A Comparative Study of Organised and Unorganised Retail Industry)', aims at finding out the factors influencing customer perception in organised and unorganised retail industry in Delhi. Primary data were collected from 300 customers using convenient sampling method and statistical tools such as factor analysis, One-sample t-test and correlation was applied to test the hypothesis. The study concludes that customers perception on the organised retail sector was better when compared to the unorganised retail sector, but there are certain factors which are not letting the organised retail sector to be catering the maximum share of unorganised retail stores in India.

Aniali (2013) in her research work entitled 'Customer Patronage towards Food and Grocery Retail- A Case Study', attempts to find out the decision variables which influence the selection of a traditional outlet or a new store for the purchase of food and grocery items. 387 customers of organised and unorganised retail stores were interviewed, and paired sample t-test was applied to test the hypothesis. This study concludes that an important factor which can lead to increased patronage at the new retailers is customer relationship management activities such as loyalty bonus/discounts, special customer cards, free parking facility and so on.

Dharmesh (2013) in his study entitled 'An Empirical Study of Customer Expectation and Perception in Organised Retail Sector', attempts to identify the difference between expectation and perception of customers of organised retail stores. The study was carried out with a sample of 120 respondents, and convenient sampling method was used to select the sample size. Arithmetic means z-test and SERVQUAL model was applied to find out the gap between customers' expectation and perception. This study identifies the gap between customers' expectation and perception was identified, which revealed dissatisfaction among customers.

Satendra, Rajeev and Jyoti (2011) in their article entitled 'Perception of Consumers towards Shopping Mall - A Case Study With Reference to Aligarh and Mathura City', attempts to find customers perception towards shopping malls and to suggest the way by which the shopping mall can improve their market share. For the study, data was collected from 50 customers of Aligarh and Mathura using non-probability sampling. This study concludes that by way of excellent customer service a retailer can make their clients as regular customers and also refer their retailers to others.

Hemraj and Pankaj (2011) in an article entitled 'Factors Analysing the Store Attributes to Identify Key Attributes of Store Image. (A Study on some selected Apparel Stores in India)', tries to understand the key store attributes that affect perceived image of apparel stores and also to find how customers perception vary by type of apparel stores. Systematic Sampling technique was used to select 345 respondents, 15 each from 23 apparel stores of three cities. Frequencies, Percentages, Arithmetic Averages, Standard Deviations, Correlation, Regression, One-way ANOVA and Factor Analysis were used to analyse the data. This study finds that store's product and operational quality was the most significant factor in creating high store image.

Phansawat (2015) in his article entitled 'Factors Affecting Traditional Retail Stores Competitiveness in Chiang Mai, Thailand', attempts to study the way traditional retail stores in Chiang Mai operate the businesses and to find out what factors affecting traditional retail stores competitiveness. Data were collected from 400 retail store customers using accidental sampling and ten retail store owners by using purposive sampling. ANOVA, t-test and multiple regressions were applied to the collected data to test the hypothesis. This study finds that traditional retail stores in Chiang Mai are preferred by the majority of the customers due to service of employees, characteristics of goods, location and layout of stores and arrangement of goods. In addition, the study concludes that the traditional retailers should develop certain strategies that can fully meet the expectation of their customers.

Anne-Sophie (2008) in her research article entitled 'Exploring the Relationships between Retail Brands and Consumer Store Loyalty', tries to explore the relationship between retail brands and store loyalty. This study reveals that increase in retail brand satisfaction and loyalty influences store loyalty and the study also highlight the value of consumer retail brand satisfaction and loyalty, and provide suitable suggestion to the managers to develop marketing insights to enhance the loyalty-building capacity of their brands.

Mithilesh and Rajesh (2015) in their research work entitled 'Factors Influencing The Buying Behaviour of Consumers Towards Organised Retail Stores in Jalandhar, Punjab', try to assess the critical factors that affect the consumers buying decision towards organised retail stores in Jalandhar. The direct survey method was used to collect the data, and the data were analysed with the help of Kolmogorov-Smirnov test, Friedman test and Kandall's-W test. This study finding reveals that store and environment are the two factors which significantly influence the consumer buying behaviour.

#### STATEMENT OF THE PROBLEM

India is termed as a nation of shopkeepers with about 15 million retail outlets of all kinds, but it is dominated by small neighbourhood grocery stores termed as Kirana stores (Aniali, 2013). The customers prefer traditional retailers such as Kirana stores regarding location, personalised service, the supply of goods on credit, which results in stiff competition among organised and unorganised retailers. In this competitive world, with increasing number of retail stores, the retailers need to be more customer oriented and need to be more updated about changing needs of the consumer. Understanding customer and knowing their preference is not an easy task because consumer today is more conscious, confident and much more demanding (Aamir and Subash, 2015). In this context, organised retailers should understand why customer prefers the particular store and what customers are expecting from the retailers. This will help the retailers to come out with more innovative ideas and services, which in turn will wean away a customer from another store, and in the same way, it contributes to retail the customers. Considering the above this study aimed to find the factors that influence the customers to shop at a particular retail store.

#### **OBJECTIVES**

- 1. To find out the socio-economic profile of the customers of organised food and grocery stores.
- 2. To analyse the factors influencing customer loyalty towards organised food and grocery stores.

#### **RESEARCH METHODOLOGY**

The study covers organised food and grocery stores in Coimbatore District. The respondents were customers of organised food and grocery stores. This study includes both primary and secondary data. The primary data was collected from a sample of 260 customers by adopting convenience-sampling technique. Statistical tools such as Simple percentage and factor analysis applied to analyse the data.

### RESULTS AND DISCUSSION FREQUENCY DISTRIBUTION

**TABLE 1: DEMOGRAPHIC PROFILE OF THE CUSTOMERS** 

S. No.	Demographics	Group	Frequency (N=260)	Percentage
١.	Gender	Male	138	53.1
I Gender		Female	122	46.9
		Married	202	77.7
II	Marital Status	Unmarried	57	21.9
		Others	1	.4
		Below 25	48	18.5
		26 - 35	71	27.3
Ш	Age	36 - 45	71	27.3
		46 -55	60	23.1
		56 & Above	10	3.8
		No formal education	27	10.4
	Educational Qualification	School level	81	31.2
v		Under Graduation	85	32.7
		Post-Graduation	53	20.4
		Professional	14	5.4
		Agriculture	45	17.3
		Business	31	11.9
VI	Occupational Status	Employed	109	41.9
		Professional	22	8.5
		Home Makers	53	20.4
		Below Rs 10,000	64	24.6
		Rs 10,001 -20,000	83	31.9
VII	Monthly Family Income	Rs 20,001 - 30,000	47	18.1
		Rs 30,001 - 40,000	35	13.5
		Above Rs 40,001	31	11.9

Table 1 presents demographic characteristics of the customers. Of the 260 customers, 138 (53%) are male, and the rest 122 (47%) are female. Marital status of the customers shows that 202 (78%) are married. Age distribution of the sample indicates that 71 (27%) majority of the customers' falls under the age group between 26-35 Years and 36-45 years respectively. About 85 (33%) of the customers are undergraduate. Occupational status of the customers reveals that 109 (42%) of the customers are employed, and majority 83 (32%) of the customers earns income ranging from Rs.10,001-20,000.

#### FACTOR ANALYSIS

Factor Analysis is applied to reduce the complexity of data. When there are more variables on a phenomenon under study, then identifying one, two or few variables that influence the phenomenon under study is complex. There the variables are to be reduced into few factors (Latent Variables) which can be taken as constructs (factors) that influence the phenomenon under study.

Using SPSS software, these factors can be obtained. The following tables explain the steps to get the factors.

KMO – Bartlett measure of sampling adequacy is an index used to test the appropriateness of the factor analysis. The KMO is 0.821, and the chi-square statistics is significant (<0.05). This means the factor analysis is appropriate for this data.

#### **TABLE 2: KMO AND BARTLETT'S TEST**

Kaiser-Meyer-Olkin Measure	.821	
Bartlett's Test of Sphericity	694.230	
	df	78
	Sig.	.000

Extraction communalities are estimates of the variance in each variable accounted for by the components. The communalities in the following table are all high, which indicates that the extracted components represent the variables as well.

**TABLE 3: EXTRACTION COMMUNALITIES** 

	Initial	Extraction
Reasonable price	1.000	.358
Availability of all branded merchandise	1.000	.442
Extended parking area	1.000	.581
High quality of the Merchandise	1.000	.706
Convenient location of the store	1.000	.611
Customer loyalty program	1.000	.483
Personalised attention /friendliness of sales	1.000	.658
Frequent promotional offers	1.000	.677
Accessibility (Self Service)	1.000	.578
Store Ambiance & Cleanliness	1.000	.610
Availability of refreshments and entertainments facility	1.000	.583
Handling complaints /Queries	1.000	.632
Information about new arrivals	1.000	.661

The percentage of total variance contributed by the components is given in the following table. The percentage of total variance contributed by the first components is 32.479%, by the second component is 10.246%, by the third component is 7.852% and by the fourth component is 7.718%. Thus there are four components for the given set of variables.

**TABLE 4: TOTAL VARIANCE EXPLAINED** 

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.222	32.479	32.479	4.222	32.479	32.479	2.236	17.202	17.202
2	1.332	10.246	42.725	1.332	10.246	42.725	1.929	14.838	32.040
3	1.021	7.852	50.576	1.021	7.852	50.576	1.744	13.416	45.457
4	1.003	7.718	58.295	1.003	7.718	58.295	1.669	12.838	58.295
5	.917	7.055	65.350						
6	.870	6.692	72.042						
7	.758	5.830	77.872						
8	.657	5.055	82.927						
9	.530	4.080	87.007						
10	.518	3.984	90.992						
11	.422	3.249	94.241						
12	.391	3.010	97.250						
13	.357	2.750	100.000						

The rotated component matrix gives the variables belonging to each component. The maximum of each row (ignoring –ve sign) indicates that the respective variable belongs to the respective component.

**TABLE 5: ROTATED COMPONENT MATRIX** 

	Component			
	1	2	3	4
Information about new arrivals	.761	.016	.170	.229
Handling complaints / Queries	.691	.165	.350	.062
Personalised attention /friendliness of sales	.647	.043	042	.486
Convenient location of the store	.553	.455	.065	307
Customer loyalty program	.486	.413	.058	.269
High quality of the Merchandise	.156	.808	.027	.167
Extended parking area	.001	.689	.321	.058
Reasonable price	.127	.450	.187	.323
Store Ambiance & Cleanliness	.051	.077	.775	012
Availability of refreshment and entertainment facility	.162	.127	.708	.200
Availability of all branded merchandise	.224	.351	.514	.061
Accessibility (Self Service)		.157	.016	.740
Frequent promotional offers	.307	.151	.278	.695

Based on the rotated component matrix four factors and its underlying items are summarised as follows:

#### TABLE 6: FACTORS EXTRACTED FROM FACTOR ANALYSIS

S.No	Factor Name	Variable Included
		Information about new arrivals
		Handling Complaints / Queries
F1	Personalised service & Location	Personalised attention /friendliness of sales
		Convenient location of the store
		Customer loyalty program
	Price and Quality policy	High quality of the Merchandise
F2		Extended parking area
		3. Reasonable price
		Store Ambience & Cleanliness
F3	Store atmosphere & Facilities	2. Availability of refreshments and entertainments facility
		3. Availability of all branded merchandise
F4	Attractive offers	Accessibility (Self Service)
F4	Attractive oriers	Frequent promotional offers

#### **FINDINGS**

- Majority (47%) of the customers are male.
- Majority (78%) of the customers selected are married.
- Majority (27%) of the customers selected are in the age group of 26-45 years.
- Majority (33%) of the customers are undergraduates.
- Majority (42%) of the customers selected are employed.
- Majority (32%) of the customers selected earn income between Rs.10000 to Rs.20000 per month in a family.
- The result of factor analysis reveals that among 13 variables, only four factors; personalised services and location, price and quality policy, store atmosphere and facilities and attractive offers are extracted as the key factors influencing customer loyalty towards organised food and grocery retail stores.

#### **SUGGESTIONS**

- The store should continue to provide personalised services to their customers such as informing about new arrivals, handling complaints and queries with the help of well-trained sales personnel.
- The store management should concentrate on in-store promotion such as contest, lucky draw and surprise discount to attract new customers and also to retain the existing customer.
- The store should offer customer loyalty program to their regular customer such as the point system, membership card and referral program to motivate the
  existing customers.
- Location of the store is one of the factors preferred by the customer. Therefore, the store should adopt some strategies like free home delivery, phone order facility and so on to the customer who resides far away from stores.
- The retailer should never compromise on their price and quality policy which in turn will make the customers shift to another store.
- Retailers should focus on refreshment and entertainment facilities such as play area for kids, babysitting, a modern and hygienic food court to bring out delight in customers.

#### **CONCLUSION**

This study attempts to identify the key factors influencing customer loyalty towards organised food and grocery retail stores. For the purpose, 260 respondents were surveyed and factor analysis was applied, and it was helpful to identify the underlying factors that determine customer loyalty, and the result reveals four factors which influence the customer to visit the particular store often and also continue to shop in future. This paper concludes that personalised service and location, price and quality policy, store atmosphere and facilities and attractive offers are the four factors that influence customer loyalty. Therefore these are the areas where the retailer needs to concentrate, and in addition to this, he has to come out with a lot of innovative ideas to meet out the changing requirements of the customer.

#### **LIMITATIONS**

- 1. This study was conducted in Coimbatore District. Therefore, the results of the study may or may not be applied to other areas.
- 2. Survey method which was adopted for collecting the data has its limitations.

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#### DYNAMIC CONGESTION CONTROL IN NETWORK LAYER FOR ADVANCED CLOUD COMPUTING

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#### **ABSTRACT**

Cloud computing becoming attractive tool for delivering web-based services. It can enable rapid development and dynamic scaling and it offers flexible powerful but low cost distribution infrastructure. In paper we proposed new infrastructure capabilities to support dynamic networks. In the network layer Allocation of resource at specific locations and those sites are connects by backbone supporting provisional virtual links. Each location constructs one data center for processing of resource specified by function. Application controller updates the distribution information and multicast to access nodes for load balancing of flow of packets and regulating the traffic flow within application cluster to avoid congestion. The processing elements create the virtual output queues to adjust to prevent output congestion.

#### **KEYWORDS**

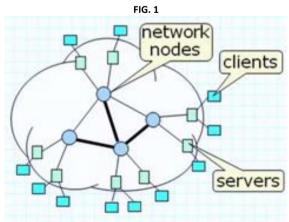
load balance, cluster, virtual output queues, resource allocation.

#### I. INTRODUCTION

loud computing is being widely adapted across many industry sectors with adapted with security concern. Network layer in the clouding computing face a congestion problem, not able balancing the load. In existing network layer resource allocation is biggest problem, due to that regulation of the traffic is very difficult. In this proposed paper introduces application controller to act as centralized operator for the balancing the load, regulating the traffic over the clusters. In these dynamic networks always updated information multicast to each region. The basic structure of network is through access node make a user interface to application servers. In same layer application controller plays a major role to control the congestion by using suitable techniques. The backbone routers are always communicating with data path services and forwarding multicast message and also subscription of the updates. The cloud will be divided in to multiple clusters, every cluster have data centers switches. The application server receive the updated news, observe its server object locations and subscribe server implicitly to required multicasts. Finally the subscription done by the observing the traffic.

#### **II. DYNAMIC NETWORK IN CLOUD COMPUTING**

The Dynamic networks are support new infrastructure capabilities. These networks easy to allocate the resource at specific region and share load equally that means in which location have a less traffic allocate the path through that direction. Regulating the traffic by updated messages. Here consider portion of dynamic network. The figure consists of Data center, Application node, provisional Virtual link and Virtual output queues.



It support internet scale traffic volumes with router like latency, and flexible for high performance packet process. If require all sites are connected by backbone supporting the provisional virtual link.

#### DATA CENTER

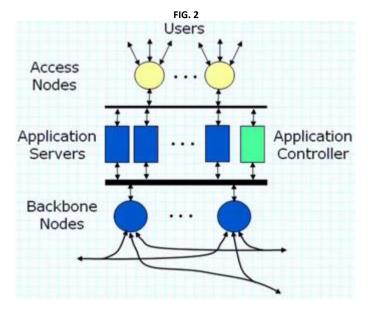
Each Data center processor having cluster process resource specified by function, Data center consists of multiple stages for scalability, each system with 1k-100k servers.

The additional edge capabilities are load balancing of flow or packets, regulating traffic flow within application cluster for avoiding congestion, multicast the packet forwarding within cluster.

#### **III. APPLICATION COMPONENTS**

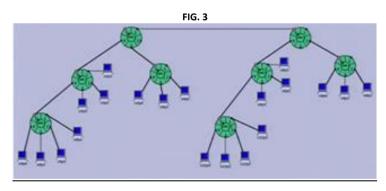
Overall Application Components are:

- 1. Access nodes
- 2. Application Controller
- 3. Application Server
- 4. Backbone Node



#### **ACCESS NODE**

Access nodes are User interface functions to pass the request and get the responses from servers. Each node has multiple user connections are directly connected with the respected servers. Access node is part of the cluster and cluster is the portion of the data center.

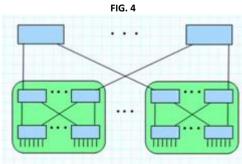


#### APPLICATION CONTROLLER

It is system session level control. It will be create the sessions, increment multicast tree routing and controlling the updated information it distribute multicast message to all the regions in the cluster.

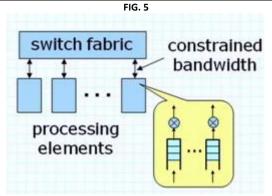
#### **DATA CENTER SWITCHING ISSUES**

Each switching center have multiple connection for scalability, switching center directly connected with other switching centers. It have multiple path to it neighboring switching centers. Finally the performance is increases.



#### CONTROLLING THE UPDATED DISTRIBUTION

For example divide the game in to multiple regions with multicast per region, and send object update on multicast for the region, receive state visible region. The server subscribe the regions as needed or network node can observe implicitly to required multicast. The subscription done by observing the traffic. When the server subscriber, starts for receiving updates: no coordination with sender required, send full updates periodically at lower rate.



Regulating the traffic with cluster for avoid congesting outgoing interface to processing elements (PE) The PE's create virtual output queues. And dynamically VOQ rate will be adjusted. VOQ rate is adjusted to prevent output congestion while optimizing the performance.

#### BACKBONE NODES

Backbone node provides data path services. To make a communication between any to data centers. And it can also multicast message forward and subscription. The nodes are act as intermediate nodes just share the message and subscription for following notifications.

#### IV. CONCLUSION

Each location constructs data center for processing of resource specified by function. Application controller updates the distribution information and multicast to access nodes for load balancing of flow of packets and regulating the traffic flow within application cluster to avoid congestion. The processing elements create the virtual output queues to adjust to prevent output congestion. Finally reduce the congestion into minimal level in adaptive network layer in cloud computing

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#### ENTREPRENEURSHIP SKILL DEVELOPMENT IN VARIOUS BUSINESS SECTORS IN TAMILNADU

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#### **ABSTRACT**

Entrepreneur Skills, Training and Development are the driving forces of economic growth and social development for any country. An effective entrepreneur skill development programme and training opportunities help to create self-employment at the Domestic as well as International level. The Indian government should identify what kind of entrepreneur skill and training need to start an enterprise. These training must be based on their industry of commodity business sectors for essential economic development. Hence the researcher discussed about the various entrepreneurs skill development and training programmes related to the business sectors in Tamilnadu, India. We see in detail about the skill development of various sectors of the business.

#### **KEYWORDS**

business, development, entrepreneur, economic growth, skill development.

#### **INTRODUCTION**

ntrepreneurship is 'an individual's ability to turn new ideas into action. Entrepreneur wants creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. It is seen as vital to promoting innovation, competitiveness and economic growth. Fostering entrepreneurial spirit supports the creation of new firms and business growth. Entrepreneurship skill also provides benefits of whether a person interest to starting a new business. They can be used across people's personal and working lives for as they encompass creativity, initiative, tenacity, teamwork, understanding of risk and a sense of responsibility (European, 2015).

Skill development is critical for economic growth and social development. Skill development is an important driver to address poverty reduction by improving employability, productivity and helping sustainable enterprise development and inclusive growth (Konrad, 2015). It facilitates a cycle of high productivity, increased employment opportunities, income growth and development. However, this is just one factor among many affecting the productivity whose measurement differs for individuals, enterprise and economy. The increase in productivity could be due to availability of skilled & healthy manpower, technological up gradation and innovative practices and macroeconomic strategies (Sunita & A, 2012).

#### **OBJECTIVES OF THE STUDY**

- 1. To Study the importance of entrepreneur skill development.
- 2. To Critically examine types of problems & issues in entrepreneurship.
- 3. To Study on support of youngster to develop entrepreneurship.
- 4. To Evaluate good skill development of the successful entrepreneur.

#### **DEFINITION OF ENTREPRENEUR**

Vignesh Tamilarasu defines, "Entrepreneur is a person who led the organization, lead the society, to lead the economic development of the country".

#### **ENTREPRENEURSHIP FOR SKILL DEVELOPMENT**

Entrepreneur wants to update his knowledge in his business. The entrepreneur skills and knowledge are the engines of economic growth and social development of any country. In the competitive world edge will be determined by the abilities of its people to create, share and use knowledge more effectively. On the Job opportunities side, it is failing to create enough job opportunities (Juan, 2011). Professionals entering the job market are lacking in skill sets. This is resulting in a scenario of rising unemployment rates along with low employability (Skill Development in India—present status and recent developments, 2015 - 2016).

#### CONCEPTUAL FRAMEWORK OF FACTORS THAT CONTRIBUTE TO THE SUCCESS ENTREPRENEURS



#### CHILDHOOD EXPERIENCES

In childhood experience was I found different kind's people and I get different kinds of experience. My dad started a new business of power loom. He works it for his business work not successful, because of lack of man power. The handloom workers are available but the raw materials are not sufficient at the time he met losses and business troubles to run business. These are problems may be he attend the problem faced by his business. I saw his trouble in each and every step of his business. In the mean time I am seeing his business ideas and experience in his business. The impact of childhood experiences revealed common characteristics. There was a relative predominance of being the younger child among the successful compared to the level of training they had received, responsibilities were given and they were exposed to an environment which encouraged independence and creative exploration. This environment of independence laid the foundation that enabled them to portray strong personalities able to handle problems and challenges through their journey to success. The independent environment enriched their creative thoughts from an early age facilitating successful ventures later in life. All the participants had a very good relationship with their parents contrary to the findings, and their father was voted as the most influential parent in their lives (Bhavna, 2015). They were brought up in an environment that was part authoritarian and part permissive which fueled their creativity and independence. This experienced anxiety-laden stressful situations such as poverty, economic hardships due to decisions of their parents, and death of a father, which influenced their decisions later in life. The training received during their childhood was most useful to the company and produced goods or services of superior quality. Its gives a very good childhood experiences influenced their success. These early childhood experiences were thus found to be a factor which contributed positively to their success (Chandrashekar &

#### **PSYCHOLOGICAL CHARACTERISTICS**

Psychological characteristics which is the second factor identified was discussed in terms of need for achievement, locus of control, propensity to take risk, tolerance of ambiguity, self-confidence and innovativeness. The high degree of need for achievement entrepreneur is self- confidence. This was identified through their high quality. Through their commitment and hard work in achieving the targets they have set for themselves. Considering the ability to tolerate ambiguities, majority were identified to have moderate tolerance of ambiguity due to the different levels of uncertainty prevailing in the different chosen ventures. The entrepreneur creativity required high degree of innovation to be successful (Yoganandan & Vignesh, 2016). It is further revealed that an alignment of these two factors contributed to the success their respective industries. We observed that factors such as need for achievement, self confidence, risk taking ability and locus of control were interrelated and worked as a force to result in their success. The ability of the entrepreneur to meet those requirements through their degree of innovation and tolerance of ambiguities has resulted in achieving their success. Entrepreneurial Competencies exhibited traits of strong managerial capabilities, hard work, sacrifices and dedication to the task. The elements relating to the competencies of the participants uncovered in the study is consistent with the findings of the past research. Apart from these sacrifices, hard work and dedication to the task, the participants have advised their own unique way of managing their employees and have cultivated unique abilities to be successful. Human relations were identified as an important aspect in their success and a unique style of managing this resource surfaced from the study.

#### MANAGING EMPLOYEES AND DECISION MAKING

Entrepreneur wants to manage the each and every employee. He has to take a good decision maker at any time. Entrepreneur creates an environment of affection, sense of belonging and commitment all around which are ingredients in his recipe for success. Affectionate qualities and the satisfaction he derives from helping his employees. He stated that he had helped some of his members to build houses and also gives advice on how they must succeed in life. He acknowledged his competent staff, which he considers as a part of himself and the reason for the success (Balamurugan & Kalai Rani, 2016).

#### **UNIQUE COMPETITIVE ABILITIES**

Their unique abilities in conducting their business competitively, differs with the different industry requirement venture. The inspiration of nature has enabled to have own trademark of design, which was described as designs that flow through the garment and being very masculine. He has a competitive edge over his competitors through his unique style and also through his high quality paints and dyes. The unique ability to be competitive was revealed through his ability in combining his artistic talent with the exposure he has received from all over the world, seeing the art of living. So you uproot those things and you store it in your mind. Then you play with whatever the resources here. They stated that their family was very important to them and they don't want to lose at any end. Their unique abilities in conducting their business competitively were identified by the researcher as a reason behind their success. These abilities varied from creativity which would be in design, products or in writing, quality in the products or service provided and a network of trained suppliers along with the expert knowledge they had in operating their venture. The entrepreneurial competencies are various terms of business competitors and the exposure nature of the business. Thus the term "Entrepreneurial competencies" encompass all the identified competencies and concluded as a contributory factor to their success (Surya Kumar & Venkatesh, 2017).

#### FORMAL AND INFORMAL LEARNING

All are well educated with who had pursued a professional course relating to their venture apart from their school education. Even with such a foundation affirmed that informal learning was the most important form of learning due to the creative nature of their ventures. Highlighting the importance of informal learning a participant stated. Their opinion was that creativity is inborn and can be harnessed through the experience in that field and learning through the association of people which cannot be taught through formal courses (Seuwandhi, 2008).

#### CONCLUSION

Every person has a different skills and ideas. We are different thoughts and ideas are having by each and every person. But a successful entrepreneur has to be getting their knowledge in the unique rules to follow. In this article we following to very simple and important of the business skills have to be growth of the successive skill development of the entrepreneur. These are the above points to be showing the frame work of the successful entrepreneur to develop his skills and making a good entrepreneur in this world.

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#### GROWTH AND DEVELOPMENT OF TELECOM SECTOR IN INDIA: AN OVERVIEW

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#### **ABSTRACT**

After the implementation of the Federal Financial Integration Scheme on 1st April, 1950, the administration of the entire network of telegraphs and telephone systems of the nation, including those that previously existed in the former princely state became a major adventure. India had around 84000 telephone lines for its population of 350 million at the time of its independence in 1947. India is the fastest growing economy post its liberalization and globalization activism and Asia's third largest economy behind Japan and China. India's telecom density is not so high as compared to the western market. These liberalization measures introduced in the telecom sector were expected to boost the investors' confidence, bring greater competition for the benefits of subscribers and develop modern telecommunication network in the country at a faster pace. The rapid growth in Indian telecom industry has been contributing to India's GDP at large. After independence the growth in telecom sector in public sector was fair and well planned.

#### **KEYWORDS**

Indian telecom sector, growth & development, market share.

#### INTRODUCTION

elecom is an essential infrastructure for economic development and hence for the improvement of the quality of human life. The use of telephone is in different activities like social and economic, and gathering information and knowledge. From these the highest use goes to social activities. It is used for saving time and expenditure in social and financial contexts. In India people are interested in owning mobile phones. The mobile telephone connection is costly when compared with land phone connections, as the initial capital cost of handset purchase is more. Salaried and business people who are having comparatively high economic status were the most intensive users of mobiles. In the absence of cheaper fixed line services mostly in rural areas, there are increased use of WLL phones and mobile phones. But in such cases there arise problems in the case of range also. As the desired inter locator is reached through telephony, and the telephone is likely to be the quick way for communication, telephone has a considerable advantage over other communication channel in emergencies. Simplicity in access makes telephony more particular in the case of priority requirement for all socio-economic groups.

The telecom services have been very much useful for promotion of employment. They create number of job opportunities in this new field. By the use of internet, doctors are getting consultancy from all over the world. One can interact with another and can receive important tips about a particular case from the experience of the other doctor. With the help of Telephone, producers and the middle men are able to gather information about the availability of raw material, market price and finished products. Telephone is considered as the means for obtaining and sharing information. Public Telephone facilities are useful to the poor also. It can replace the need to travel or postal costs. High level of use of telephone for Social networking implies that most of the rural areas are in need of subsidised access. Wider access to internet service is possible through the expansion of telecommunications connectivity. Households in most contexts tend to spend, on average, between 2 per cent and 4 per cent of house hold income on telecommunications. The use of telephone for the acquisition of information and knowledge was very low till the introduction of availability of internet through phones.

Most of the developing countries are facing the growth phase of telecom sector, because of the technology changes in accordance with the local geography. At the primary stage the numbers of mobile phone connections are lower than the number of land phone connections in developing countries. After 1995 most of the developing countries are facing rapid growth in the cell phone penetration. While considering the technological development in the telecom sector, India is late starter. India is the fourth largest telecom market in Asia after China, Japan and South Korea. The Indian telecom network is the 8th largest in the world and the second largest among the developing economies.

#### **OBJECTIVES**

The objectives of the research study are:-

- 1. To identify the present trends in the Indian Telecom Industry and its growth
- 2. To review the Government Telecom policies.
- 3. To study the future growth opportunities in the Indian Telecom Industry.

#### **METHODOLOGY**

It is based on secondary data collected from the Department of Telecommunication, Telecom Regulatory Authority of India, Ministry of Communication, the reports from Government of India and other sources. In order to study the specified objectives, statistical tool like year-wise Percentage of market share of different service provider, annual growth rate and percentage were calculated.

#### **REVIEW OF LITERATURE**

Dr.R.Srivastava, Dr. JatinBhangle, K.J.Somaiya, in their work on "Role of Competition in Growing Markets: Telecom Sector". This paper studies the booming service sector. The focus is on the cellular service providers in the country. In this topic suggests 'the role of competition in growing markets' an industry, which is in the growth stage, has been identified. The theory of product life cycle is explained with emphasis on the growth stage. It then studies the marketing strategies adopted by the major players like Bharti, Reliance, Orange, Tatas etc. It also tries to show how in the product life cycle the various service providers are trying to fit in their products and services.

Dr.S.K.Sinha, Ajay Wagh in his work on The Indian telecom sector has emerged as the fastest growing telecom market in the world. With more affordable services, increased penetration and a supportive government along with regular fall in tariffs in the sector has brought significant changes in number of consumers and usage of cellular telecom services. However, with galloping achievements, there are few challenges too, to be overcome by the Indian telecom industry to ride high on the next growth wave

Shankar (2006) This article examines the emergence of innovation and value creation for enhancing customers' experience, as a result of increasing competition in the Indian telecom industry during the late 1990s and early 2000s. The report provides a detailed account of the evolution of the Indian telecom industry. It traces various developments in the industry before, during and after the liberalization of the Indian telecom sector. It also provides information about the increasing popularity of cellular services, which led to the emergence of several private telecom operators like Bharati Tele Ventures, Hutchison Telecom, Idea Cellular Ltd, Reliance Telecom Ltd, etc.

Gamie (2008), undertook a research to explore the challenges of reaching low-income customers in developing markets. The whole study is just one interview based in which Anderson is asking question from Gurdeep Singh Operations Director with Hutchison Essar India. Now that discussion concludes that managers

need to go beyond traditional approaches to serving the poor, and innovate by taking into account the unique institutional context of developing markets. In most cases, MNOs have served the poorest consumers through shared-use models such as Grameen Phone's Village phone concept in Bangladesh, due to the commonly held belief that reaching these consumers is difficult due to two key challenges – affordability and availability.

#### DISCUSSION

This study has been conducted to depict the history and evolution, present trends and future opportunities in the Telecom Industry of India. Here, the researcher has also discussed about the various Government Telecom Policies that govern this industry.

#### **DEPARTMENT OF TELECOMMUNICATIONS (DOT)**

In the year 1985, the DOT was set up to provide domestic and long distance telephone services. The telecom services have been recognized the world-over as an important tool for socio-economic development of a nation and hence telecom infrastructure is treated as a crucial factor to realize the socio-economic objective in India. Accordingly, the DOT has been formulating development policies and projects for the accelerated growth of the telecommunication services. The Department is also responsible for frequency management in the field of radio connection in close co-ordination with the international bodies. It also enforces wireless regulatory measures by monitoring wireless transmission of all uses in the country. The DOT has been the premier telecom service provider in India with its presents through the length and breadth of the country. The Department in 1986 reorganized the Telecommunication circles with the SSAs as basic units. It was implemented in a phased manner. With a view to deciding matters of policy, a separate telecom Board, named the Telecom Commission, was also setup. The telecom commission was constituted in 1989. The Telecom commission was set up by the government of India with necessary executive, administrative and financial powers to deal with various aspects of Telecommunications. The Commission has the DOT Secretary as its Chairman with Member (Services), Member (Technology), and Member (Finance) as its fulltime members. The part time members are Secretary (IT), Secretary (Finance), secretary (Planning Commission), Secretary (DOE), Secretary (Industries), and Secretary (IP & P). But this again composed mainly of the officers of the DOT. In 1999, modification was brought to the policy. The DOT has a Public Grievances cell at Sanchar Bhavan, New Delhi, which receives various types of complaints related to telecom services and takes these up with the concerned service provider for redressal.

#### **TELECOM REGULATORY AUTHORITY OF INDIA (TRAI)**

In the year 1997, the government setup the TRAI to provide a comprehensive telecom service in the country. With the entry of private sector in the provision of telecommunication services a need was felt to have an independent regulatory body. This requirement was indicated in the guide lines issued for entry of private sector in basic telecom service. Accordingly, TRAI was established in the year 1997 in pursuance of TRAI (ordinance) 1997, which was later replaced by an Act of Parliament to regulate the telecommunication services. The desired objectives of bringing about functional clarity, strengthening the regulatory frame work and the dispute settlement mechanism have been attained by bringing about a clear distinction between the regulatory and recommendatory functions of TRAI, by making it mandatory for Government to seek recommendations of TRAI in respect of specified matters and by the setting up of separate dispute settlement mechanism.

#### **BHARATH SANCHAR NIGAM LIMITED (BSNL)**

After finalization of various financial and HRD aspects, the business of running telecom operations throughout the country except in the metros of New Delhi and Mumbai, the service providing functions of the Department of Telecom Services (DTS) and DTO were transferred to the newly created company BSNL. The two newly carved out service providing Departments from the DOT, namely the Department of Telecom Services (DTS) and Department of Telecom Operations (DTO) were corporatized ahead of schedule and a Public sector company "Bharath Sanchar Nigam Ltd. (BSNL)" was given all the service providing functions performed by these two Departments w.e.f. October 1, 2000 and began its existence as a fresh entity. The creation of BSNL was expected to provide a level playing field, in all areas of telecom services, between government operators and private operators.

With the corporatization of the two service providing Departments Viz. DTS and DTO in to a PSU "BSNL", the role of Telecom commission has been changed. After shedding the direct responsibility of service providing functions of the DOT, Telecom commission was responsible for policy formulation, licensing, wireless spectrum management, administrative monitoring of PSUs, research and development and standardization, validation of equipment etc.

#### Some of the other development activities of telecom sector are the following;

#### **Opening up of National Long Distance Services**

As per the new Telecom Policy (NTP), 1999, the Government has opened the National Long Distance Service beyond the service area to the private operators without any restriction on the number of operators w.e.f 13th August, 2000. The government has also issued guidelines for providing Licenses to Infrastructure Provider–II (IP–II) for the purpose of leasing/ renting out/ Selling end- to–end band width. No formal license is required for providing assets such as Dark Fibres, Right of way, Duct Space and Tower. They are only required to be registered as IP–I.

#### **Telecom Dispute Settlement and Appellate Tribunal (TDSAT)**

A separate dispute settlement body known as "Telecom Dispute Settlement and Appellate Tribunal" to adjudicate any dispute between a licensor and licensee, between two or more service providers, between a service provider and a group of subscribers, and to hear and dispose of appeals against any decision or order to TRAI, has been formally constituted with the appointment of chairperson and two members. The tribunal has become operational and started hearing cases.

#### Strengthening of the Unit for Telecom- Economic Analysis

The Telecom Commission created a Policy planning cell in the Economic Research unit to prepare discussion papers, policy papers on national and international issues relating to the telecom sector. The Economic Research Unit (ERU) in the Department of Telecommunications which is a multi-disciplinary unit consisting of economists, statisticians, engineers and financial experts, provides various inputs on technoeconomic issues relating to telecom policy formulation and planning. The ERU compiles and disseminates various data on techno- economic parameters relating to telecom sector. The unit provides telephone demand projections for basic services to the Telecom commission and all the circle heads. The projections cover the demand at the all India level, each telecom circle and metro telecom districts and all the stations with equipped capacity of 200 lines and above. It studies the trends in the investment by the private sector to provide various telecom services. The ERU also carries out various techno-economic studies on specific issues relating to telecommunications, apart from sponsoring studies on specific aspects. Accordingly, it has carried out technoeconomic studies on tariff related issues, call distribution pattern etc. and prepared a number of reports and policy papers. It has prepared Indian Telecommunication statistics during the period under report. The material for the pre- Budget Economic Survey on Telecommunication was also prepared. The Annual Report of the Department of Telecommunication is also co-ordinated and brought out by the unit.

#### Manufacture of Telecom Equipment's

India is a major manufacturer of a wide range of telecom equipments. The total production of telecom equipments and cables in terms of value has increased from Rs. 3985 crores in 1992–93 to Rs. 8,300 crores in 1996-97 which further increased to Rs. 10760 crores during 1999- 2000. The Indian telecom equipment industry"s revenues fell marginally to Rs. 1,13,188 crores in 2011-2012 from 1,14,133 crores in 2010-2011.

#### **Export of Telecom Equipments& Services**

India has been recognized as a key supplier of products and technologies for rural telecom by international organization Viz and ITV. Vigorous efforts are being made to increase the exports of telecom equipments and services.

#### Virtual Private Net work (VPN)

VPN is a private data network that provides connectivity within closed user groups Via public telecommunication infrastructure. Competition is likely to heat up in the VPN segment as DOT has relaxed the norms for private players.

#### **Public Telephones**

The Opening up of Public Telephone (PTS) at various places like Bus station, Railway station, thickly populated areas and business areas were occurred so as to satisfy the requirements of ordinary people. In the areas where the density of telephones was very low, PTS were opened. But the introduction of Mobile phones has decreased the use of PTS. At the initial stage the PTS were only within the hands of DOT, as a monopoly. But the liberalization policies and the subsequent

privatisation policies have paved the way for the installation of PTS of private companies also. The installation of electronic exchanges with dynamic locking system have prevailed upon the prospective subscribers to use the STD and ISD facilities of their own and the use of PTS for STD /ISD facilities became very rare.

#### **Reduction of Excess Staff**

DOT provides basic service by drawing a pair of copper cables for each connection. But such cables become faulty in rainy seasons. Underground cables have comparatively less fault rate, excluding these seasonal changes, than the over head lines. But at the time of over head lines, the required number of permanent line staff and mass doors, was more. In the case of underground cables comparatively less permanent employees are required. In this case the digging jobs are done by petty contractors but the technologies like WLL and mobile, the initial investment is heavy.

#### World-wide Interoperability for Micro-wave Access (WiMAX)

WiMAX has been one of the most significant developments in wireless communication in the recent past. Since this mode of communication provides network access in inaccessible locations at a speed of more than 4 Mbps, it is expected to be a major factor in driving telecom services in India especially Wireless services. Thus it will lead to the increased use of telecom services, internet, Value Added Service (VAS) and enterprise services, WiMAX is expected to accelerate economic growth and assist in providing better education, health care and entertainment services. Aircel is the pioneer in WiMAX technology in India. The state owned player, BSNL, aims to connect 74,000 villages through WiMAX.

#### **Mobile Number Portability**

It is a standard where a customer wishing to port his/her number, is required to contact the donor to obtain a Port Authorisation Code (PAC) which he/she then has to give to the recipient. Once having received the PAC the recipient continues the port process by contacting the donor. This form of porting is also known as "Donor-Led" and has been criticised by some industry analysts as being inefficient. It has also been observed that it may act as a customer deterrent as well as allowing the donor an opportunity of "winning- back" the customer. This might lead to distortion of competition, especially in the markets with new entrants that are yet to achieve scalability of operation. To reduce their network deployment costs, many service providers are considering infrastructure sharing. It is considered having the advantages like improved service quality, increased affordability for customers, faster roll out of services in rural and remote areas, significant reduction in initial set up costs, lower operating costs for service providers and increased environmental aesthetics.

#### Value Added Services

VAS in telecommunication industry refers to non-core services, the core or basic services being standard voice calls and fax transmission including bearer services. The value added services are characterised as (a) not a form of core of basic service but adds value in total service offering; (b) standards alone in terms of profitability and also stimulates incremental demand for core or basic services; (c) can sometimes be provided as stand alone; (d) do not cannibalize core or basic service; (e) can be add-on to core or basic service and as such can be sold at premium price; and may provide operational synergy with core or basic services. A value added service may demonstrate one or more of these characteristics and not necessarily all of them.

#### **INDIAN TELECOM SECTOR: AN OVERVIEW**

Communications Sector has assumed the position of an essential infrastructure for socioeconomic development in an increasingly knowledge-intensive world. The reach of telecom services to all regions of the country has become an integral part of an innovative and technologically-driven society. Studies have shown positive correlation of the Internet and Mobile Services on growth of the GDP of a country. As a result of sustained efforts made by the Government over the years, the Indian Telecom Sector has grown exponentially and has become the second largest network in the world, next only to China.

#### PRESENT STATUS

Present status of the Telecommunication sector (as on December 31, 2016)

- Indian telecom network is the second largest in the world after china, in terms of the number of telephone connections
- The country has 1124.41 million telephone connections, including 1099.97 million wireless telephone connections.
- Overall tele-density in the country is 87.85%.
- Urban tele-density is 164.13% whereas rural tele-density is 52.97%.
- The share of wireless telephones in total telephones is 97.83%.
- The share of private sector in total telephones is 89.58%.
- Number of Broadband connections is 218.43 million at the end of December, 2016.

#### Wire line vs. Wireless

While wireless voice and data services has continued to grow, with some support from landline also, in facilitating high speed data services. Landline telephone connections now stand at 24.44 million while the number of wireless telephone connections has grown to 1099.97 million at the end of November, 2016. As a result, the share of wireless telephones increased to 97.83% of total services. The ever-expanding demand for wireless services has propelled the telecom sector to mobilise considerable resources to create such ecosystem.

#### Public Vs. Private

Another noteworthy feature of the Indian Telecom Sector is the continuous rise in the number of subscribers in the private sector. At the end of November, 2016, the total number of telephone connections provided by the private sector stood at 1007.27 million and number of telephone connections provided by the public sector stood at 117.14 million. The share of private sector in the total number of connections was 89.58% at the end of November, 2016, as compared to public sector share of 10.42% during the same period. In present scenario, the private sector has a dominant position in Telecom Sector.

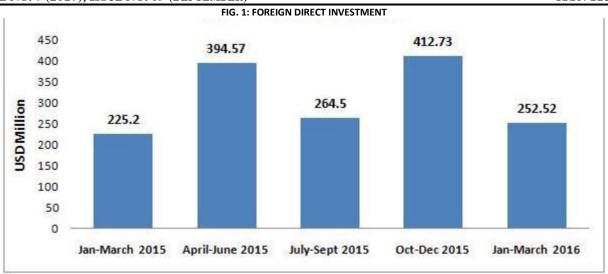
#### FOREIGN DIRECT INVESTMENT POLICY IN TELECOM SECTOR

Telecom Sector is considered to be one of the most attractive sectors for Foreign Direct Investment (FDI) in the country. The Foreign Direct Investment (FDI) in all telecom services is currently allowed up-to 100% (automatic route) as per the current FDI policy, subject to observance of licensing and security conditions by licensee as well as investors as notified by the Department of Telecommunications (DoT) from time to time.

#### TABLE 1

Sr.	sector/activity	FDI	Entry route
No		cap/ Eq-	
		uity	
1	Telecom services (including Telecom infrastructure Providers category-i) all telecom services including Telecom infrastructure Providers category-i, viz. Basic, cellular, unified access services, unified license (access services), unified license, national/ international long Distance, commercial V-sat, Public mobile Radio Trunked services (PMRTS), global mobile Personal communications services (GMPCS), all types of isP licences, Voice mail/ audiotex/ ums, Resale of iPlc, mobile number Portability services, infrastructure Provider category – i (providing dark fibre, right of way, duct space, tower) except other service Providers.	100 %	Automatic up to 49% Beyond 49% Through FIPB route
2	manufacture of Telecom Equipments	100%	Automatic

Source: DIPP (Department of Industrial Policy and Promotion)



#### PROMOTION OF DOMESTIC MANUFACTURING OF TELECOM EQUIPMENTS

The government has taken key measures for the promotion of domestic manufacturing and export of telecom Equipments:

- > 5% Basic Customs Duty (BCD) on perform of Silica has been imposed in budget 2016-17 to give a fillip to the domestic manufacturing of this telecom item which is used in the manufacture of optical cable.
- > The Government has included the exporters of telecom products for availing the benefits under Interest Equalisation Scheme on Pre & Post Shipment Rupee Export Credit, announced on November 18, 2015 (to be effective from 1st April 2015), subject to the compliance with minimum value addition criterion issued by Department of Telecommunications vide notification dated 31.12.2016.

As per DGCIS data, the import of telecom equipments including mobile phones, parts and telecom cables during 2015-16 stands at ₹102,571 crores. Import during the period April – September, 2016 stands at ₹50,249 crores. The Export of Telecom equipments including mobile phones, parts and telecom cables during 2015-16 is ₹8,490 crores and from Apr'16 to Sept'16 is ₹4,883 crores.

#### INTERNATIONAL COOPERATION (IC)

The IC Division deals with activities of prime importance relating to WTO negotiations, Bilateral and multilateral agreements relating to telecommunications, Telecom Equipment and Services Export Promotion Council (TEPC), Telecommunications Standards Development Society of India (TSDSI), Telecom Centres of Excellence (TCOE India), Exhibitions/ Conferences and seminars relating to telecom. The year 2016-17 (April-December) was marked by several important activities in field of International Cooperation, which are broadly categorised as under:

- i. India Telecom 2016
- ii. Participation in RCEP (Regional Comprehensive Economic Partnership) on Telecom Services (SWG-TEL) meetings
- iii. Telecom Equipment & Services Export Promotion Council (TEPC)
- iv. Telecommunications Standards Development Society of India (TSDSI)
- v. Telecom Centre of Excellence (TCOE), India (TCOE India).

#### **CHALLENGES**

Even though the Indian telecommunications sector has come a long way since the time of liberalization and promises growth, there are a number of issues which still pose a challenge to its progress. Two critical issues are:

- High capital investments
- Well-established players who have a nationwide network
- License fee
- Continuously evolving technology
- Declining Average Revenue Per User
- Lack of Telecom Infrastructure
- A wide variety of choices available to customers both in fixed as well as mobile telephony has resulted in increased bargaining power for the customers.

#### **FUTURE GROWTH OPPORTUNITIES IN THE INDIAN TELECOM INDUSTRY**

The Indian Telecom Industry has been considered as an essential tool for the socio- economic development and for growth of GDP in the country. The Indian mobile economy is growing rapidly. The Government had raised the FDI limit from 74% to 100% during August 2013 which has made the telecom industry one of the fastest growing and a top five employment opportunity generator in the country. The increase in FDI has been done to ensure continuous flow of investments in the industry to expand the reach of mobile operators.

The Indian Telecom industry has undergone a progressive shift from voice services to data services, thereby creating a new direction for the future of this industry. The Ministry of Communication and IT is planning to extend basic mobile coverage, including voice calling, in far flung areas of eight north eastern states, creating a more inclusive telecom network across the country. This industry is expected to provide more than 4.1 million jobs in the coming five years. Therefore, this will be favourable to professionals who aspire to pursue their career in this industry. The Indian Government has also decided to expand the basic telecom services in the rural areas for increasing rural tele-density in future.

The Indian Telecom industry has been growing at an average of 35% a year for close to two decades which is beneficial to the country. The industry has touched the lives of millions of Indians and will continue to remain a significant growth driver in the future also.

#### **CONCLUSION**

It can be concluded that the growth and development of Telecom sector of India has made it a key contributor in India's economic and social up gradation. Every functional division and service provider of Telecom Sector of the country is trying to provide world class telecom infrastructure in its area of operation to give services to its customers and so, helping the country to progress in the global scenario.

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### FUTURE CLOSING PRICE, TRADING VOLUME AND OPEN INTEREST: EVIDENCE FROM STOCK FUTURES & INDEX FUTURES OF NIFTY 50 ON NSE IN INDIA

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#### **ABSTRACT**

Futures are standardized contract between two parties to buy or sell an asset at a certain time in the future at a certain price. Open Interest is the total number of outstanding contracts that are held by market participants at the end of the day. Open interest applies primarily to the futures market. Open interest, or the total number of open contracts on a security, is often used to confirm trends and trend reversals for futures and options contracts. Open interest measures the flow of money into the futures market. For each seller of a futures contract there must be a buyer of that contract. Thus a seller and a buyer combine to create only one contract. Increasing open interest means that new money is flowing into the marketplace. The result will be that the present trend (up, down or sideways) will continue. Technical analysis can easily see that the volume represents a measure of intensity or pressure behind a price trend. The greater the volume, the more we can expect the existing trend to continue rather than reverse. This paper makes an attempt to study the relationship between future closing prices, trading volume and open interest for Nifty Index and select 25 Stocks on Nifty 50 Index for near month contracts. Open interest is often used to know the trends and flow of money, the relationship between these three often indicates the change of trend in the futures market.

#### **KEYWORDS**

futures closing price, trading volume, open interest, granger causality, co-integration.

#### INTRODUCTION

erivatives trading in India commenced in June 2000. NSE started operations in the derivatives segment on June 12, 2000. Initially, NSE introduced futures contracts on S&P CNX Nifty Index. However, the basket of instruments has widened considerably. Futures markets were designed to solve the problems that exist in forward markets. A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. But unlike forward contracts, the futures contracts are standardized and exchange traded. To facilitate liquidity in the futures contracts, the exchange specifies certain standard features of the contract. A futures contract may be offset prior to maturity by entering into an equal and opposite transaction. More than 99% of futures transactions are offset this way. The effective use of futures contract in hedging decisions has become focus and centre of debate on finding out an optimal hedge ratio and hedging effectiveness in empirical financial research. Financial media regularly reports daily trading activities to the stock markets. The information content of this data in terms of volatilities of price, trading volume and market depth has long attracted the attention of many researchers, policy makers and investors, to examine if there is any relationship between these variables and the types of relationship that exist between these variables. Trading volume offers useful information for practitioners and investors in investment decisions, as well as for researchers and policy makers in testing the theories of financial economics. The contemporaneous relation between price movements, trading volume and open interest on financial markets keeps attracting the attention of many financial economists (K. Srinivasana, 2010).

#### LITERATURE REVIEW

TarkDoğru, ÜmitBulut International (2012), "The Price-Volume Relation in the Turkish Derivatives Exchange" the paper examined the relation between closing prices and trading volume of US Dollar (USD) futures contracts in the Turkish Derivatives Exchange (TURKDEX). The data set comprised of daily closing prices & volume from 2009 to 2011. The results indicated that there is no relation between prices and volume in the short run, there is a relation from volume to prices in the long run.

Christos Floros (2001) "The Relationship between Trading Volume, Returns and Volatility: Evidence from the Greek Futures Markets" this paper investigated the contemporaneous and dynamic relationships between trading volume, returns and volatility for Greek index futures (FTSE/ASE-20 and FTSE/ASE Mid 40) taking data of Daily closing prices and volume for FTSE/ASE-20 index Sept. 1997-August 2001. For FTSE/ASE Mid 40 index, the daily closing prices and trading volume Dec. 1999- August 2000 and used OLS, GARCH, Granger Causality, GMM models. The conclusions drawn were for FTSE/ASE-20, price volatility does not significantly impact volume's volatility, and also, we conclude that a contemporaneous relationship does not hold. The dynamic models show a bi-directional Granger causality (feedback) between volume and actual returns. However, for FTSE/ASE Mid 40, the results indicate that returns do notGranger cause volume and vice versa.

Jonathan M. Karpoff (1987) "The Relation between Price Changes & Trading Volume: A Survey" this paper reviewed previous & current research on the relation between price changes & trading volume in financial markets and drawn various conclusions regarding each studies and a general conclusion drawn was that volume is positively related to the magnitude of the price change.

K. Srinivasana, (2010), "An Analysis of Price Volatility, Trading Volume and Market depth in Futures Market in India", this paper studied the conceptual framework of derivatives market in India and assessed the dynamic relationship between price volatility, trading volume and market depth for selected stock futures contracts and also to identify a suitable model to forecast volatility for stock futures contracts in India. The study was done for a period from Jan 2003 to Dec 2008 comprising of 25 stock futures contracts on NSE using ARCH and GARCH models. The study concluded that volatility is a part and parcel of capital market and have a major effect in derivatives market fluctuations and is due to the other key determining factors like inflow of foreign capital into the country, Exchange Rate, Balance of Payment and Interest Rates. It further draws out stating that there is a significant positive relationship between return volatility, expected trading volume and expected open interest. Unexpected volume and open interest have a greater impact on volatility from the expected trading volume and open interest whereas the Market depth does not have any effect on volatility.

Gulati Deepti (2012), "Relationship between Price and Open Interest in Indian Futures Market: An Empirical Study "this paper examined the relationship between closing price and open interest in Indian stock index futures market considering a sample of Indices BANKNIFTY, MINIFTY, CNXIT, NIFTY and NIFTYMIDCAP50 for a period 2009-10 & 2010-11 using statistical tool Granger Causality and concluded that one can use the information of open interest to predict future prices in the long run.

Toshiaki Watanabe (2001), "Price volatility, Trading Volume, and Market Depth: Evidence from the Japanese Stock Index Futures Market", this paper examined the relation between price volatility, trading volume and open interest for the Nikkei 225 stock index futures traded on the Osaka Securities Exchange (OSE) for a period of 24 August 1990, to 30 December 1997 using Descriptive statistics & ADF test. The conclusions drawn were a significant positive relation between volatility and unexpected volume and a significant negative relation between volatility and expected open interest. However, no relation between price volatility, volume and open interest is found for the period prior to 14 February 1994, when the regulation increased gradually. This result provides evidence that the relation between price volatility, volume and open interest may vary with the regulation.

Stéphane M. Yen & Ming-Hsiang Chen (2010)"Open interest, Volume, and Volatility: Evidence from Taiwan Futures Markets "examine the relationships amongst volatility, total trading volume (TVOL) and total open interest (TOI) for three Taiwan stock index futures markets for a period July 21, 1998 to December 31, 2007 using GARCH and concluded that a significant in-sample relationships amongst the futures' daily volatilities, the lagged total volume and the lagged total open interest. Whether addition of lagged total volume and/or lagged total open interest helps the basic GARCH models predict future volatility depends upon the sample period examined for all three sets of futures.

Jonathan M. Karpoff (1987) "The Relation between Price Changes & Trading Volume: A Survey" this paper reviewed previous & current research on the relation between price changes & trading volume in financial markets and drawn various conclusions regarding each studies and a general conclusion drawn was that volume is positively related to the magnitude of the price change.

#### RESEARCH METHODOLOGY

The analysis is conducted for Nifty 50 Index & 25 select stocks on NIFTY 50 Index traded on NSE India for a period from April 2005 to December 2015 considering the inclusions and exclusions from the Nifty 50 Index constituents during the study period, using various tools to achieve the objective. In order to help in comparative analysis the period of study is kept uniform from 1st April 2005 to 31st December 2015. The sample used in this study includes daily future close prices, trading volume & open interest as major components or determinants in futures market for Nifty Index & 25 select stocks traded on NSE (www.nseindia.com). Since most of the trading activity takes place in near month contracts, only near month contracts are examined. All the values are converted to natural logarithm, calculated as  $R_t = LN(P_t / P_{t-1})$  where  $P_t$  and  $P_{t-1}$  are natural logarithms on day t and t-1 respectively to prevent non-stationarity, to achieve accurate results for the test incorporated.

TADIE	1 · DESCRIPTION	OE CAMDLE

INDEX & STOCKS	NIFTY 50		
	Company Name	Industry	Symbol
	ACC Ltd.	CEMENT & CEMENT PRODUCTS	ACC
	Ambuja Cements Ltd.	CEMENT & CEMENT PRODUCTS	AMBUJACEM
	Bank of Baroda	FINANCIAL SERVICES	BANKBARODA
	Bharat Heavy Electricals Ltd.	INDUSTRIAL MANUFACTURING	BHEL
	Bharat Petroleum Corporation Ltd.	ENERGY	BPCL
	Cipla Ltd.	PHARMA	CIPLA
	GAIL (India) Ltd.	ENERGY	GAIL
	HCL Technologies Ltd.	IT	HCLTECH
	Housing Development Finance Corporation Ltd.	FINANCIAL SERVICES	HDFC
	HDFC Bank Ltd.	FINANCIAL SERVICES	HDFCBANK
	Hero MotoCorp Ltd.	AUTOMOBILE	HEROMOTOCO
	Hindalco Industries Ltd.	METALS	HINDALCO
	Hindustan Unilever Ltd.	CONSUMER GOODS	HINDUNILVR
	ICICI Bank Ltd.	FINANCIAL SERVICES	ICICIBANK
	Infosys Ltd.	IT	INFY
	ITC Ltd.	CONSUMER GOODS	ITC
	Mahindra & Mahindra Ltd.	AUTOMOBILE	M&M
	Maruti Suzuki India Ltd.	AUTOMOBILE	MARUTI
	Oil & Natural Gas Corporation Ltd.	ENERGY	ONGC
	Reliance Industries Ltd.	ENERGY	RELIANCE
	State Bank of India	FINANCIAL SERVICES	SBIN
	Tata Motors Ltd.	AUTOMOBILE	TATAMOTORS
	Tata Power Co. Ltd.	ENERGY	TATAPOWER
	Tata Steel Ltd.	METALS	TATASTEEL
	Tata Consultancy Services Ltd.	IT	TCS
DATA VARIABLES	FUTURES CLOSE PRICES		
	TRADING VOLUME		
	OPEN INTEREST		
PERIOD	APRIL, 2005 TO DECEMBER 2015		
TOOLS	DESCRIPTIVE STATISTICS		
	UNIT ROOT TEST		
	GRANGER CAUSALITY		
	CO-INTEGRATION		
	VECTOR ERROR CORRECTION		

#### OBJECTIVE

To assess the relationship between Future Close Price, Trading Volume and Open Interest for select Stock Index Futures & Stock Futures in India.

#### **HYPOTHESIS**

H0: There is no significant relationship between future close price, trading volume and open interest.

H1: There is significant relationship between future close price, trading volume and open interest.

#### **DATA ANALYSIS & INTERPRETATION**

#### **DESCRIPTIVE STATISTICS**

To assess the relationship between future close price, trading volume and open interest we calculate daily log-returns of the NIFTY stock Index and the select 25 stocks based on its daily future close price, trading volume and open interest during 1st April 2005 to 31st Dec. 2015. To know the distribution pattern and also the

performance of the stocks descriptive analysis of future prices, volume and open interest is examined. The descriptive statistics of future close prices, trading volume and open interest is summarised in the below table 1.2 in terms of mean, standard deviation, Skewness, Kurtosis and Jarque Bera for Nifty 50 Index and select 25 stocks for the period from 1st Apr. 2005 to 31st Dec., 2015.

TABLE 2: DESCRIPTIVE STATISTICS OF LOG FUTURE CLOSE PRICE (LNFCL)

	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob.	Obs
ACC	0.000495	0.021327	-0.37702	8.171455	3037.38	0	2669
AMBUJACEM	-0.00027	0.045586	-33.6615	1509.123	2.53E+08	0	2669
BANKBARODA	-0.00013	0.040924	-23.1398	920.5788	93870142	0	2669
BHEL	-0.00058	0.042624	-22.3122	819.2022	74306883	0	2669
BPCL	0.000332	0.027364	-5.85755	157.921	2684320	0	2669
CIPLA	0.000342	0.026352	-17.3538	622.7336	42845723	0	2669
GAIL	0.000199	0.023739	-2.63006	54.03742	292754.5	0	2669
HCLTECH	0.000302	0.032135	-7.39226	165.5796	2963780	0	2669
HDFC	0.00021	0.038564	-25.8802	1068.587	1.27E+08	0	2669
HDFCBANK	0.000255	0.037103	-30.4198	1321.784	1.94E+08	0	2669
HEROMOTOCO	0.0006	0.019482	0.43559	8.927979	3992.366	0	2669
HINDALCO	-0.00104	0.053214	-29.6213	1271.6	1.79E+08	0	2669
HINDUNILVR	0.0007	0.018351	0.373241	7.438357	2252.663	0	2669
ICICIBANK	-0.00017	0.041191	-22.1308	863.7654	82614012	0	2669
INFY	-0.00026	0.030506	-13.4926	308.3661	10450990	0	2669
ITC	-0.00053	0.056071	-40.0418	1862.726	3.85E+08	0	2669
MAHINDRA	0.000343	0.03037	-8.73226	201.7414	4426443	0	2669
MARUTI	0.000887	0.021347	-0.12623	6.341993	1249.164	0	2669
ONGC	-0.00049	0.036324	-23.5156	920.9992	93963760	0	2669
RELIANCE	0.000217	0.02658	-8.12283	216.8377	5114523	0	2669
SBIN	-0.00041	0.050314	-35.114	1596.692	2.83E+08	0	2669
TATAMOTORS	-3.56E-05	0.042239	-22.8511	898.3168	89376019	0	2669
TATAPOWER	-0.00063	0.051452	-34.5541	1562.17	2.71E+08	0	2669
TATASTEEL	-0.00017	0.029492	-0.28732	6.2517	1212.589	0	2669
TCS	0.000195	0.028387	-11.5283	291.1232	9291074	0	2669
NIFTY50	0.000505	0.016255	-0.13364	11.26912	7612.185	0	2669

Source: Computed Value

The following significant observations can be made from the Table 2:

The mean returns of the future close prices of the stocks namely ACC, BPCL, CIPLA, GAIL, HECLTECH, HDFC, HDFCBANK, HEROMOTOCORP, HINDULVR, MAHINDRA, MARUTI, RELIANCE, TCS & NIFTY INDEX are positive which implies the price series had increased and that of AMBUJACEM, BANKBARODA, BHEL, HINDALCO, ICICIBANK, INFOSYS, ITC, ONGC, SBI, TATAMOTORS, TATAPOWER & TATASTEEL are negative implies that the price series had decreased over the period from April 2005 to December 2015. The volatile nature of the stocks is evident from the statistics on standard deviation of daily future close price returns. The least volatile stock is HINDULVR with standard deviation of 0.018351 & NIFTY50 Index with 0.016255. The highest standard deviation is observed in the ITC with 0.056071 indicating the most highly volatile stock in terms of the future close prices. Negatively skewed implies that the return distribution of stock futures have a heavier tail of larger values and hence a higher probability of earning higher returns for all the stocks except for HEROMOTOCORP & HINDULVR having positive skewness which means there are higher chances of generating lower returns. Kurtosis value exceeds 3, showing a leptokurtic curve indicates that the unconditional return distributions are not normal. JB test confirms that the normality is rejected at p-value of almost 1% level of significance.

TABLE 3: DESCRIPTIVE STATISTICS OF LOG TRADING VOLUME (LNTV)

	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob.	Obs
ACC	-8.20E-06	0.535492	0.226724	8.528396	3421.744	0	2669
AMBUJACEM	-0.00016	0.555662	0.241716	8.605629	3520.498	0	2669
BANKBARODA	0.000558	0.560997	0.397996	10.88676	6987.725	0	2669
BHEL	4.94E-05	0.519867	0.368069	10.37367	6106.781	0	2669
BPCL	0.000275	0.562395	0.229893	8.914608	3913.864	0	2669
CIPLA	0.000275	0.521118	0.405335	7.178353	2014.63	0	2669
GAIL	0.000305	0.54108	0.349572	8.594088	3534.492	0	2669
HCLTECH	9.85E-05	0.567062	0.169887	8.619884	3525.142	0	2669
HDFC	0.00099	0.499458	0.159323	11.85359	8728.47	0	2669
HDFCBANK	0.000842	0.479826	0.247424	15.82275	18312.44	0	2669
HEROMOTOCO	0.000415	0.581379	0.207617	9.358389	4515.229	0	2669
HINDALCO	0.000325	0.48984	0.305205	10.15415	5733.287	0	2669
HINDUNILVR	0.000425	0.567436	0.442967	9.778887	5197.676	0	2669
ICICIBANK	0.000328	0.45513	0.071896	12.29443	9609.186	0	2669
INFY	-0.00016	0.491129	0.389083	9.248138	4408.829	0	2669
ITC	0.000315	0.514091	0.407017	10.00985	5538.248	0	2669
MAHINDRA	0.000132	0.507559	0.046215	11.701	8420.248	0	2669
MARUTI	0.000134	0.516561	0.331866	7.383649	2186.013	0	2669
ONGC	-9.69E-05	0.493238	-0.04483	8.16748	2970.473	0	2669
RELIANCE	6.62E-05	0.427935	0.109813	11.35279	7764.273	0	2669
SBIN	6.65E-05	0.459578	0.207083	13.627	12578.19	0	2669
TATAMOTORS	3.26E-05	0.451079	0.160761	10.67715	6565.966	0	2669
TATAPOWER	2.06E-05	0.547282	0.352504	8.468149	3380.477	0	2669
TATASTEEL	-0.00033	0.43702	0.216524	13.78314	12951.73	0	2669
TCS	1.89E-05	0.495936	0.117446	9.823744	5184.383	0	2669
NIFTY50	-4.57E-06	0.391216	0.191517	15.82388	18304.74	0	2669

Source: Computed Value.

The following significant observations can be made from the Table 3:

The mean of the trading volume series of the stocks have positive means except for stocks namely ACC, AMBIJACEM, INFOSYS, ONGC, TATASTEEL & NIFTY50 Index having negative mean indicating lower trading volume. The volatile nature of the stocks is evident from the statistics on standard deviation of daily trading volume. The highest standard deviation is observed in HEROMOTOCORP with 0.581379 standard deviation in its daily trading volume and the lowest volatile in trading volume in REIANCE WITH 0.427935 standard deviation and the least in NIFTY50 index with 0.391216 standard deviation. Negatively skewed implies that the return distribution of stock futures have a heavier tail of larger values and hence a higher probability of earning higher trading volume for ONGC stock and rest all the stocks having positive skewness indicating lower trading volume. Kurtosis value exceeds 3, showing a leptokurtic curve indicates that the unconditional return distributions are not normal. JB test confirms that the normality is rejected at p-value of almost 1% level of significance.

TABLE 4: DESCRIPTIVE STATISTICS OF LOG OPEN INTEREST (LNOI)

ACC         -0.00081         0.350468         2.555326         15.75862         21007.4         0         2669           AMBUJACEM         5.72E-05         0.357414         2.779372         15.43037         20619.54         0         2669           BANKBARODA         0.000555         0.40432         3.102012         20.99252         40281.98         0         2669           BHEL         0.000476         0.363999         2.975188         16.25741         23483.39         0         2669           GPL         0.000144         0.32788         2.491713         15.27158         19508.84         0         2669           GPL         0.00067         0.354197         2.655858         16.04404         22059.44         0         2669           GAIL         -0.00057         0.272197         2.67606         17.17358         25526.26         0         2669           HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HEROMOTOCO         0.000123         0.316858         3.418695         20.71								
AMBUJACEM         5.72E-05         0.357414         2.779372         15.43037         20619.54         0         2669           BANKBARODA         0.000555         0.40432         3.102012         20.99252         40281.98         0         2669           BHEL         0.000476         0.363999         2.975188         16.25741         23483.39         0         2669           BPCL         0.000144         0.32788         2.491713         15.27158         19508.84         0         2669           CIPLA         -0.00067         0.354197         2.655858         16.04404         22059.44         0         2669           GAIL         -0.00057         0.272197         2.67606         17.17358         25526.26         0         2669           HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.0001107         0.425079         2.9877978		Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob.	Obs
BANKBARODA         0.000555         0.40432         3.102012         20.99252         40281.98         0         2669           BHEL         0.000476         0.363999         2.975188         16.25741         23483.39         0         2669           BPCL         0.000144         0.32788         2.491713         15.27158         19508.84         0         2669           CIPLA         -0.00067         0.354197         2.655858         16.04404         22059.44         0         2669           GAIL         -0.00057         0.272197         2.67606         17.17358         25526.26         0         2669           HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947	ACC	-0.00081	0.350468	2.555326	15.75862	21007.4	0	2669
BHEL         0.000476         0.363999         2.975188         16.25741         23483.39         0         2669           BPCL         0.000144         0.32788         2.491713         15.27158         19508.84         0         2669           CIPLA         -0.00067         0.354197         2.655858         16.04404         22059.44         0         2669           GAIL         -0.00057         0.272197         2.67606         17.17358         25526.26         0         2669           HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           INFY         0.000248         0.305722         3.214101         1	AMBUJACEM	5.72E-05	0.357414	2.779372	15.43037	20619.54	0	2669
BPCL         0.000144         0.32788         2.491713         15.27158         19508.84         0         2669           CIPLA         -0.00067         0.354197         2.655858         16.04404         22059.44         0         2669           GAIL         -0.00057         0.272197         2.67606         17.17358         25526.26         0         2669           HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDALCO         0.001107         0.425079         2.987978         16.6811         24786.61         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           INFY         0.000248         0.301363         2.974793 <t< td=""><td>BANKBARODA</td><td>0.000555</td><td>0.40432</td><td>3.102012</td><td>20.99252</td><td>40281.98</td><td>0</td><td>2669</td></t<>	BANKBARODA	0.000555	0.40432	3.102012	20.99252	40281.98	0	2669
CIPLA         -0.00067         0.354197         2.655858         16.04404         22059.44         0         2669           GAIL         -0.00057         0.272197         2.67606         17.17358         25526.26         0         2669           HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           INFY         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MARUTI         -0.00053         0.376441         2.842501         1	BHEL	0.000476	0.363999	2.975188	16.25741	23483.39	0	2669
GAIL         -0.00057         0.272197         2.67606         17.17358         25526.26         0         2669           HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDALCO         0.001107         0.425079         2.987978         16.6811         24786.61         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MARUTI         -0.00053         0.376441         2.842501	BPCL	0.000144	0.32788	2.491713	15.27158	19508.84	0	2669
HCLTECH         0.0001         0.303415         2.799059         18.15802         29036.99         0         2669           HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDALCO         0.001107         0.425079         2.987978         16.6811         24786.61         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501	CIPLA	-0.00067	0.354197	2.655858	16.04404	22059.44	0	2669
HDFC         0.000527         0.298313         3.197138         18.96862         32904.73         0         2669           HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDALCO         0.001107         0.425079         2.987978         16.6811         24786.61         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           INFY         0.000254         0.301363         2.974793         16.85261         25276.82         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.337641         2.842501         15.82001         21871.54         0         2669           MARUTI         -0.00053         0.365008         2.987704	GAIL	-0.00057	0.272197	2.67606	17.17358	25526.26	0	2669
HDFCBANK         0.000755         0.316858         3.418695         20.7166         40104.8         0         2669           HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDALCO         0.001107         0.425079         2.987978         16.6811         24786.61         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           INFY         0.000254         0.301363         2.974793         16.85261         25276.82         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           RELIANCE         -0.00054         0.365008         2.987704 <td>HCLTECH</td> <td>0.0001</td> <td>0.303415</td> <td>2.799059</td> <td>18.15802</td> <td>29036.99</td> <td>0</td> <td>2669</td>	HCLTECH	0.0001	0.303415	2.799059	18.15802	29036.99	0	2669
HEROMOTOCO         0.000223         0.319232         3.006789         17.93393         28823.58         0         2669           HINDALCO         0.001107         0.425079         2.987978         16.6811         24786.61         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           INFY         0.000254         0.301363         2.974793         16.85261         25276.82         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           SBIN         0.000246         0.344187         2.900405	HDFC	0.000527	0.298313	3.197138	18.96862	32904.73	0	2669
HINDALCO         0.001107         0.425079         2.987978         16.6811         24786.61         0         2669           HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           INFY         0.000254         0.301363         2.974793         16.85261         25276.82         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331	HDFCBANK	0.000755	0.316858	3.418695	20.7166	40104.8	0	2669
HINDUNILVR         -0.00095         0.324284         3.092947         16.76979         25341.31         0         2669           ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           INFY         0.000254         0.301363         2.974793         16.85261         25276.82         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331	HEROMOTOCO	0.000223	0.319232	3.006789	17.93393	28823.58	0	2669
ICICIBANK         0.000248         0.305722         3.214101         18.2706         30528.13         0         2669           INFY         0.000254         0.301363         2.974793         16.85261         25276.82         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATASTEEL         -0.00053         0.396282         2.734421	HINDALCO	0.001107	0.425079	2.987978	16.6811	24786.61	0	2669
INFY         0.000254         0.301363         2.974793         16.85261         25276.82         0         2669           ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602 <t< td=""><td>HINDUNILVR</td><td>-0.00095</td><td>0.324284</td><td>3.092947</td><td>16.76979</td><td>25341.31</td><td>0</td><td>2669</td></t<>	HINDUNILVR	-0.00095	0.324284	3.092947	16.76979	25341.31	0	2669
ITC         0.000867         0.28579         3.103127         19.50013         34560.42         0         2669           MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602	ICICIBANK	0.000248	0.305722	3.214101	18.2706	30528.13	0	2669
MAHINDRA         -0.00023         0.330715         3.013795         18.82943         31905.98         0         2669           MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	INFY	0.000254	0.301363	2.974793	16.85261	25276.82	0	2669
MARUTI         -0.00053         0.376441         2.842501         15.82001         21871.54         0         2669           ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	ITC	0.000867	0.28579	3.103127	19.50013	34560.42	0	2669
ONGC         0.000108         0.280175         3.082985         20.70021         39069.35         0         2669           RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	MAHINDRA	-0.00023	0.330715	3.013795	18.82943	31905.98	0	2669
RELIANCE         -0.00054         0.365008         2.987704         16.96566         25660.78         0         2669           SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	MARUTI	-0.00053	0.376441	2.842501	15.82001	21871.54	0	2669
SBIN         0.000246         0.344187         2.900405         15.49684         21109.6         0         2669           TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	ONGC	0.000108	0.280175	3.082985	20.70021	39069.35	0	2669
TATAMOTORS         2.30E-05         0.356943         2.805331         14.92636         19318.85         0         2669           TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	RELIANCE	-0.00054	0.365008	2.987704	16.96566	25660.78	0	2669
TATAPOWER         0.000257         0.324334         2.772501         17.41993         26543.38         0         2669           TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	SBIN	0.000246	0.344187	2.900405	15.49684	21109.6	0	2669
TATASTEEL         -0.00053         0.396282         2.734421         14.45466         17917.61         0         2669           TCS         -0.00012         0.303754         2.798602         15.68787         21386.55         0         2669	TATAMOTORS	2.30E-05	0.356943	2.805331	14.92636	19318.85	0	2669
TCS -0.00012 0.303754 2.798602 15.68787 21386.55 0 2669	TATAPOWER	0.000257	0.324334	2.772501	17.41993	26543.38	0	2669
	TATASTEEL	-0.00053	0.396282	2.734421	14.45466	17917.61	0	2669
NIFTY50 -0.00029 0.218197 3.213629 17.49824 27969.84 0 2669	TCS	-0.00012	0.303754	2.798602	15.68787	21386.55	0	2669
	NIFTY50	-0.00029	0.218197	3.213629	17.49824	27969.84	0	2669

Source: Computed Value.

The following significant observations can be made from the Table  $4\colon$ 

The mean of the open interest series of the stocks have positive means except for stocks namely ACC, CIPLA, GAIL, HINDULVR, MAHINDRA, MARUTI, RELIANCE, TATASTEEL, TCS & NIFTY50 Index having negative mean indicating that the stocks had lower open interest. The volatile nature of the stocks is evident from the statistics on standard deviation of daily open interest series. The highest standard deviation is observed in HINDALCO with 0.425079 standard deviation in its daily open interest and the lowest volatile open interest in GAIL with 0.272197 standard deviation and the least in NIFTY50 index with 0.218197 standard deviation. All the stocks are having positive skewness. Kurtosis value exceeds 3, showing a leptokurtic curve indicates that the unconditional return distributions are not normal. JB test confirms that the normality is rejected at p-value of almost 1% level of significance.

#### UNIT ROOT TEST:

#### **AUGMENTED DICKEY FULLER TEST**

This study uses the standard Augmented Dickey-Fuller test (ADF) to test whether the assumed time series is I (1) which is a necessary condition for the further testing procedure. First, test for the unit roots in the cases when intercept is present in the regression, then when there is intercept and trend, and finally without intercept and trend. If not able to reject the null Hypothesis about the unit root run the ADF on the first differences of the original time series. In this step, we can reject the null Hypothesis about the unit root in order to be able to conclude that the original time series are I (1). The data used for are daily future close prices, trading volume and open interest and covers for a period from 1st April 2005 to 31st December 2015. All the daily values are converted to natural logarithm, calculated as  $R_t = LN (P_t / P_{t-1})$  where  $P_t$  and  $P_{t-1}$  are natural logarithms on day t and t-1 respectively. The variables for the study after converting to natural logarithms the series are found to be stationary at levels and hence we reject the null concluding that the series has a unit root. Thus, the series are stationary since the null hypothesis is rejected that the data is non-stationary or has a unit root as represented in the table 5.

H₀- Has a unit root (i.e. the data is non-stationary)

H<sub>1</sub>- Does not have a unit root (i.e. the data is stationary)

TABLE 5: ADF TEST RESULTS FOR FUTURE CLOSE PRICE, TRADING VOLUME & OPEN INTEREST									2201 07
COMPANY		FUTURE CLOSE PRICE	ALJULIJ FUI	TRADING VOLUME			OPEN INTEREST		
/INDEX		TREND & INTERCEPT	NONE	INTERCEPT	TREND & INTERCEPT	NONE	INTERCEPT	TREND & INTERCEPT	NONE
ACC	-49.44427*	-49.45073*	-49.42802*	-25.40015*		-25.40495*	-20.22992*	-20.22561*	-20.23093*
AMBUJACEM		-53.18925*	-53.18269*		-20.21895*		-18.44813*		-18.44727*
BANKBARODA	-50.92400*	-50.94875*	-50.93301*				-19.54850*		-19.52876*
BHEL	-49.80415*	-49.82187*	-49.80461*		-21.04092*				-22.01805*
BPCL	-51.00927*	-51.00404*	-51.01144*		-26.21742*				-19.38089*
CIPLA	-50.54330*	-50.53977*	-50.54443*		-25.86991*		-11.92826*		-11.93025*
GAIL	-53.82910*	-53.82450*	-53.83524*		-20.21627*		-17.94130*		-17.94488*
HCLTECH		-51.25646*			-20.22731*		-17.67669*		-17.67522*
HDFC		-51.65341*	-51.66772*		-20.86079*		-19.08543*		-19.05194*
HDFCBANK		-51.35435*		-21.26849*			-14.77491*		-14.71983*
HEROMOTOCO		-50.37687*		-21.77134*			-20.55861*		-20.55939*
HINDALCO		-51.40389*		-25.93010*			-19.67183*		-14.85063*
HINDUNILVR		-51.66463*			-20.90820*		-21.61472*		-21.60956*
ICICIBANK	-49.88977*	-49.91406*	-49.89833*	-21.83274*	-21.84288*	-21.83295*	-19.08163*	-19.08127*	-19.06223*
INFY	-52.20194*	-52.20519*	-52.20778*	-25.03938*	-25.03444*	-25.04377*	-18.98747*	-18.98362*	-18.98140*
ITC	-51.51800*	-51.53465*	-51.52308*	-21.38062*	-21.37958*	-21.38377*	-15.34213*	-15.39047*	-15.32804*
MAHINDRA	-48.91175*	-48.90294*	-48.91500*	-21.86845*	-21.86506*	-21.87179*	-19.75003*	-19.74644*	-19.75336*
MARUTI	-49.36379*	-49.35789*	-49.29166*	-20.03533*	-20.03608*	-20.03909*	-20.44012*	-20.43487*	-20.44387*
ONGC	-51.32418*	-51.31807*	-51.32469*	-22.17596*	-22.17266*	-22.18008*	-17.25163*	-17.24617*	-17.24861*
RELIANCE	-50.59414*	-50.59995*	-50.60032*	-21.15472*	-21.15890*	-21.15870*	-15.76358*	-15.76468*	-15.76676*
SBIN	-51.17824*	-51.22239*	-51.18442*	-25.36065*	-25.36008*	-25.36534*	-12.58881*	-12.63073*	-12.57239*
TATAMOTORS	-45.56743*	-48.55966*	-48.57650*	-19.84336*	-19.84069*	-19.84701*	-20.55966*	-20.55492*	-20.55666*
TATAPOWER	-52.42049*	-52.43148*	-52.42237*	-19.95400*	-19.95161*	-19.95764*	-17.37814*	-17.37764*	-17.36776*
TATASTEEL	-49.56544*	-49.56415*	-49.57308*	-21.96474*	-21.96053*	-21.96777*	-21.34337*	-21.36506*	-21.34762*
TCS	-51.33602*	-51.34425*	-51.34323*	-21.25762*	-21.25354*	-21.26159*	-20.07205*	-20.07661*	-20.07542*
NIFTY50	-50.78146*	-50.78380*	-50.74270*	-26.21663*	-26.22492*	-26.22160*	-20.62173*	-20.63365*	-20.62618*

Source: Computed Value. Note: \* denotes rejection of null hypothesis at 5% level of significance

#### **GRANGER CAUSALITY TEST**

The procedure for testing statistical causality between future close prices, trading volume and open interest a direct "Granger-causality" test proposed by C. J. Granger in 1969 is used. Granger causality may have more to do with precedence, or prediction, than with causation in the usual sense. It suggests that while the past can cause/predict the future, the future cannot cause/predict the past. According to Granger, X causes Y if the past values of X can be used to predict Y more accurately than simply using the past values of Y. In other words, if past values of X statistically improve the prediction of Y, then we can conclude that X "Granger-causes" Y. To determine whether a cause and effect relationship exists between future close prices, trading volume and open interest the 8 lagged values have been used from the VAR Lag Order Selection Criteria. In case of Granger causality between the two variables, null hypothesis is rejected if the probability value is less than alpha (0.05).

 $H_{01}$ - Trading Volume does not granger cause Future Close Price

 $H_{02}$ - Future Close Price does not granger cause Trading Volume

H<sub>03</sub>- Open Interest does not granger cause Future Close Price

 $\it H_{04} ext{-}$  Future Close Price does not granger cause Open Interest

H<sub>05</sub>- Open Interest does not granger cause Trading Volume H<sub>06</sub>- Trading Volume does not granger cause Open Interest

To select the lags VAR Lag Order Selection Criteria is used so that causality test is run using optimum lags of 8 for all stocks.

TABLE 6: GRANGER CAUSALITY TEST RESULTS							
COMPANY	LAGS	LNTV -> LNFCL	LNFCL -> LNTV	LNOI -> LNFCL	LNFCL -> LNOI	LNOI -> LNTV	LNTV -> LNOI
ACC	8	0.87600	0.96229	1.27730	1.193396	4.88061	2.25588
ACC	٥	(0.5359)	(0.4637)	(0.2506)	(0.2984)	(5.E-06)*	(0.0212)*
AMBUJACEM	8	0.50221	1.07044	0.23488	1.96753	7.32736	2.76505
AIVIBUJACEIVI	٥	(0.8554)	(0.3808)	(0.9845)	(0.0467)*	(1.E-09)*	(0.0048)*
DANKBARODA	8	2.40102	1.31690	1.43122	2.69714	5.30968	3.13318
BANKBARODA	8	(0.0140)*	(0.2300)	(0.1781)	(0.0059)*	(1E-06)*	(0.0016)*
BUE		0.27694	0.41900	0.92935	1.60358	5.66984	14.3556
BHEL	8	(0.9736)	(0.9102)	(0.4907	(0.1185)	(4.E-07)*	(1.E-20)*
	_	1.07640	2.01943	2.49853	1.47506	2.10634	2.05129
BPCL	8	(0.3765)	(0.0406)*	(0.0106)*	(0.1609)	(0.0321)*	(0.0373)*
0.0.		1.97148	1.47851	1.83609	2.35204	4.75999	0.79238
CIPLA	8	(0.0462)*	(0.1596)	(0.0660)	(0.0161)*	(8.E-06)*	(0.6094)
	_	0.97848	0.39780	0.35387	0.31639	3.18222	2.94172
GAIL	8	(0.4507)	(0.9223)	(0.9444)	(0.9602)	(0.0013)*	(0.0028)*
		0.62998	0.39574	2.12824	2.22376	6.26226	0.76542
HCLTECH	8	(0.7532)	(0.9234)	(0.0302)*	(0.0232)*	(5.E-08)*	(0.6334)
		0.63315	1.37799	1.02976	2.38206	7.11389	3.29489
HDFC	8	(0.7505)	(0.2009)	(0.4109)	(0.0148)*	(2.E-09)*	(0.0009)*
		0.81879	0.91320	0.48059	0.45578	8.86705	7.72059
HDFCBANK	8	(0.5859)	(0.5042)	(0.8707)	(0.8874)	(5.E-12)*	(3.E-10)*
		1.85624	0.80576	0.76149	2.93770	2.81814	4.45168
HEROMOTOCO	8	(0.0626)	(0.5975)	(0.6370)	(0.0029)*	(0.0041)*	(2.E-05)*
HINDALCO	8	1.17936	1.02161	3.63050	1.45610	6.47234	1.99115
	8 8	(0.3074)	(0.4171)	(0.0003)*	(0.1682)	(2.E-08)*	(0.0438)*
HINDUNILVR		1.66319	1.45719	0.66046	0.47284	4.17845	6.62238
		(0.1023)	(0.1678)	(0.7268)	(0.8760)	(6.E-05)*	(1.E-08)*
ICICIBANK		0.77736	0.35577	2.57175	1.20922	4.95258	2.51326
		(0.6228)	(0.9435)	(0.0085)*	(0.2892)	(4.E-06)*	(0.0101)*
INFY		1.43499	0.48501	2.74565	1.97641	8.32323	1.68752
		(0.1766)	(0.8676)	(0.0051)*	(0.0456)*	(3.E-11)*	(0.0963)
ITC	8	1.67823	0.83769	1.12320	4.36115	2.78304	1.24084
		(0.0986)	(0.5692)	(0.3439)	(3.E-05)*	(0.0046)*	(0.2707)
MAHINDRA	8	0.59680	0.60468	3.35103	0.97113	3.11027	2.43893
		(0.7813)	(0.7747)	(0.0008)*	(0.4566)	(0.0017)*	(0.0126)*
MARUTI	8	1.12695	0.36833	1.31380	1.43540	3.30797	6.21823
Wirtitoti	٥	(0.3414)	(0.9376)	(0.2316)	(0.1764)	(0.0009)*	(5.E-08)*
ONGC	8	1.38749	0.56186	3.92663	0.82005	5.89598	1.51142
ONGC	0	(0.1967)	(0.8098)	(0.0001)*	(0.5848)	(2.E-07)*	(0.1478)
RELIANCE	8	0.23528	0.64271	0.54408	0.85111	8.47813	3.55988
RELIAINCE	٥	(0.9844)	(0.7422)	(0.8239)	(0.5575)	(2.E-11)*	(0.0004)*
CDINI	8	1.18914	0.84973	0.41133	2.42117	10.2656	2.64491
SBIN	8	(0.3014)	(0.5587)	0.9147)	(0.0132)*	(3.E-14)*	(0.0069)*
		0.88336	1.05992	0.20330	0.59096	5.21307	3.02438
TATAMOTORS	8	(0.5296)	(0.3885)	(0.9904)	(0.7861)	(2.E-06)*	(0.0022)*
		0.45691	1.09727	0.38908	1.14243	2.90871	2.45096
TATAPOWER	8	(0.8867)	(0.3618)	(0.9270)	(0.3311)	(0.0031)*	(0.0121)*
		0.69792	1.28310	3.30496	0.43100	8.61865	2.09519
TATASTEEL	8	(0.6937)	(0.2475)	(0.0009)*	(0.9031)	(1.E-11)*	(0.0331)*
		1.44022	0.94181	0.51530	1.09507	12.6793	1.54028
TCS	8	(0.1745)	(0.4804)	(0.8458)	(0.3633)	(5.E-18)	(0.1380)
	1	0.63561	7.69739	1.57242	1.03338	13.0698	2.16599
NIFTY50	8						
	<u> </u>	(0.7484)	(3.E-10)*	(0.1278)	(0.4082)	(1.E-18	(0.0272)*

Source: Computed Value. Note: \* denotes rejection of null hypothesis at 5% level of significance

Table 6 represents the results from Granger Causality test for select 25 stocks and NIFTY50 Index. We reject the null hypothesis that there exists bidirectional causality for all the stocks from Open Interest to Trading Volume and Trading Volume to Open Interest except in case of HCLTECH, INFOSYS & ITC there exist a unidirectional causality from Open Interest to Trading Volume and for Nifty50 from Trading Volume to Open Interest. There is no causality for TCS stock from Trading Volume to Open Interest. There exists a unidirectional causality from Open Interest to Future Close Price except for ACC, HDFCBANK, HINDULVR, RELIANCE, TATAMOTORS, TATAPOWER, and TCS & NIFTY50. Bi-directional causality is being observed from Open Interest to Future Close Price for HCLTECH & INFOSYS. There exists no causality from Trading Volume to Future Close Price except for BANKBARODA from trading volume to future close price and for CIPLA & BPCL from Future Close Price to Trading Volume. Overall it can be concluded that there are high chances of predicting Open Interest from Trading Volume or vice-versa due to significant results from the causality test for almost all the stocks is evident.

#### **CO-INTEGRATION**

With the previous results of unit root tests, we have two *I* (1) variables. We can test whether there is a long-run relationship between Future close prices, trading volume and open interest. Co-integration test can be used to examine stable long-run relations between two or more variables. Co-integration means that one or more combination of the variables is stationary even though each variable is not. If we can reject the null hypothesis about the unit root, we can conclude that the variables are co-integrated of the orders CI (1). If there exists co-integration between variables, we can test short-run dynamics between two series within the framework of an error correction model.

To investigate the existence of a long-term relationship between real and financial variables, we explore existence of any significant long-run relationships among the variables in our model. If the real and financial variables are co-integrated with one another, then this will provide statistical evidence for the existence of a long-run relationship. Though, a set of economic series are not stationary, there may exist some linear combination of the variables which exhibit a dynamic equilibrium in the long run (Engle and Granger 1987).

Since the series of all the variables are integrated of same order, the Johansens's Co-integration test is used to examine the long run relationship and the results are summarised in the table 7.

 $\emph{H}_{0} ext{-}$  there is no co-integration between Future Close Price, Trading Volume & Open Interest

 $\textit{H}_{1} ext{-}$  there is co-integration between Future Close Price, Trading Volume & Open Interest

STOCK	NO.OF CE(S)	EIGENVALUE	TRACE STATISTIC	PROBABILIT
ACC	NONE	0.075218	270.2254	0.0001*
7100	AT MOST 1	0.021390	61.90758	0.0000*
	AT MOST 2	0.001615	4.305711	0.0000*
AMBUJACEM	NONE	0.093350	333.8491	0.0001*
AIVIBUJACEIVI	AT MOST 1			
		0.019674	72.78044	0.0000*
	AT MOST 2	0.007422	19.84588	0.0000*
BANKBARODA	NONE	0.061583	191.9182	0.0001*
	AT MOST 1	0.007150	22.59255	0.0036*
	AT MOST 2	0.001304	3.475609	0.0623
BHEL	NONE	0.043583	180.1766	0.0001*
	AT MOST 1	0.022257	61.46569	0.0000*
	AT MOST 2	0.000564	1.504216	0.2200
BPCL	NONE	0.073203	250.5278	0.0001*
	AT MOST 1	0.017101	48.00825	0.0000*
	AT MOST 2	0.000771	2.055812	0.1516
CIPLA	NONE	0.087576	304.6935	0.0001*
o 2 ·	AT MOST 1	0.021406	60.53549	0.0000*
	AT MOST 2	0.001085	2.891380	0.0891
CAIL				
GAIL	NONE	0.110843	363.6489	0.0001*
	AT MOST 1	0.016165	50.67891	0.0000*
	AT MOST 2	0.002723	7.264793	0.0070*
HCLTECH	NONE	0.080714	295.0346	0.0001*
	AT MOST 1	0.025150	70.83714	0.0000*
	AT MOST 2	0.001118	2.979565	0.0843
HDFC	NONE	0.050774	169.4764	0.0001*
	AT MOST 1	0.009677	30.66045	0.0001*
	AT MOST 2	0.003077	4.754302	0.0001
HDFCBANK	NONE	0.001783	342.6026	0.0292
IIDFCDAINN				
	AT MOST 1	0.003111	13.59150	0.0948
	AT MOST 2	0.001984	5.291357	0.0214*
HEROMOTOCO	NONE	0.111727	406.8214	0.0001*
	AT MOST 1	0.033330	91.20161	0.0000*
	AT MOST 2	0.000336	0.896278	0.3438
HINDALCO	NONE	0.056257	282.7167	0.0001*
	AT MOST 1	0.035974	128.4684	0.0001*
	AT MOST 2	0.011520	30.86704	0.0000*
HINDULVR	NONE	0.097707	404.8178	0.0001*
HINDOLVK				
	AT MOST 1	0.047955	130.9168	0.0001*
ICICID	AT MOST 2	5.77E-08	0.000154	0.9917
ICICIBANK	NONE	0.025149	103.9706	0.0000*
	AT MOST 1	0.010718	36.11634	0.0000*
	AT MOST 2	0.002778	7.410052	0.0065*
INFOSYS	NONE	0.117687	394.1586	0.0001*
	AT MOST 1	0.020173	60.60482	0.0000*
	AT MOST 2	0.002367	6.313846	0.0120*
ITC	NONE	0.108459	378.2975	0.0001*
-	AT MOST 1	0.020385	72.46049	0.0001
			17.59405	
N 1 2 N 1	AT MOST 2	0.006583		0.0000*
M&M	NONE	0.100254	338.1273	0.0001*
	AT MOST 1	0.019675	56.69403	0.0000*
	AT MOST 2	0.001410	3.757834	0.0526
MARUTI	NONE	0.120288	461.8534	0.0001*
	AT MOST 1	0.042533	120.4327	0.0001*
	AT MOST 2	0.001742	4.643651	0.0312*
ONGC	NONE	0.073979	237.8241	0.0001*
	AT MOST 1	0.011445	33.07228	0.0001*
	AT MOST 2	0.000903	2.406589	0.1208
RELIANCE	NONE			0.1208
MELIAINCE		0.031077	145.2358	
	AT MOST 1	0.021298	61.13175	0.0000*
	AT MOST 2	0.001419	3.781998	0.0518
SBIN	NONE	0.055732	185.5875	0.0001*
	AT MOST 1	0.010814	32.81904	0.0001*
	AT MOST 2	0.001445	3.852466	0.0497*
TATAMOTORS	NONE	0.079052	256.2489	0.0001*
	AT MOST 1	0.012623	36.86329	0.0000*
	AT MOST 2	0.001133	3.021238	0.0822
TATAPOWER	NONE	0.042181	146.2759	0.0022
MAIOWER				
	AT MOST 1	0.011220	31.46558	0.0001*
	AT MOST 2	0.000528	1.405941	0.2357
TATASTEEL	NONE	0.057867	273.1844	0.0001*
	AT MOST 1	0.040346	114.3876	0.0001*
	AT MOST 2	0.001754	4.677142	0.0306*
TCS	NONE	0.100684	365.0457	0.0001*
. 50	AT MOST 1	0.030291	82.33842	0.0001
	AT MOST 2	0.000148	0.394928	0.5297
NUETY CO			270.9873	(1 (1/1/11)1 *
NIFTY50	NONE	0.078680		0.0001*
NIFTY50	NONE AT MOST 1	0.078680	52.67701	0.0001
NIFTY50				

AT MOST 2 0.000630 1.678458 0.1951

Source: Computed Value. Note: \* denotes rejection of hypothesis at 5% level of significance

Johansen Co-integration test is used to examine the long run relationship. It is well known that Johansen Co-integration is very sensitive to the choice of lag length. So first a VAR model is fitted to the time series data in order to find an appropriate lag structure. The AIC, SC, LR are used to select the number of lags required in co-integration test. The co-integration test indicates there exist two co-integrating vector at the 5% level of significance. This indicates that the future close price, trading volume & open interest are co-integrated in long run. The trace test indicates the existence of two co-integrating equation at 5 % level of significance. Maximum Eigen Value test makes the confirmation of this result. Thus the 3 variables of the study have a long run equilibrium relationship between them. But in short run there may be deviations from this equilibrium & we have to verify whether such equilibrium converges to long run equilibrium or not. Thus VECM can be used to generate the short run dynamics.

TABLE 9 VECTOR REPORT OF SELECTION RESULTS   COLD INTO 1. COLD INTO	2011211011	(=017),1880	DE NO. 09 (SEP		RROR CORRECTIO	N RESULTS		100111	<u> </u>
Dec   Dec	STOCKS	C(1): LNF CL (-1)	C(2): D LNF CL (-1)				C(6): D LNOI (-1)	C(7): D LNOI (-2)	C(8): C
3.446942									6.07E-06
AMBILIACE   0.00046			-33.9726			2.754907			0.012762
1,27805   37,7906   38,7285   3,20793   0,901584   0,46917   0,9008		0.0006*	0*	0*	0.0005*			0.59	0.9898
MARIAGANDIA	AMBUJACEM	-0.00044	-0.69247	-0.34314	0.004604	0.001846	-0.001	-0.00068	5.92E-06
BANISARADOA   0.00044		-1.27605	-37.7906	-18.7285	1.290793	0.904584	-0.44547	-0.30468	0.005794
2,04572		0.2021	0*	0*	0.1969	0.3658	0.656	0.7606	0.9954
Delic   7,185-55   -0.62972   -0.31946   -0.00127   -0.00054   -0.00075   -0.00064   -0.00057   -0.00064   -0.00064   -0.00064   -0.00064   -0.00064   -0.00064   -0.00064   -0.00064   -0.00064   -0.00066   -	BANKBARODA	0.004484	-0.65598	-0.33077	0.004457	-0.00037	-0.0004	0.000248	2.36E-05
Defect   7,185-05   -0,62972   -0,31496   0,000321   0,000327   0,00040   0,00052   0,000529   0,		2.04573	-35.512	-18.0025	1.396495	-0.20397	-0.20092	0.139012	0.025799
0.318527   -34.1699		0.0409*	0*	0*	0.1627	0.8384	0.8408	0.8895	0.9794
BPC    0.014522	BHEL	7.18E-05	-0.62972	-0.31946	0.00182	0.000421	-0.00375	-0.0004	-4.53E-06
EPCI									-0.00474
2.811966			-	~					0.9962
CPUA	BPCL								-1.45E-06
CPFLA									-0.00238
0.89417			-	~					0.9981
CALL   0.0034	CIPLA								1.02E-07
GAIL   0.00134   0.49064   0.49266   0.00038   0.00038   0.00123   0.00038									0.000172
-0.3855   -37.8422   -19.9158   0.18025   0.851148   -0.7966]   -0.25191			-	-					0.9999
NETTECH   0.02015	GAIL								1.73E-05
HCTECH   0.002115									0.032352
2.057605	HOLTECH		-	-					0.9742
NOTE	TULIEUH								-9.45E-07
IDPICE   -0.00273									-0.0013 0.999
1,1983	HDEC			-					8.96E-06
HINDLUVIR   0.00055   0.65408   0.33508   0.000741   0.00075   0.43608   0.000641   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00066   0.00074   0.0067   0.0623   0.06447   0.3916   0.9   0.9   0.00976   0.00076   0.00076   0.00076   0.00075   0.00074   0.00076   0.00076   0.00076   0.00076   0.00077   0.06423   0.00084   0.0006   0.00097   0.	ווטרכ								0.010301
IDPICBANK									0.010301
0.35683   33.6942   143.666   1.436605   1.356414   0.16362   0.4647   0.3716   0.672   0.4643   0.3716   0.072   0.4643   0.075   0.4643   0.00057   0.400575   0.40071   0.31487   0.00376   0.00238   0.00134   0.0005   0.2224   0.00057   0.22304   0.00057   0.22304   0.00057   0.2255   0.6295   0.2224   0.00057	HDECBANK		-	~					7.83E-06
Netronomic   Net									0.0094
HEROMOTOCO									0.9925
17.0753	HEROMOTOCO		•	-					-1.58E-06
									-0.00357
HINDALCO									0.9972
New York   New York	HINDALCO		-0.66018	-0.32067					-6.45E-07
HINDULVR							-0.58653		-0.00054
-0.14986		0.9986	0*	0*	0.5777	0.5479	0.5576	0*	0.9996
CICIBANK   0.00012   -0.65226   -0.32252   0.000741   -0.00193   0.001049   -0.00229   -0.00229   -0.00239   -0.00239   -0.00239   -0.00239   -0.00239   -0.00239   -0.00239   -0.00239   -0.00332	HINDULVR	-0.00055	-0.67036	-0.32897	0.0101103	0.000755	-1.18E-05	0.001049	9.05E-06
CICIBANK		-0.14986	-36.1912	-17.8232	0.794556	0.934784	-0.01029	1.033595	0.022016
0.173932   -34.382   -17.5596   0.185081   -0.85489   -0.57997   -0.12282     0.8619		0.8809	0*	0*	0.4269	0.35	0.9918	0.3014	0.9824
INFOSYS   -0.01253   -0.65364   -0.31809   0.010924   0.005264   -0.00482   -0.00566   -0.48493   -35.6049   -17.3737   4.397443   3.544409   -2.62085   -3.14749   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0066   -0.0067   -0.0068   -0.0017*   -0.0068   -0.0007*   -0.00088   -0.0017*   -0.0065   -0.25495   -34.9913   -17.8353   3.061387   1.365329   0.079093   -1.83586   -0.0011*   -0.0065   -0.0022*   -0.0723   -0.00267   -0.00267   -0.00233   -0.002649   -0.62246   -0.29082   0.006472   0.002075   -0.00267   -0.00233   -0.00267   -0.00267   -0.00233   -0.00267	ICICIBANK	0.00012	-0.63226	-0.32252	0.000741	-0.00193	-0.00136	-0.00029	-2.69E-06
INFOSYS		0.173932	-34.382	-17.5596	0.185081	-0.85489	-0.57997	-0.12282	-0.00292
4.8493   35.6049   17.3737   4.397443   3.544409   2.62085   3.14749		0.8619	-	0*	0.8532	0.3927	0.562	0.9023	0.9977
0°	INFOSYS								2.85E-06
ITC									0.004156
-3.25495 -34.9913 -17.8353 3.061387 1.365329 0.079093 -1.83586 0.0011* 0* 0.0022* 0.1723 0.937 0.0665 M&M 0.00249 -0.62246 -0.29082 0.006472 0.002075 -0.00237 0.0665 M&M 0.002459 -0.62246 -0.29082 0.006472 0.002075 -0.00267 -0.00233									0.9967
M&M   0.00245	ITC								-1.60E-06
M&M         0.002459         -0.62246         -0.29082         0.006472         0.002075         -0.00267         -0.00233           2.224465         -33.4385         -15.6483         2.502801         1.401838         -1.67957         -1.46504           MARUTI         0.00269         -0.62579         -0.29418         0.002818         0.000674         0.001009         0.000614           1.280695         -33.336         -15.7149         1.582966         0.652351         0.949262         0.617015           0.2004         0*         0*         0.1135         0.5142         0.3426         0.5373           ONGC         0.000575         -0.65264         -0.31693         0.003263         -0.00089         0.001007         -0.00166           0.608965         -35.3002         -17.1865         0.996747         -0.47699         0.417769         -0.84684           0.5426         0*         0*         0*         0.319         0.6334         0.6761         0.3972           RELIANCE         -0.00366         -0.62362         -0.29176         -0.00159         0.000135         -0.00094         0.0084           -0.65772         -33.5782         -15.7002         -0.57912         0.085915         -0.71409									-0.00127
1.64504   0.0262*			-	-					0.999
MARUTI   0.00262*	M&M								1.32E-05
MARUTI         0.00269         -0.62579         -0.29418         0.002818         0.000674         0.001009         0.000614           1.280695         -33.386         -15.7149         1.582966         0.652351         0.949262         0.617015           0.2004         0*         0*         0.1135         0.5142         0.3426         0.5373           ONGC         0.000575         -0.65264         -0.31693         0.003263         -0.00089         0.001007         -0.00196           0.608965         -35.3002         -17.1865         0.996747         -0.47699         0.417769         -0.84684           0.5426         0*         0*         0.319         0.6334         0.6761         0.3972           RELIANCE         -0.00086         -0.62362         -0.29176         -0.00195         -0.00135         -0.00084           -0.65772         -33.5782         -15.7002         -0.57912         0.085915         -0.71409         0.649733           0.5108         0*         0*         0.5526         0.9315         0.4752         0.5159           SBIN         -0.00434         -0.64904         -0.32302         -0.00854         -0.0091         0.001518           1.184307         -35.247									0.019397
1.280695	MAADUT		-	~					0.9845
0.2004         0*         0.1135         0.5142         0.3426         0.5373           ONGC         0.000575         -0.65264         -0.31693         0.003263         -0.00089         0.001007         -0.00196           0.608965         -35.3002         -17.1865         0.996747         -0.47699         0.417769         -0.84684           0.5426         0*         0*         0.319         0.6334         0.6761         0.3972           RELIANCE         -0.00086         -0.62362         -0.29176         -0.00159         0.000135         -0.00094         0.00084           -0.65772         -33.5782         -15.7002         -0.57912         0.085915         -0.71409         0.649733           SBIN         -0.00434         -0.64904         -0.32302         -0.00854         -0.00361         -0.00091         0.001518           -1.84307         -35.247         -17.554         -1.71105         -1.2901         -0.35875         0.592559           0.0654         0*         0*         0.0872         0.1971         0.7198         0.5535           TATAMOTORS         0.002117         -0.60248         -0.29974         0.010001         0.004803         0.001472         0.00398           1.83174	IVIAKUTI								2.23E-05
ONGC         0.000575         -0.65264         -0.31693         0.003263         -0.00089         0.001007         -0.00196           0.608965         -35.3002         -17.1865         0.996747         -0.47699         0.417769         -0.84684           0.5426         0*         0*         0.319         0.6334         0.6761         0.3972           RELIANCE         -0.00086         -0.62362         -0.29176         -0.00159         0.00035         -0.00094         0.00084           -0.65772         -33.5782         -15.7002         -0.57912         0.085915         -0.71409         0.649733           0.5108         0*         0*         0.5626         0.9315         0.4752         0.5159           SBIN         -0.00434         -0.64904         -0.32302         -0.00854         -0.00361         -0.00091         0.001518           -1.84307         -35.247         -17.554         -1.71105         -1.2901         -0.35875         0.59259           0.0654         0*         0*         0.0872         0.1971         0.7198         0.5535           TATAMOTORS         0.002117         -0.60248         -0.29974         0.010001         0.004803         0.001472         0.000398									0.046539
0.608965	ONGC								0.9629 -5.35E-06
RELIANCE         0.8426         0*         0.8319         0.6334         0.6761         0.3972           RELIANCE         -0.00086         -0.62362         -0.29176         -0.00159         0.000135         -0.00094         0.00084           -0.65772         -33.5782         -15.7002         -0.57912         0.085915         -0.71409         0.649733           0.5108         0*         0.5626         0.9315         0.4752         0.5159           SBIN         -0.00434         -0.64904         -0.32302         -0.00854         -0.000361         -0.00091         0.001518           -1.84307         -35.247         -17.554         -1.71105         -1.2901         -0.35875         0.592559           0.0654         0*         0*         0.0872         0.1971         0.7198         0.5535           TATAMOTORS         0.002117         -0.60248         -0.29974         0.010001         0.004803         0.001472         0.000398           1.831746         -32.4752         -16.1814         2.445949         2.060553         0.718645         0.19345           0.0671         0*         0*         0.0145*         0.03934*         0.4724         0.8467           TATAPOWER         0.000567	DINGC								-0.00655
RELIANCE         -0.00086         -0.62362         -0.29176         -0.00159         0.000135         -0.00094         0.00084           -0.65772         -33.5782         -15.7002         -0.57912         0.085915         -0.71409         0.649733           0.5108         0*         0*         0.5626         0.9315         0.4752         0.5159           SBIN         -0.00434         -0.64904         -0.32302         -0.00854         -0.00361         -0.00091         0.001518           -1.84307         -35.247         -1.7554         -1.71105         -1.2901         -0.35875         0.592559           0.0654         0*         0*         0.0872         0.1971         0.7198         0.5535           TATAMOTORS         0.002117         -0.60248         -0.29974         0.010001         0.004803         0.001472         0.000398           1.831746         -32.4752         -16.1814         2.445949         2.060553         0.718645         0.193345           0.0671         0*         0*         0*         0.0145*         0.0394*         0.4724         0.8467           TATAPOWER         0.000567         -0.67181         -0.32956         0.005176         0.000482         0.000487         -0.									0.9948
-0.65772 -33.5782 -15.7002 -0.57912 0.085915 -0.71409 0.649733 0.5108 0* 0* 0.5626 0.9315 0.4752 0.5159  SBIN -0.00434 -0.64904 -0.32302 -0.00854 -0.00361 -0.00091 0.001518 -1.84307 -35.247 -17.554 -1.71105 -1.2901 -0.35875 0.592559 0.0654 0* 0* 0.0872 0.1971 0.7198 0.5535  TATAMOTORS 0.002117 -0.60248 -0.29974 0.010001 0.004803 0.001472 0.000398 1.831746 -32.4752 -16.1814 2.445949 2.060553 0.718645 0.193345 0.0671 0* 0* 0.00145* 0.0394* 0.4724 0.8467  TATAPOWER 0.000567 -0.67181 -0.32956 0.005176 0.000482 0.000487 -0.00167 1.063393 -36.4686 -17.9123 1.29886 0.20577 0.169155 -0.59321 0.2877 0* 0* 0.1941 0.837 0.8657 0.5531 TATASTEEL 0.002752 -0.6507 -0.32088 0.004721 0.002259 -0.00235 -0.00136 1.184817 -35.2087 -17.4196 1.596251 1.352405 -1.85366 -1.06931 TCS -3.20E-06 -0.633 -0.31846 0.001744 -8.78E-05 -0.00117 -0.00147 0.9685 0* 0* 0.4737 0.9507 0.482 0.3798 NIFTYSO 0.014997 -0.65103 -0.32431 -0.0049 -0.00294 -0.00015 2.37E-05 2.494774 -34.2151 -17.3006 -2.51055 -2.72736 -0.1104 0.017811	RELIANCE		-						8.27E-06
0.5108									0.01369
SBIN         -0.00434         -0.64904         -0.32302         -0.00854         -0.00361         -0.00091         0.001518           -1.84307         -35.247         -17.554         -1.71105         -1.2901         -0.35875         0.592559           0.0654         0*         0*         0.0872         0.1971         0.7198         0.5535           TATAMOTORS         0.002117         -0.60248         -0.29974         0.010001         0.004803         0.001472         0.000398           1.831746         -32.4752         -16.1814         2.445949         2.060553         0.718645         0.193345           0.0671         0*         0*         0.0145*         0.0394*         0.4724         0.8467           TATAPOWER         0.000567         -0.67181         -0.32956         0.005176         0.000482         0.000487         -0.00167           1.063393         -36.4686         -17.9123         1.29886         0.20577         0.169155         -0.59321           0.2877         0*         0*         0.1941         0.837         0.8657         0.5531           TATASTEEL         0.002752         -0.6507         -0.32088         0.004721         0.002259         -0.00235         -0.00136									0.9891
-1.84307	SBIN								9.41E-06
0.0654         0*         0*         0.0872         0.1971         0.7198         0.5535           TATAMOTORS         0.002117         -0.60248         -0.29974         0.010001         0.004803         0.001472         0.000398           1.831746         -32.4752         -16.1814         2.445949         2.060553         0.718645         0.193345           0.0671         0*         0*         0.0145*         0.0394*         0.4724         0.8467           TATAPOWER         0.000567         -0.67181         -0.32956         0.005176         0.000482         0.000487         -0.00167           1.063393         -36.4686         -17.9123         1.29886         0.20577         0.169155         -0.59321           0.2877         0*         0*         0.1941         0.837         0.8657         0.5531           TATASTEEL         0.002752         -0.6507         -0.32088         0.004721         0.002259         -0.00235         -0.00136           1.184817         -35.2087         -17.4196         1.596251         1.352405         -1.85366         -1.06931           TCS         -3.20E-06         -0.633         -0.31846         0.001744         -8.78E-05         -0.00117         -0.00147	- ***								0.008322
TATAMOTORS 0.002117									0.9934
1.831746       -32.4752       -16.1814       2.445949       2.060553       0.718645       0.193345         0.0671       0*       0*       0.0145*       0.0394*       0.4724       0.8467         TATAPOWER       0.000567       -0.67181       -0.32956       0.005176       0.000482       0.000487       -0.00167         1.063393       -36.4686       -17.9123       1.29886       0.20577       0.169155       -0.59321         0.2877       0*       0*       0.1941       0.837       0.8657       0.5531         TATASTEEL       0.002752       -0.6507       -0.32088       0.004721       0.002259       -0.00235       -0.00136         1.184817       -35.2087       -17.4196       1.596251       1.352405       -1.85366       -1.06931         0.2362       0*       0*       0*       0.1106       0.1764       0.0639       0.285         TCS       -3.20E-06       -0.633       -0.31846       0.001744       -8.78E-05       -0.00117       -0.00147         -0.03951       -34.3437       -17.287       0.716598       -0.06184       -0.70322       -0.87843         0.9685       0*       0*       0*       0.4737       0.9507       0.482 <td>TATAMOTORS</td> <td></td> <td>-0.60248</td> <td>-0.29974</td> <td></td> <td></td> <td></td> <td></td> <td>1.71E-05</td>	TATAMOTORS		-0.60248	-0.29974					1.71E-05
0.0671         0*         0*         0.0145*         0.0394*         0.4724         0.8467           TATAPOWER         0.000567         -0.67181         -0.32956         0.005176         0.000482         0.000487         -0.00167           1.063393         -36.4686         -17.9123         1.29886         0.20577         0.169155         -0.59321           0.2877         0*         0*         0.1941         0.837         0.8657         0.5531           TATASTEEL         0.002752         -0.6507         -0.32088         0.004721         0.002259         -0.00235         -0.00136           1.184817         -35.2087         -17.4196         1.596251         1.352405         -1.85366         -1.06931           0.2362         0*         0*         0*         0.1106         0.1764         0.0639         0.285           TCS         -3.20E-06         -0.633         -0.31846         0.001744         -8.78E-05         -0.00117         -0.00147           -0.03951         -34.3437         -17.287         0.716598         -0.06184         -0.70322         -0.87843           0.9685         0*         0*         0.4737         0.9507         0.482         0.3798           NIFTY50 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.018017</td>									0.018017
TATAPOWER         0.000567         -0.67181         -0.32956         0.005176         0.000482         0.000487         -0.00167           1.063393         -36.4686         -17.9123         1.29886         0.20577         0.169155         -0.59321           0.2877         0*         0*         0.1941         0.837         0.8657         0.5531           TATASTEEL         0.002752         -0.6507         -0.32088         0.004721         0.002259         -0.00235         -0.00136           1.184817         -35.2087         -17.4196         1.596251         1.352405         -1.85366         -1.06931           0.2362         0*         0*         0.1106         0.1764         0.0639         0.285           TCS         -3.20E-06         -0.633         -0.31846         0.001744         -8.78E-05         -0.00117         -0.00147           -0.03951         -34.3437         -17.287         0.716598         -0.06184         -0.70322         -0.87843           0.9685         0*         0*         0.4737         0.9507         0.482         0.3798           NIFTY50         0.014997         -0.65103         -0.32431         -0.0049         -0.00294         -0.00015         2.37E-05									0.9856
0.2877         0*         0*         0.1941         0.837         0.8657         0.5531           TATASTEEL         0.002752         -0.6507         -0.32088         0.004721         0.002259         -0.00235         -0.00136           1.184817         -35.2087         -17.4196         1.596251         1.352405         -1.85366         -1.06931           0.2362         0*         0*         0.1106         0.1764         0.0639         0.285           TCS         -3.20E-06         -0.633         -0.31846         0.001744         -8.78E-05         -0.00117         -0.00147           -0.03951         -34.3437         -17.287         0.716598         -0.06184         -0.70322         -0.87843           0.9685         0*         0*         0.4737         0.9507         0.482         0.3798           NIFTY50         0.014997         -0.65103         -0.32431         -0.0049         -0.00294         -0.00015         2.37E-05           2.494774         -34.2151         -17.3006         -2.51055         -2.72736         -0.1104         0.017811	TATAPOWER		-0.67181	-0.32956					1.96E-05
TATASTEEL         0.002752         -0.6507         -0.32088         0.004721         0.002259         -0.00235         -0.00136           1.184817         -35.2087         -17.4196         1.596251         1.352405         -1.85366         -1.06931           0.2362         0*         0*         0.1106         0.1764         0.0639         0.285           TCS         -3.20E-06         -0.633         -0.31846         0.001744         -8.78E-05         -0.00117         -0.00147           -0.03951         -34.3437         -17.287         0.716598         -0.06184         -0.70322         -0.87843           0.9685         0*         0*         0.4737         0.9507         0.482         0.3798           NIFTY50         0.014997         -0.65103         -0.32431         -0.0049         -0.00294         -0.00015         2.37E-05           2.494774         -34.2151         -17.3006         -2.51055         -2.72736         -0.1104         0.017811		1.063393	-36.4686	-17.9123	1.29886	0.20577	0.169155	-0.59321	0.01689
1.184817     -35.2087     -17.4196     1.596251     1.352405     -1.85366     -1.06931       0.2362     0*     0*     0.1106     0.1764     0.0639     0.285       TCS     -3.20E-06     -0.633     -0.31846     0.001744     -8.78E-05     -0.00117     -0.00147       -0.03951     -34.3437     -17.287     0.716598     -0.06184     -0.70322     -0.87843       0.9685     0*     0*     0.4737     0.9507     0.482     0.3798       NIFTY50     0.014997     -0.65103     -0.32431     -0.0049     -0.00294     -0.00015     2.37E-05       2.494774     -34.2151     -17.3006     -2.51055     -2.72736     -0.1104     0.017811		0.2877	0*	0*	0.1941	0.837	0.8657	0.5531	0.9865
0.2362         0*         0*         0.1106         0.1764         0.0639         0.285           TCS         -3.20E-06         -0.633         -0.31846         0.001744         -8.78E-05         -0.00117         -0.00147           -0.03951         -34.3437         -17.287         0.716598         -0.06184         -0.70322         -0.87843           0.9685         0*         0*         0.4737         0.9507         0.482         0.3798           NIFTY50         0.014997         -0.65103         -0.32431         -0.0049         -0.00294         -0.00015         2.37E-05           2.494774         -34.2151         -17.3006         -2.51055         -2.72736         -0.1104         0.017811	TATASTEEL	0.002752	-0.6507	-0.32088	0.004721	0.002259	-0.00235	-0.00136	2.70E-05
TCS         -3.20E-06         -0.633         -0.31846         0.001744         -8.78E-05         -0.00117         -0.00147           -0.03951         -34.3437         -17.287         0.716598         -0.06184         -0.70322         -0.87843           0.9685         0*         0*         0.4737         0.9507         0.482         0.3798           NIFTY50         0.014997         -0.65103         -0.32431         -0.0049         -0.00294         -0.00015         2.37E-05           2.494774         -34.2151         -17.3006         -2.51055         -2.72736         -0.1104         0.017811		1.184817	-35.2087	-17.4196	1.596251	1.352405	-1.85366		0.041422
-0.03951     -34.3437     -17.287     0.716598     -0.06184     -0.70322     -0.87843       0.9685     0*     0*     0.4737     0.9507     0.482     0.3798       NIFTY50     0.014997     -0.65103     -0.32431     -0.0049     -0.00294     -0.00015     2.37E-05       2.494774     -34.2151     -17.3006     -2.51055     -2.72736     -0.1104     0.017811		0.2362	0*	0*	0.1106	0.1764	0.0639	0.285	0.967
0.9685     0*     0*     0.4737     0.9507     0.482     0.3798       NIFTY50     0.014997     -0.65103     -0.32431     -0.0049     -0.00294     -0.00015     2.37E-05       2.494774     -34.2151     -17.3006     -2.51055     -2.72736     -0.1104     0.017811	TCS	-3.20E-06	-0.633	-0.31846	0.001744	-8.78E-05	-0.00117	-0.00147	1.96E-06
NIFTY50 0.014997 -0.65103 -0.32431 -0.0049 -0.00294 -0.00015 2.37E-05 2.494774 -34.2151 -17.3006 -2.51055 -2.72736 -0.1104 0.017811		-0.03951	-34.3437		0.716598	-0.06184	-0.70322	-0.87843	0.003043
<b>2.494774</b> - <b>34.2151</b> - <b>17.3006</b> - <b>2.51055</b> - <b>2.72736</b> -0.1104 0.017811		0.9685	0*	~	0.4737				0.9976
	NIFTY50	0.014997	-0.65103	-0.32431	-0.0049	-0.00294	-0.00015	2.37E-05	5.43E-06
0,0127*   0*   0.0121*   0.0064*   0.9121   0.9858		2.494774	-34.2151		-2.51055		-0.1104	0.017811	0.014833
0.5050		0.0127*	0*	0*	0.0121*	0.0064*	0.9121	0.9858	0.9882

Source: Computed Value.

It is observed that in the short run dynamics results from the error correction co-integrating term C(1) indicates the long run relationship and C(2) to C(7) indicates the short run relationship among the variables. It is being reflected that there exist a short run relationship among the variables for the majority of stocks for two co-integrating term that is C (2) [DLNFCL (-1)] & C (3) [DLNFCL (-2)]. In all these cases where the co-integrating term is negative and significant it is indicated that the errors are going back to the equilibrium and the error is getting corrected by 62% for C(2) and in range of 29% to 36% for C(3) co-integrating term for all the stocks. But in cases of stocks like ACC(0.002658), BANKBARODA(0.004484), BPCL(0.014252), HCLTECH(0.002115), MAHINDRA(0.002459) & NIFTY(0.014997) co-integrating term C(1) [LNFCL(-1)] indicating the long run relationship is positive and significant concluding that the error is getting exploded more and not impending back to equilibrium. Furthermore the co-integrating term C (1) [LNFCL (-1)] the error is being corrected in HERO (-0.005757), INFOSYS (-0.01253) & ITC (-0.01178). The co-integrating term C (4) [DLNTV (-1)] & C (5) [DLNTV (-2)] the error is bought to equilibrium in HERO & NIFTY. The co-integrating term C (6) [DLNOI (-1)] is bought to equilibrium only in INFOSYS (-0.00482) & C (7) [DLNOI (-2)] is being corrected in HINDALCO (-0.0094) & INFOSYS (-0.00566).

#### **CONCLUSIONS**

There are various reasons why traders pay attention to future price, trading volume and open interest. A rise in future closing price, trading volume and open interest indicates that the market is strong and in upward trend. While a fall in price and a rise in trading volume and open interest indicate that the market is weak and downward trend. This study concluded that the relationship between future closing prices, trading volume and open interest for three futures contracts traded on Nifty Stock Index Futures are having a causal relationship since the p-value is less than 0.05 for that rejects the null hypothesis.

Granger Causality test was used to find out the causal relationship future closing price, trading volume and open interest. Overall it can be concluded that there are high chances of predicting Open Interest from Trading Volume or vice-versa due to significant results from the causality test for almost all the stocks is evident. The Johansens's Co-integration test was used to examine the long run relationship and it was found that the variables of the study that is future closing price, trading volume and open interest have a long run equilibrium relationship between them. But in short run there may be deviations from this equilibrium and to verify whether such equilibrium converges to long run equilibrium or not. Thus VECM can be used to generate the short run dynamics. It was being reflected that there exist a short run relationship among the variables for the majority of stocks.

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#### FUTURE TRACK OF STRATEGIC GROWTH OF M-COMMERCE MARKET IN GLOBAL SCENARIO

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#### **ABSTRACT**

Ecommerce in rapidly growing all over world. Now it is converting in M-Commerce view due to Mobile, i-Phone, Tab, i-Tab utilization by Consumers. In the emerging global economy, e-commerce and e-business have increasingly become a necessary component of business strategy and a strong catalyst for economic development. The integration of information and communications technology (ICT) in business has revolutionized relationships within organizations and those between and among organizations and individuals. Specifically, the use of ICT in business has enhanced productivity, encouraged greater customer participation, and enabled mass customization, besides reducing costs. it will be possible to create networks for producing and sharing information, transcending national and geographical boundaries. For example, economists are needed to understand the myriad of marketplace and financial considerations that shape the business environment. Social scientists are needed to understand the behaviors of consumers and organizational entities competing in the new economy. Computer scientists, information technology specialists are needed to understand the electronic and informational linkages among the infrastructures. Linguistics as a science is necessary to take into account the interdisciplinary nature of ecommerce and find appropriate solutions for rather complex terminology, which requires continuous updating and unambiguous identification of entities. Consequently, terminology of e-commerce must provide business transactions without ambiguity and uncertainty, which are not desired from legal, commercial consumer and information technology perspectives. Now a days Flipkart, SnapDeal, Car Dekho, Property india, I.R.C.T.C etc playing a big roll to Development of M-Commerce Market.

#### **KEYWORDS**

I.C.T, E2E, M-Commerce, C-Commerce, M-Commerce, virtual credit card, E-Payments Flipkart, SnapDeal.

#### 1. INTRODUCTION

he utilization of Smart devices like Mobile, i-Phone, Tab, i-Tab has change the Internet base market all over the world. The opening of access points on this global collection of local networks to commercial enterprises in the early 1990's spurned numerous innovations to produce immense increases in speed of transfer and quantity of storage of data capital. The means of competing in a free market economy adapted, and productivity increased at a much faster pace in the last decade than the century and a half since the dawn of the Industrial Revolution. The manipulation of digital capital shaping the progress of the Information Age must be secured in order for massive change in market space and transaction processes to become accepted and cost effective.

#### 2. THE BUSINESS OF M-COMMERCE

M-commerce can be simply defined as conducting business over a data network. In some logical way has access to the all-encompassing Internet. The major market researchers have weighed in with revenue projections to push the fervor higher to new extremes. Apple Group predicted in June 2012 that the year would end with an Internet retail revenue tally in North America up 80% of 2010's figure of \$286.8 billion and 210% from 2004. Taking into consideration M-commerce in the much larger Business-to-Business (B2B) realm, the forecast by e-commerce statistical firm m-marketer is for the current \$4563 billion global revenue of 2008 to approach \$5.1 trillion by 2012.

#### 3. EXECUTION OF MAJOR BUSINESS STRATEGIES BEFORE UTILIZATION OF M-COMMERCE

M-commerce is a Global based Intellectual business strategy-the web or other technologies has not changed the fundamental of business, but only expanded its scope.

**3.1.** It is noticed, that any MNC that wants to innovate business online must remember that the m-commerce strategy is to use and expose existing systems and processes, rather than build an isolated e-business system to do business online. Traditional rules of commerce still apply and should be used within e-commerce, which should be integrated with traditional business processes and must be seen as technology helping to make the business more effective, efficient and easy to

23.2. M-commerce is utilized in more secure and fast way with technological enhancement, and if used as a strategic tool; it can provide organizational benefits though gains in productivity, market share or even bottom-line profitability. At the same time, if M-commerce is not suitable for a company and yet it decides to maintain a presence, it can lead the firm to financial ruin. Therefore before entering the e-commerce marketplace, a firm must considered what business value it holds. M-Commerce is applying business market in Technological Form.

#### 4. EXECUTION OF MAJOR BUSINESS STRATEGIES AFTER UTILIZATION OF M-COMMERCE

A strategy is nothing without implementation. Implementation of M-commerce strategy is neither straightforward nor cheap, for example it comprises a complete rethinking of traditional modes of behavior.

- **4.1** M-Commerce require mainly to involve internal staff and external suppliers and customers rights from the conceptual stage, need to re-valuate a company's core competences and substantial investment in IT. Many of the advantages of e-commerce will be lost if it is implemented in isolation. The rise of the information economy and the challenges of the global market have secured a strategic place in all organizations for e-commerce. For the success of change, integration approach is desirable-there is little point in trying to change one element of an organization without changing the other supporting components.
- **4.2** M-Commerce is growing fast with integrate people within the organization such as the employees, recruit new skills and define new roles within the organization, involve all departments, communicate with stakeholders, marketing people and ensure the integration of e-commerce projects.
- **4.3** M-Commerce focus on Innovative ideas in virtual developing environment and attempting to ascertain which ones will suit the new market conditions. Management of human resources is again a critical success factor in the age of e-commerce. Further, the basics principles of business remain the same.
- **4.4** Ideas, plans and strategies are virtually involved in implementation of M-Commerce in Virtual technology based Global Market. Many of the advantages of ecommerce will be lost if it is implemented in isolation. For the successful implementation of e-commerce companies need to be continually reviewed throughout the system life cycle and to keep pace with the developments on all fronts. All the more, companies using e-commerce technology should create a culture of using e-commerce technologies.

#### 5. VARIOUS TYPES OF M-COMMERCE STRATEGIES

- 5.1 (B2B) Business-to-business: All of the participants in business-to business m-commerce are businesses or other organizations. Today most MC is B2B.
- 5.2 (B2C) Business-to-consumer: It includes retail transactions from business to individual shoppers. This MC is also called m-tailing
- **5.3 (B2B2C) Business-to-business-to-consumer:** enables some product or service to a client business. The client business maintains its own customers to whom the product or service is provided.

- **5.4 (C2B) Consumer-to-business:** This category involves individuals, who use the Internet to sell products or services to organizations, as well as individuals who seek sellers to bid on products or services they need.
- **5.5 (C2C) Consumer-to consumer:** In this category consumers sell directly to other consumers. The best examples are individuals who are selling residential property, cars and so on in online classified ads. It also includes advertisement of personal services over
- the Internet and the selling of knowledge and expertise online. A special type of C2C is where people exchange music, videos, software and other digitizable goods electronically using a peer-to-peer (P2P).
- **5.6 (L-Commerce as M-Commerce):** Operations of this category involve transactions conducted in a wireless environment. M-commerce transactions targeted to individuals in specific locations in specific times are called location commerce (I-commerce).
- **5.7 Intrabusiness based M-Commerce:** This category includes all internal organizational activities that involve the exchange of goods, services or information among various units and individuals in that organization. Intra-business EC is usually performed on intranets.
- **5.8 (B2E) Business-to-employees:** This category is a subset of intra-business activities in which the organization deliveries services, information, or products to individual employees.
- **5.9 (C-commerce) Collaborative commerce:** It is applied when individuals or groups communicate online. For example, business partners may jointly forecast market demand.
- **5.10 Non-business MC**: There are a lot of non-business institutions such as academic institutions, not-for-profit organizations, religious organizations, social organizations and government agencies using MC to reduce their expenses or to improve their general operations and customer service.
- **5.11 M-government: (G2C) Government to citizens and to others:** In e-government MC, a government entity buys or provides goods, services or information to businesses or individual citizens.

#### 6. LATEST TECHNOLOGIES IMPLEMENTED IN THE FIELD OF PAYMENTS ONLINE PAYMENT CARDS

There are also a lot of new terms in the field of payments online. The overwhelming majority of Web payments (B2C payments) are made with payment cards (usually credit cards,) not with digital cash.

#### **6.1 VIRTUAL CREDIT CARD**

One innovation in online credit cards is a virtual credit card. It is an e-payment system in which a credit card issuer gives out a special transaction number that can be used online in place of regular credit card numbers.

#### 6.2 PURCHASING CARDS

Purchasing cards are used for B2B. They are special-purpose payment cards issued company's employees to be used solely for purchasing non-strategic materials and services up to a present dollar limit.

#### **6.3 SMART CARDS**

Smart cards look like plastic payment card but they are distinguished by the presence of an embedded microchip that enables predefined operations or the addition, deletion or manipulation of information on the card. Smart cards can be categorized by the way in which data are downloaded and read from the card. There are two major types of smart cards.

#### 6.4.1 CONTACT CARD

The first type is a contact card. That is a smart card containing a small gold plate on the face that when inserted in a smart-card reader makes contact and so passes data to and from the embedded microchip.

#### 6.4.2 CONTACT LESS (PROXIMITY) CARD

The second type is the contact less (proximity) card, which is fact a smart card with an embedded antenna, by means of which data and applications are passed to and from a card reader unit or other device.

#### 6.5 ELECTRONIC PAYMENTS (E-PAYMENTS)

Electronic payments (e-payments) are another payment option. In fact it is a transfer of payment from one person or party to another person or party over a network without face to-face-interaction. They are used as alternatives to credit cards when small amounts are in question and they are grouped into four categories:

- E-cash and micro payments,
- stored value cards.
- E-loyalty and rewards programs, and
- Person-to-person (P2P) payments.
- 6.6 E-cash is the digital equivalent of paper currency and coins, which enables secure and anonymous purchase of low-priced items.
- 6.7 Micro payments are small payments, usually under \$10.

#### **6.8 STORED-VALUE CARDS**

Stored-value cards involve visa cash (sponsored by Visa) and mondex (sponsored by Mondex, a subsidiary of MasterCard), which are designed to handle small purchases or micro payments.

#### 6.9 E-LOYALTY AND REWARDS PROGRAMS

E-loyalty and rewards programs are used to generate repeat business. The currency used by loyalty programs is electronic script. It is a form of electronic money, issued by a third party as a part of loyalty program. Consumers at participating stores can use it.

#### 6.10 PERSON-TO-PERSON PAYMENTS

Person-to-person payments involve one of the newest and fastest-growing e-payment schemes, enabling the transfer of funds between two individuals.

#### 7. SUMMARY

M-commerce is further developed from enhanced form in E-Commerce having wide scope all over world usually associated with buying and selling over the Internet, or conducting any transaction involving the transfer of ownership or rights to use goods or services through a computer-mediated network. Though popular, this definition is not comprehensive enough to capture recent developments in this new and revolutionary business phenomenon.

#### 8. CONCLUSION

Now a days Global Economy is growing in M-Commerce segment such as the provision of enabling hardware and software and network equipment for Webbased/online retail and shopping malls (or "e-malls"). It is made up of three major segments:

Physical (ICT) infrastructure, business infrastructure, and commerce various applications of e-commerce are continually affecting trends and prospects for business over the Internet, including e-banking, e-tailing and online publishing/online retailing.

A more developed and mature e-banking environment plays an important role in ecommerce by encouraging a shift from traditional modes of payment (i.e., cash, checks or any form of paper-based legal tender) to electronic alternatives (such as e-payment systems), thereby closing the e-commerce loop.

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#### AN ANALYSIS OF CSR SPENDING IN INDIAN COMPANIES

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#### **ABSTRACT**

The term "corporate social responsibility" became popular in the 1960s and has remained a term used indiscriminately by many to cover legal and moral responsibility more narrowly construed. Actually, CSR refers to a business practice that involves participating in initiatives that benefit society. A responsible corporate recognizes that its activities have wider impact on the society in which it operates. Therefore, it takes account of the economic, social, environmental & human rights impact of its activities on all the stakeholders. In this paper, top BSE listed companies are selected for the purpose of study. Their prescribed CSR spend have been compared with their actual CSR spends FY 2015-16. The study reveals that there is a gradual improvement in corporate's CSR spends. The paper also focus on the areas of priority of CSR spending by Indian Companies

#### **KEYWORDS**

BSE, Corporate social responsibility, prescribed CSR, Actual CSR, Indian companies.

#### INTRODUCTION

orporate social responsibility (CSR) is a business approach that contributes to sustainable development by delivering economic, social and environmental benefits for all stakeholders.

CSR is a concept with many definitions and practices. The way it is understood and implemented differs greatly for each company and country. Moreover, CSR is a very broad concept that addresses many and various topics such as human rights, corporate governance, health and safety, environmental effects, working conditions and contribution to economic development. Whatever the definition is, the purpose of CSR is to drive change towards sustainability.

India is a country of myriad contradictions. On the one hand, it has grown to be one of the largest economies in the world, and an increasingly important player in the emerging global order, on the other hand, it is still home to the largest number of people living in absolute poverty (even if the proportion of poor people has decreased) and the largest number of undernourished children. What emerges is a picture of uneven distribution of the benefits of growth which many believe, is the root cause of social unrest.

Companies too have been the target of those perturbed by this uneven development and as a result, their contributions to society are under severe scrutiny. With increasing awareness of this gap between the haves and the have-nots, this scrutiny will only increase over time and societal expectations will be on the rise. Many companies have been quick to sense this development, and have responded proactively while others have done so only when pushed.

Governments as well as regulators have responded to this unrest and the National Voluntary Guidelines for Social, Environmental and Economic Responsibilities of Business or the NVGs (accompanied by the Business Responsibility Reports mandated by the SEBI for the top 100 companies) and the CSR clause within the Companies Act, 2013 are two such instances of the steps taken.

#### **OBJECTIVES OF THE STUDY**

The research paper is mainly focuses on the fallowing objectives:

- To study the CSR spending by Indian companies.
- 2. To study the area of priority of CSR spending by Indian Companies.

#### **METHODOLOGY**

The methodology in this research paper is based on descriptive research design, in which secondary data or source of information is used for study. Top BSE listed companies are selected for study and data has been collected from various relevant websites, books, journals and reports etc.

#### **CORPORATE SOCIAL RESPONSIBILITY IN INDIA**

All the Business houses and corporate have been taking up social welfare activities from time to time. While CSR is relevant in business for all societies, it is particularly significant for developing countries like India, where limited resources for meeting the ever growing aspirations and diversity of a pluralistic society, make the process of sustainable development more challenging. CSR interventions-based on commitment, mobilization of employees-voluntarism, innovative approaches, appropriate technology and continuing partnership-have been making lasting differences in the life of the disadvantaged. Further, synergy of corporate action with the government and the civil society are making the CSR interventions more effective and facilitating the corporate carrying on business in the society.

#### **CSR ACTIVITIES IN INDIA AS PER COMPANIES ACT, 2013**

Companies Act 2013 (Companies Act) has introduced several new provisions which change the face of Indian corporate business. One of such new provisions is Corporate Social Responsibility (CSR). The concept of CSR rests on the ideology of give and take. Companies take resources in the form of raw materials, human resources etc from the society. By performing the task of CSR activities, the companies are giving something back to the society.

Ministry of Corporate Affairs has notified Section 135 and Schedule VII of the Companies Act as well as the provisions of the Companies (Corporate Social Responsibility Policy) Rules, 2014 (CRS Rules) which has come into effect from 1 April 2014.

**Applicability:** Section 135 of the Companies Act provides the threshold limit for applicability of the CSR to a Company i.e. (a) net worth of the company to be Rs 500 crore or more; (b) turnover of the company to be Rs 1000 crore or more; (c) net profit of the company to be Rs 5 crore or more. Further as per the CSR Rules, the provisions of CSR are not only applicable to Indian companies, but also applicable to branch and project offices of a foreign company in India.

CSR Committee and Policy: Every qualifying company requires spending of at least 2% of its average net profit for the immediately preceding 3 financial years on CSR activities. Further, the qualifying company will be required to constitute a committee (CSR Committee) of the Board of Directors (Board) consisting of 3 or more directors. The CSR Committee shall formulate and recommend to the Board, a policy which shall indicate the activities to be undertaken (CSR Policy); recommend the amount of expenditure to be incurred on the activities referred and monitor the CSR Policy of the company. The Board shall take into account the recommendations made by the CSR Committee and approve the CSR Policy of the company.

Definition of the term CSR: The term CSR has been defined under the CSR Rules which includes but is not limited to:

Projects or programs relating to activities specified in the Schedule; or

Projects or programs relating to activities undertaken by the Board in pursuance of recommendations of the CSR Committee as per the declared CSR policy subject to the condition that such policy covers subjects enumerated in the Schedule.

This definition of CSR assumes significance as it allows companies to engage in projects or programs relating to activities enlisted under the Schedule. Flexibility is also permitted to the companies by allowing them to choose their preferred CSR engagements that are in conformity with the CSR policy.

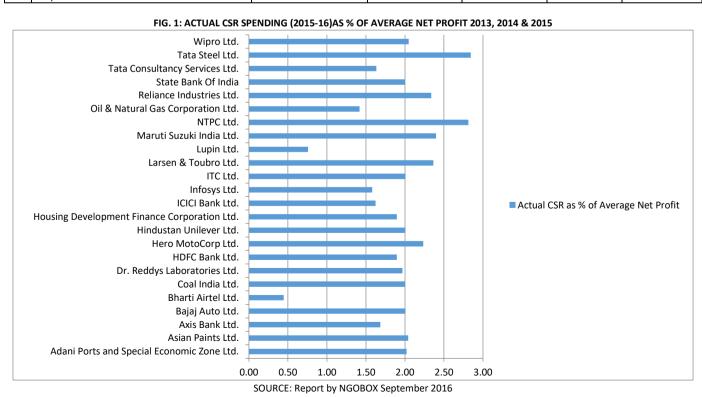
Activities under CSR: The activities that can be done by the company to achieve its CSR obligations include eradicating extreme hunger and poverty, promotion of education, promoting gender equality and empowering women, reducing child mortality and improving maternal health, combating human immunodeficiency virus, acquired, immune deficiency syndrome, malaria and other diseases, ensuring environmental sustainability, employment enhancing vocational skills, social business projects, contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women and such other matters as may be prescribed.

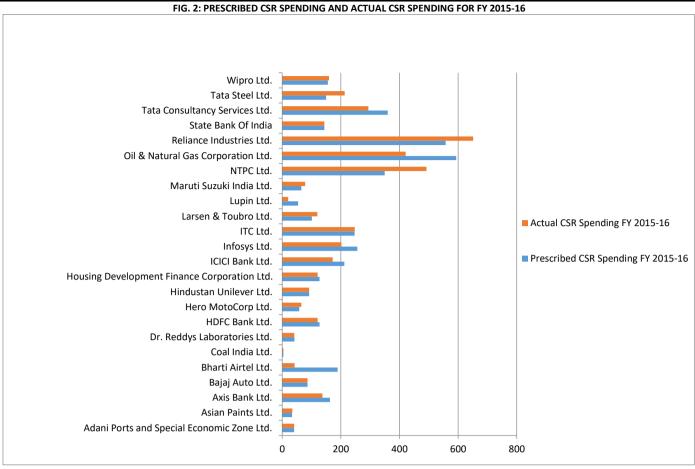
Local Area: Under the Companies Act, preference should be given to local areas and the areas where the company operates. Company may also choose to associate with 2 or more companies for fulfilling the CSR activities provided that they are able to report individually. The CSR Committee shall also prepare the CSR Policy in which it includes the projects and programmes which is to be undertaken, prepare a list of projects and programmes which a company plans to undertake during the implementation year and also focus on integrating business models with social and environmental priorities and process in order to create share value.

The company can also make the annual report of CSR activities in which they mention the average net profit for the 3 financial years and also prescribed CSR expenditure but if the company is unable to spend the minimum required expenditure the company has to give the reasons in the Board Report for non-compliance so that there are no penal provisions are attracted by it.

TABLE 1: CSR SPEND BY INDIAN COMPANIES (In INR Crores)

		Actual CSR spending	Prescribed CSR	Actual CSR		Prescribed CSR
Sr.		(2015-16)as % of Aver-	Spending FY 2015-	Spending FY	Actual CSR	Spending FY
N.	Indian Companies	age Net Profit	16	2015-16	spending in %	2016-17*
1	Adani Ports and Special Economic Zone Ltd.	2.02%	40.40	40.81	101.01%	48.55
2	Asian Paints Ltd.	2.04%	33.75	34.44	102.04%	34.36
3	Axis Bank Ltd.	1.69%	163.03	137.41	84.29%	218.66
4	Bajaj Auto Ltd.	2.01%	86.46	86.72	100.30%	94.01
5	Bharti Airtel Ltd.	0.45%	189	42.15	22.30%	227.15
6	Coal India Ltd.	2.00%	4.18	4.18	100.00%	303.19
7	Dr. Reddys Laboratories Ltd.	1.97%	41.88	41.2	98.38%	40.63
8	HDFC Bank Ltd.	1.90%	127.28	120.72	94.85%	311.59
9	Hero MotoCorp Ltd.	2.23%	58.18	65	111.72%	70.6
10	Hindustan Unilever Ltd.	2.00%	91.94	92.12	100.20%	113.91
11	Housing Development Finance Corporation Ltd.	1.90%	127.28	120.72	94.85%	311.59
12	ICICI Bank Ltd.	1.62%	212	172	81.13%	279.89
13	Infosys Ltd.	1.58%	256.01	202.3	79.02%	343.29
14	ITC Ltd.	2.01%	246.76	247.5	100.30%	273.75
15	Larsen & Toubro Ltd.	2.36%	101.46	119.9	118.17%	137.72
16	Lupin Ltd.	0.76%	54.15	20.51	37.88%	68.38
17	Maruti Suzuki India Ltd.	2.40%	65.4	78.46	119.97%	00.41
18	NTPC Ltd.	2.81%	349.65	491.8	140.65%	229.98
19	Oil & Natural Gas Corporation Ltd.	1.42%	593.7	421	70.91%	549.18
20	Reliance Industries Ltd.	2.34%	557.78	651.57	116.81%	619.91
21	State Bank Of India	2.00%	143.92	143.92	100.00%	328.41
22	Tata Consultancy Services Ltd.	1.63%	360	294	81.67%	514.74
23	Tata Steel Ltd.	2.84%	150	213.24	142.16%	162.33
24	Wipro Ltd.	2.05%	156	159.8	102.44%	204.31





SOURCE: Report by NGOBOX September 2016

#### INTERPRETATION

The following BSE listed companies together spent INR 4001.47 Cr in CSR while their prescribed CSR was INR 4210.21 Cr. This is almost 5% less than what the Section 135 asks for.

Out of 24 companies only 14 companies spent either equal or more than prescribed CSR. And 10 Companies remain below the prescribed CSR spend, which means these companies need more time to raise their CSR to the standard of 2% of their last three year's profit. Though there is substantial improvement in the actual CSR spent to prescribe CSR in FY 2015-16. As per the NGOBOX report, while it was 79% in FY 2014-15, it has increased to 92% in last financial year.

#### THEMATIC PRIORITIES IN CSR

Schedule VII-Theme-wise number of companies

FIG. 3: THEMATIC PRIORITIES IN CSR Series1 Poverty Alleviation, Healthcare & WASH 219 **Education & Skills** Women Empowerment and inclusive development Protection of National Heritage, Art & Culture Benefits to Armed Forces veterans, war windows 12 **Environment Sustainability** Technology Incubation within academic institutions Rural Sports, Paralympics and Olympic sports PM Relief Fund and Others **Rural Development Projects Urban Slum Development** 5

SOURCE: Report by NGOBOX September 2016

TABLE 2: THEME WISE	MILIMADED	OF DROJECTS
I ADLE Z: I MEIVIE WISE	NUIVIDER	OF PROJECTS

THEMATIC AREA	NO. OF PROJECTS	INR CR.
Poverty Alleviation, Healthcare and WASH	876	2142
Education and Skills	1189	2073
Women Empowerment and Inclusive Development	171	167
Protection of National Heritage, art and culture	87	83
Benefits to armed forces veterans, war widows	16	7
Environmental sustainability	345	559
Technology incubators within academic institutions	15	12
Rural sports, Paralympics and Olympic sports	88	159
PM Relief Fund and Others	44	162
Rural Development projects	206	771
Urban slum development	10	7
Admin Expenses	-	437

SOURCE: Report by NGOBOX September 2016

#### **CONCLUSION**

The following analysis states that the companies have become more serious in their CSR spend in comparison to last years. The 24 companies analyzed in this paper is have spent INR 4,001.47 crores in the year 2015-16 while their prescribed budget was INR 4,210.21 crore, which means the companies only spend 1.90% of their net profit of last three years out of 2%. This indicates a good improvement from the previous years. Companies like Tata steel, Larsen and Toubro ltd, Asian paints and coal India ltd. have spent more than the prescribed for the welfare of society. On the other hand, companies like Axis bank, HDFC Ltd, Dr. Reddy's Laboratory, and ICICI bank have spent less than the prescribed budget. But the overall study indicates that companies are ready to raise the bar for CSR projects. Education (including skilling) and Healthcare (including WASH) themes have been favorites of companies for implementing CSR projects. Rural sports promotion is the new area which is gradually becoming popular in CSR projects.

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#### REMITTANCES AND HOUSEHOLD SAVINGS AND INVESTMENT

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#### **ABSTRACT**

This paper made an attempt to study the impact of inward remittances on household savings and investment. The effects of remittances on the receiving country can be dramatic on both a macro and microeconomic level, which creates serious challenges for governments, communities and families. The factors incorporated in the study are; basic consumption, education, health, entertainment, savings pattern, building a new house and repayment of loan expenses. The paper highlights that remittance receiving households experience a significant effect on the household's consumption, education and health expenses as well as savings, which leads to improving the wellbeing of the family.

#### **KEYWORDS**

remittances, migration, migrant, household, savings, investment.

#### 1.0 INTRODUCTION

he objective of this paper is to highlight the different aspects of migration. It gives a far reaching outline of the effect of remittance on spending conduct by taking a gander at regular classes like nourishment, non-sustenance and instruction, and the sparing conduct of the remittance accepting households. It highlights the different ways in which remittances are used by the households. Also this paper studies the impact of inward remittances on household savings and investments. It studies the impact of remittances on the development of the financial sector, trade, labour market etc.

#### 1.1 OBJECTIVES OF THE STUDY

The principle or broad objectives of undertaking this research were

- 1. To study the different facets of Migration
- 2. To identify the impact of Inward Remittances on Household savings and Investment

#### 1.2 RATIONALE OF THE STUDY

Foreign remittances are favouring for a developing nation like India where a greater part of individuals are unemployed and poor. Remittances add to the GDP of the nation specifically as the measure of remittances got is expanding generously year after year. They have both large scale and micro level impacts on the economy of the nation. To the extent the large scale level impact is concerned it is watched that remittances influence nation's general savings, investments, utilization, neediness mitigation, foreign exchange, and so on and they influence the nation's full scale economic circumstance. Then again, foreign remittances influence the migrant's family's income, utilization, social insurance, instruction, investment in organizations, resources era. Be that as it may, different written works on the impacts of foreign remittances on households propose that remittances diminish destitution from the migrant's families by expanding their acquiring, enhancing their ways of life. Thus, one might say that remittances have positive socio-economic impact.

#### 1.3 MIGRATION

Migration is defined broadly as a permanent or semi-permanent change of residence. Migration encompasses enormous economic and social diversity. Migrants are concentrated in different types of work in rural and urban areas.

The ILO Convention on Migration for Employment 1949, (No. 97) in its Article 11, states: "migrant for employment means a person who migrates from one country to another with a view to being employed otherwise than on his own account and includes any person regularly admitted as a migrant for employment."

The 1990 UN Convention on the Protection of all Migrant Workers and their Families defines migrant as: "A person, who is to be engaged, is engaged or has been engaged in remunerated activity in a State of which he or she is not a national".

Migration flows are characterized by a basic distinction between skilled labour (professionals, technicians, etc.) and unskilled labour. This distinction is closely connected because the two groups interact with the labour market differently and receive differential treatment in host countries. Skilled workers face few problems overseas given their qualifications and bargaining power. Most protection issues relate to unskilled migrant workers. Some writers have used terms such as 'high level 'manpower and 'low level' manpower to refer to the two categories (Stahl, 1993).

#### 1.3.1 HISTORY

Information on individual migrants gathered from micro overviews demonstrates a huge bunching of migrants in the 16–40 year age gathering (Conell et al, 1976). This is considerably more the case with poorer semi-lasting or impermanent work migrants (Srivastava 1999, and pending). Concerning instruction, migration rates are high both among the exceedingly taught and the minimum taught, and among occasional migrants there is a high dominance of illiterate individuals (Connell et al, 1976; Rogaly et al, 2001; Haberfeld et al, 1999).

The different costs involved with migration include the earnings foregone while travelling, searching for, and learning a new job. Part of these foregone earnings will be a function of the distance of migration. In addition the time required to find a new job is presumably affected by the level of unemployment. Since people are often genuinely reluctant to leave familiar surroundings, family, and friends, migration involves a psychic cost (Sjaastad, 1962).

Where migration is basically automatic, it looks bad to utilize voluntaristic models to clarify the marvel. In Dhule locale (Maharashtra) sugarcane development prompts appeal for work, however landowners enrol workers from different regions for reaping as they can have powerful control over the work. Nearby workers are consequently compelled to move with their family units to South Gujarat (Teerink 1995). In Kerala, trawler-angling has drained marine assets. With unemployment in different enterprises like cashew and elastic, this has prompted substantial scale outmigration of young ladies (Sardamoni, 1995).

Managers frequently lean toward transient workers to nearby workers, as they are less expensive and don't create social associations with the place of goal. Ladies migrants charge the most exceedingly bad; they are for the most part paid not as much as male migrants (Pandey, 1998). In the development business they are seen as associates to their husbands, and kept to untalented jobs. The ensuing division is utilized as an avocation for low installments. Ladies likewise confront more noteworthy weakness (Viajanyanta, 1998). In the fish preparing industry, they are gravely misused regarding working condition, wages, living condition and now and again sexually badgering (Sarodamoni, 1995). In the general population part, wage structures additionally fluctuate from venture to extend. As most contracts are given to private firms, they spurn work laws and the lowest pay permitted by law enactment. Low wages of occasional specialists are the aftereffect of insecurity of demand, portioned work markets, unregulated nature and strength of work contractual workers and helplessness of laborers (Study Group on Migrant Labor, 1990).

#### 1.3.2 CAUSES OF MIGRATION

Given the assorted qualities in the way of migration in India, the causes will undoubtedly differ. Migration is impacted both by the example of advancement (NCRL, 1991), and the social structure (Mosse et al, 2002). The National Commission on Rural Labor, concentrating on regular migration, inferred that uneven improvement was the fundamental driver of occasional migration. Alongside bury provincial uniqueness, divergence between various socioeconomic classes and the improvement policy embraced since freedom has accelerated the procedure of occasional migration. In tribal areas, interruption of pariahs, the example of settlement, dislodging and deforestation, additionally have assumed a critical part.

Variables, for example, age, training level, riches, productivity and openings for work impact the interest of people and households in migration, however so do social states of mind and supporting informal communities (Haberfeld et al, 1999; Rogaly et al, 2001; Mosse et al, 2002).

The essential factors which inspire individuals to move can be arranged into five classifications. They are economic factors, statistic factors, socio-cultural factors, political factors and miscellaneous factors.

#### 1.3.2.1 Fconomic Factors

The majority of the studies demonstrate that migration is basically roused by economic factors. This is the most obvious reason given i.e. the pull from higher wages in receiving countries. In this sense, high levels of unemployment and poverty in source countries act as a push factor in the decision to emigrate.

In developing countries, low agricultural wage, agricultural unemployment and underemployment are viewed as fundamental factors pushing the migrants towards created range with more noteworthy job openings. Along these lines, all studies agree that the vast majority of migrants have moved looking for better economic open doors. The fundamental economic factors which persuade migration might be additionally named 'Push Factors' and 'Pull Factors'. The push factors will be factors that propel a man, because of various reasons, to leave that place and go to some other place. The normal push factors are low efficiency, unemployment and underdevelopment, poor economic conditions, absence of chances for headway, weariness of regular assets and common cataclysms. Presentation of capital serious strategies for creation into agricultural segment, and motorization of specific procedures lessen work prerequisite in rural ranges. The non-accessibility of option wellsprings of pay in rural zone is likewise vital factor for migration. The Pull Factors will be factors which draw in the migrants to a range. Open doors for better employment, higher wages, offices, better working conditions and attractive pleasantries are pull factors of a territory.

#### 1.3.2.2 Demographic Factor

Demographic changes in fast growing economies have created significant labour shortages. In general, labour-sending countries are characterized by high rates of population and labour force growth as in the case of Pakistan, Bangladesh and the Philippines exceeding two per cent per annum into the twenty first century. The distinctions in the population development rates of the diverse areas of a country have been observed to be a determinant in the internal migration. Richness and the common increment in population are by and large higher in rural regions which float the population towards the city.

#### 1.3.2.3 Socio-cultural Factors

Social and cultural factors likewise a critical part in migration. Some of the time family conflicts, the mission for independence, likewise cause migration particularly, of those in the more youthful generation. Enhanced correspondence offices, for example, transportation, effect of television, great system correspondence, the cinema, the urban oriented education and resultant change in states of mind and values likewise advance migration.

#### 1.3.2.4 Political Factors

Sometimes even political factors encourage or discourage migration from district to another. Consequently, the political foundation, states of mind and individual perspective of the general population affected on the migration of individuals.

#### 1.3.2.5 Miscellaneous Factors

Other factors, for example, the nearness of relatives and friends in urban zones, lured by friends and social network, desire to get education which is accessible just in urban zones are factors in charge of migration. Closeness of cultural contacts, cultural diversity, awesome imperativeness, and singular states of mind are likewise connected with migration.

#### 1.3.3 IMPACT OF MIGRATION

On migrants and their family's poorer migrant specialists, packed into the lower finishes of the work market, have couple of privileges versus their bosses or the general population experts in the goal zones. They have small individual resources and endure a scope of hardships in the goal territories. In the source regions, migration has both negative and positive outcomes for migrants and their families. Living conditions: migrant workers, regardless of whether farming or non-agrarian, live in regrettable conditions. There is no arrangement of safe drinking water or sterile sanitation. Most live in open spaces or temporary safe houses notwithstanding the Contract Labor Act which stipulates that the contractual worker or manager ought to give appropriate convenience (NCRL, 1991; GVT, 2002; Rani and Shylendra, 2001). Aside from regular specialists, laborers who migrate to the urban areas for occupation live in parks and asphalts. Ghetto inhabitants, who are for the most part migrants, remain in despicable conditions, with deficient water and awful seepage.

Nourishment costs more for migrant specialists who are not ready to acquire transitory apportion cards. Wellbeing and Education: workers working in unforgiving conditions and living in unhygienic conditions experience the ill effects of genuine word related medical issues and are helpless against sickness. Those working in quarries, development locales and mines experience the ill effects of different wellbeing dangers, generally lung maladies.

As the business does not take after wellbeing measures, mischances are very successive. Migrants can't get to different wellbeing and family mind programs because of their impermanent status. Free general medicinal services offices and projects are not available to them. For ladies specialists, there is no arrangement of maternity leave, driving them to resume work very quickly after labour. Labourers, especially those working in tile manufacturing plants and block ovens experience the ill effects of word related wellbeing dangers, for example, body hurt, sunstroke and skin disturbance (NCRL, 1991).

The costs are offset against the benefits for each of the societies to establish the true impact of migration for each of the societies. The net effect of migration may differ for the receiving and sending societies. If for instance, the social & economic costs to the sending society are greater than the social & economic benefits then the effect of migration are said to be negative for the sending society. The same sort of calculation can be done to establish the net effect of migration for the receiving society often when these calculations are done migration that has a positive impact for one society will have a negative impact on the other. By separating and understanding the various types of impacts which result from migration it impossible to assess the importance of migration in the short, medium, & longer terms for the societies which migrants leave and those in which they settle.

#### **DEMOGRAPHIC CONSEQUENCES**

Migration may have profound effects on the size, structure and growth patterns of populations. Migration has effects on both populations of the patterns of populations. Migration has effects on both populations of the places that people leave & on the populations of those in which they settle. These effects vary with different types of migration & length of migrants stay in places. The absence of large number of either men or women may have a limited impact on the sending society in short term but if they are absent for longer periods time their absence will have significant effects on population growth rates in the medium and longer terms.

#### SOCIAL CONSEQUENCES

Migration also has effects on the cultures of both the places that migrants leave and those in which they re-settle. These effects vary with different types of migration, the skills of the migrants & the lengths of time involved.

#### POLITICAL CONSEQUENCES

Migration can have an impact on politics in both the places which people live and those to which they move. Governments will have to make policies to attract migrants, to persuade migrants to return, or to limit migration to ensure that they have access to skills that they need. These political effects vary with different types of migration. Migration plays a major role in the complex process of change in the international political order we. It impacts states and regions, their societies, economies, and polities (Stephen Castles, 2006).

#### **ECONOMIC CONSEQUENCES**

Migration can have significant effect on economics. Migration has impact on the economies that people live and those in which they re-settle. These effects vary with different types of migration, the skills of the migration and length of time involved.

#### 1.3.4 FLOW OF REMITTANCE

The Reserve Bank of India (RBI) reports that specialists' remittances to India achieved US\$46.4 billion for fiscal year (FY) 2008/09 up from US\$2.1 billion in FY 1990/91. India, in fact, has overwhelmed Mexico to wind up noticeably the world's preeminent remittance goal. Remittances, which have constituted around 3 to 4 percent of India's gross domestic product (GDP) since 1999–2000, have given impressive support to India's adjust of instalments. Remittances additionally have outperformed both foreign guide flows and FDI flows to India. An expansive number of Indian households (around 4.5 percent) get remittances. As per the RBI, the greater part of these remittances are used for family support (that is, to meet the prerequisites of transient's families with respect to nourishment, instruction, wellbeing, and different needs) while the rest are either stored in bank accounts (20 percent) or put resources into land, property, and securities (7 percent).

As per 'Migration and Development Brief' released by World Bank India is world's largest remittance recipient for the year 2016. Remittance inflows to India amounted to \$62.7 billion in 2016. However, there has been a drop of 8.9% as compared to \$68.9 billion received in 2015.

Gulf countries like Kuwait and Saudi Arabia have huge clusters of migrant Indian population who regularly remit money to India. Decline in remittances to India can be attributed to drop in oil prices and fiscal tightening in gulf countries.

In 2016, remittances accounted for 9% of India's Gross Domestic Product(GDP). State wise, remittances to Kerala accounted for 36.3% of the net state domestic product.

Notwithstanding the upgrades in the information accumulation strategies on remittances of late years, a few variables represent this amazing increment in specialists' remittances in the course of recent years. To start with, in the 1990s, migration of talented Indian work to North America expanded essentially, especially among information technology (IT) labourers. Second, this expansion in immigrant work matched with better motivating forces to send and contribute cash, loose directions and controls, more adaptable exchange rates, and slow opening of the capital record after 1993. At last, NRIs have reacted well to a few appealing store plots in India.

#### 1.4 HOUSEHOLD SAVINGS

With regards to the South Pacific the idea that non-productive types of consumption are "unproductive" or "wasteful" uses has been genuinely tested. Shankman contends that in Western Samoa, lodging changes, alongside little scale extravagance utilization and church gifts speak to a "security investment".

Another study calls attention to that Tongan householders themselves once in a while see their utilization of remittances as unproductive or as cases of obvious utilization, in light of the fact that "nothing is more productive than to have the capacity to accommodate their day by day subsistence and to have the economic energy to satisfy their family and social obligations". All things considered, there has been little endeavour in past work on the South Pacific to gauge the degree to which remittances add to savings and investment specifically, or by implication by increasing the pool of loan able assets for investment in income-creating resources, physical or financial, by others in the private or state sectors.

#### 1.4.1 END USE OF REMITTANCES

Remittance Income (RI): Remittance is the income for the households with transient part. On the off chance that the household gets any blessings or cash from alternate people with the exception of their own household part from abroad, it is excluded as remittance income since it is extremely hard to review the little endowments got and the recurrence of these receipts are never quantifiable.

Empowered livelihood (EL): Livelihood implies a man's capacity to procure a living. Be that as it may, it is about far beyond just income, it is about everything that has an effect on a man's life – training, wellbeing and access to sustenance all assumes an indispensable part. The employment strengthening implies the move of energy from a condition of uncalled for to one that is simply. It is the arrangement of chance to the denied poor of the general public for settling on their choices with reference to their household matters that incorporate essential utilization, training, wellbeing, diversion costs and so on. This implies for poor households the term business change reflects expanding household's confidence that empowers them to perceive and enhance their financial prosperity in the general public. Food and Non Food Expenses (FE): Food costs are ordinarily those expenses and costs related with the utilization cost brought about in buying nourishment things. The non-nourishment consumption totals the costs on fills, transportation, and use on utilities, individual care things, other regular things and non-visit things. Uses on marriage, endowments, burial service and other social and religious capacities are comes under the Non Food Expenses.

**Education:** Education costs are educational cost and certain related costs required for enrolment or participation at a qualified instructive establishment. The training costs incorporates month to month charges, confirmation charges, uniform, course readings and supplies, transportation, private educational cost and different costs related with instruction.

**Health:** Any cost caused in the counteractive action or treatment of damage or illness. Wellbeing costs incorporate wellbeing and dental protection premiums, specialist and healing facility visits, co-pays, remedy and over-the-counter medications, glasses and contacts, braces and wheelchairs, to give some examples. Medicinal costs that are not repaid are deductible inside specific breaking points.

**Entertainment:** Costs brought about in socialization related straightforwardly with a business reason, for example, acquiring a request or favorable trade terms. Remittances and household consumption examples of chose families in Kathmandu valley. Such costs are for the most part required to be bolstered by narrative proof to qualify as findings against income.

Saving Pattern: The sum left over when the cost of a man's buyer use is subtracted from the measure of extra cash that he or she procures in a given timeframe. Building a New House: The cost happened while recreating a prebuilt house, its support costs, shading costs, and so forth or cost acquired in making another house falls in this classification. It incorporates every one of the expenses acquired while making another house or redesigning an old one.

**Repayment of Loan:** The demonstration of paying back cash already obtained from a moneylender. Reimbursement generally appears as intermittent installments that ordinarily incorporate part main in addition to enthusiasm for every installment. The other normal technique for reimbursement is a singular amount with enthusiasm at development.

#### 1.4.2 TYPE AND SIZE OF FAMILY

Family is defined as members of a social unit residing in the same compound and eating from the same kitchen. In this study the migrant worker has also been accounted for in the family structure although he resides overseas. Three types of family structures have been identified: extended, joint and nuclear. Nuclear family is comprised of migrant worker, his wife and children. In case of unmarried migrant workers it will include his parents, brothers and sisters; joint family includes migrant worker, his parents, brothers and sisters, and if married, his wife/children; whereas extended family includes migrant worker's own immediate family, and parents' brothers and sisters and their families.

#### 1.4.3 MIGRATION EXPERIENCE OF FAMILY MEMBERS AND RELATIVES

The presence of remittance is complicatedly related with the connections of work migrants with their left-behind relatives. On one hand, the household's income level is to a great extent upgraded by the remittance and the expanded income level would enhance the family connections. On another hand, since the first provider is far from home to work abroad, other relatives need to take up his obligations and change the family parts in light of the family head's nonattendance. Alongside the changing family parts, clashes among relatives may turn out to be more regular. Clashes inside the household would diminish the nature of family connections.

#### 1.5 INVESTMENT

Migrants and their families' financial activities not only impact national economies and financial systems, they also demonstrate an active capacity to build assets in relation to remittances through money management and formal financial tools. The earnings received by households from migrants abroad allow them to stay out of poverty and contribute significantly to building their assets because the effect of remittances is to increase disposable income. Moreover, in most countries, remittance recipient families exhibit a positive relationship between remittance reception and financial activities. The more transfers that are received, the higher the number of families with bank accounts, savings, and other financial obligations. Moreover, when the supply of financial services meets the demand, the local economy is able to better absorb these flows. A relatively good initial economic situation allows for more opportunities to migrants and their families to use remittances for savings and investment. Moreover, it is this situation that allows resources mobilization to finance migration without contracting debt. This in turn

allows households and migrants not to have future debt repayment, leaving more opportunities to save or invest future remittances. However, when migration is financed by debt, remittances will be used for several years to repay debt and meeting daily consumption needs. Thus, in the short run financing migration by debt could motives for savings and investment (Baldé, Y. (2011).

Remittance-receiving communities have thus significant potential to leverage their income for asset building. Typically, people build savings informally over time as a result of substantial increases in their disposable income from remittance transfers. This is primarily the case with remittance transfers from developed to developing countries; however, the trend has also been observed with South-South transfers, particularly in countries that have more established banking systems. The sums received from remittances increase income above national average incomes and also affect the size of informal savings among remittance recipients. Thus, their savings are larger relative to those not receiving remittances. The propensity for informal savings and the amount of savings among remittance recipients make formalizing their demand for financial services an important strategy for development practitioners and financial institutions alike.

At the household level, remittances contribute to asset building, both liquid and fixed. This impact is seen in the differences in financial practices among people who receive remittances and those who do not. In general, remittance senders tend to think and consider investment options and remit for savings or investment in the household. As a result, recipients tend to have a higher ability to save, invest, and open bank accounts. In most remittance-receiving countries the percentage of people holding bank accounts is higher among remittance recipients than non-recipients.

## 1.5.1 REMITTANCES IN RELATION WITH INVESTMENT AND CONSUMPTION

The economic impact of remittances on the domestic economy predominantly relies on upon the usage of remittances by beneficiaries. Utilizing remittances for utilization differently affects economic growth than utilizing remittances for investments. In the event that remittances are utilized for utilization it is required to limitedly affect the economic growth of a nation. Then again, for productive investments the effect on economic growth is solid. For instance, when a rancher puts resources into additional creatures in his domesticated animals, this may have a long haul effect on his economic position. In like manner, remittances can fund business exercises. Potential solid confirmation for economic growth could be found in the connection amongst remittances and little organization new companies. In spite of the fact that, the effect of remittances on economic growth is likewise influenced by the Multiplier effect. The multiplier effect could likewise work for remittances that are spent on utilization. The multiplier effect is working if remittances increment utilization; along these lines this could make additional request and this could bring about economic growth. By the effect of remittances on economic growth, remittances may enhance the fundamental needs of individuals and may lift beneficiaries out of destitution. Remittances are by and large spent on utilization necessities, for example, sustenance, apparel, drug and sanctuary, which straightforwardly enhances the flourishing of the beneficiary and this effect is broadly perceived (Barajas et al, 2009, p.3). What's more, remittances tend to flow from generally rich transients towards moderately poor households and remittances beneficiaries in less created nations spend a higher bit of the got remittances on utilization (Mallick, 2008, p.9). These two propensities amplify the positive effect of remittances on destitution lessening and resulting income balance in the nation. Remittances are a piece of the savings of labourers abroad and increment the aggregate pool of accessible assets for investments in the domestic economy (Solimano, 2003, p. 6). On the off chance that beneficiaries don't straightforwardly spend remittances in the domestic economy, however spare remittances on a store record of the bank, it could improve economic growth on the off chance that the extra finances are utilized for loans that back productive investments. A potential positive effect of remittances on economic growth is that remittances may expand investments by turning into a substitute for wasteful or non existing credit markets (Guiliano and Ruiz-Arranz, 2006, p.1). Productive credit markets empower individuals to get credit with a specific end goal to attempt investments adding to economic growth in the domestic nation. In the productive credit market case, if vast gathering financial specialists get remittances, they advantage from the eagerness by banks to give loans, because of the expanded creditworthiness. Due to this remittances increment the capacity of the borrowers to meet the obligation commitments set by the bank. Beneficiaries can attempt investments with the remittances and can likewise acquire a higher loan from the bank. Be that as it may, credit markets may likewise work wastefully subsequently of credit apportioning. Credit proportioning is the circumstance when a bank restrains the supply of loans, despite the fact that the bank has adequate assets to give the loans, notwithstanding when a borrower will acknowledge the terms of the bank. The inflow of remittances may empower borrowers with a higher hazard to enhance their insurance, so that the danger of the borrower will diminish and subsequently the bank will build the supply of loans. This may diminish the issue of the credit proportioning. Chiefly destitute individuals experience the ill effects of the credit apportioning issue, since they fall in the high hazard pool as they have constrained insurance. The nearness of the inflow of remittances can ease this credit market issue and may enhance the credit conceivable outcomes to embrace potential productive activities, which can prompt economic growth in the domestic nation.

## Remittances and the development of the financial sector

The impact of remittances on the advancement of the financial sector and the impact on economic growth is from the earlier not clear. A few instruments are grinding away in the financial sector with restricting effects on economic growth. The advancement of the financial sector is influenced through the expansion in creditworthiness of the beneficiaries. The expansion in creditworthiness makes the likelihood for the bank to make all the more new or expand existing loans. Plus, the banking sector profits by the way that hazard on default is differentiated. On the off chance that that a specific financial specialist defaults, the bank will endure a misfortune, however the bank won't wind up in credit issues or even go bankrupt. The bank is better secured against the danger of default by a solitary financial specialist, on the grounds that the substantial gathering of speculators, with various investments, remunerates the danger of default by a solitary financial specialist. This effect is general, yet for remittances the effect could be more exceptional. As remittances flow to an extensive gathering of potential financial specialists, with various hazard profiles, the bank is better secured against default. As a result of this, the hazard premium set by the bank will diminish. The financing cost on loans ascertained by banks will diminish, on the grounds that the loan fee incompletely comprises of the hazard premium. In the domestic financial sector the cost of capital will diminish and the interest for loans will increment with positive effects for the economic growth in the nation.

Another instrument that influences the advancement of the financial sector is the expansion in financial exchanges, through which conceivable economies of scale emerge. As Chami (2008, p.41-42) takes note of, the inflow of remittances expands the interest for exchanges by the domestic banking sector. The aggregate volume of exchanges in the domestic banking sector will increment and this may bring about an abatement of the cost per exchange for the bank. Expressed in an unexpected way, economies of scale may emerge from this procedure. The domestic banking sector will operate more productive and this may bring about a lower cost of capital in the financial sector of the nation that may positively affect the economic growth.

Remittances may likewise negatively affect the improvement of the financial sector. Aggerwald et al. (2005, p. 2) see that the expansion of remittances, as an inflow of new accessible subsidizes outside the domestic banking sector, may work as a substitute for the domestic banking sector. The expansion of remittances offers speculators an other option to fund investments. In this way, the interest for bank credit will diminish and the advancement of the banking sector will be contrarily influenced.

## Remittances as (a) cyclical source of finance

A positive connection amongst remittances and economic growth is that remittances may increment macroeconomic soundness in the domestic economy. The inflow of remittances is thought to be a more steady flow of capital than help, FDI and other capital flows (Ratha, 2003, p. 31). Consequently, the inflow of remittances declines the unpredictability in the domestic economy. In this manner the hazard premium of financial specialists may reduction and undertaking investments will turn out to be more alluring. Subsequently more investments will be embraced and this together may prompt economic growth in the domestic economy (Barajas, et al., 2009, p. 6). In the event that beneficiaries of remittances experience terrible circumstances in the nation of origin, for example because of an economic emergency or a surge fiasco, remittances may increment and work countercyclical for the domestic economy (Solimano, 2003, p.2).

## Remittances and trade

A potential negative effect of the inflow of remittances on economic growth in the domestic nation is the supposed Dutch Disease effect. In the event that the inflow of remittances causes a valuation for the genuine exchange rate and a hampering of the tradable sector, the intensity of the nation on the world market will diminish. In the event that remittances flow in a nation, the request of merchandise by economic specialists in the domestic economy will increment. This request is normally one-sided towards non-tradable domestic products. While costs tend to ascend in the non-tradable sector, the costs for the tradable sector are resolved on the world market (expecting the nation does not influence the world market costs). Subsequently the genuine exchange rate will acknowledge

and this hampers the tradable sector in the domestic economy. The Dutch Disease effect is a significant issue for nations that get an impressive measure of remittances. India could be a decent case for the Dutch Disease effect, since India is the top-beneficiary of remittances in the world.

#### Remittances and the labour market

On the off chance that beneficiaries of remittances advance amongst work and relaxation, they may substitute the transmitted income flow for work income and increment the utilization of recreation. The inflow of remittances, or stated in an unexpected way, a non-work income, will expand the lowest pay permitted by law that a specialist will acknowledge. This substitution effect will prompt a lessening in the work market support of beneficiaries and will diminish the work market supply (P. Acosta, 2006, p.36).

Remittances don't really negatively affect the domestic work market, since remittances may affect the work market. The inflow of remittances may build the interest for merchandise as additional income is spend on the neighbourhood market. Therefore, the interest for domestic work will build, this will bring about growth of the domestic work market and thus the domestic economy. Additionally, remittances could be utilized to substitute work for capital in the production procedure. This procedure may improve the market position of a domestic organization by the more proficient production and result in growth of the organization. In this procedure of growth additional work is request and this thusly may generate additional work with positive effects for the domestic work market. The net effect of work substitution is however equivocal.

A positive effect of remittances on the work market is that remittances may empower toa little gathering of to a great degree poor beneficiaries to take an interest on the work market. Ordinarily this gathering is dormant on the work market because of the absence of fundamental expectations for everyday comforts, similar to nourishment and haven, to achieve the insignificant level of expectation for everyday comforts. Too, the income of remittances may empower households to send their kids to class, expanding their instructive benchmarks and this may have positive externalities for the work market and for economic growth. Regardless of the possibility that remittances tend to flow to moderately rich exiled person households. Despite the fact that remittances diminish the individual work market interest, the non-market household work may increment and advantage the household, in for instance the child rearing, social exercises and so forth with potential positive effects for the instructive level of the youngsters (P. Acosta, 2006, p.37).

#### Remittances and political economy effects

Remittances may have a more extensive impact than exclusively on the economy. The association between economic strategies and foundations might be influenced by the inflow of remittances. As Catrinescu et al. (2009, p 14-16) finish up 'organizations assume an essential part in how remittances influence economic growth'. The inflow of remittances can make a bigger gathering of contributors that thusly may influence the domestic government so as to attempt advantageous macroeconomic arrangements (Chami, 2009, p. 42 and p. 59). For instance, the domestic government may embrace changes to enhance the wellbeing of the domestic banking. Then again, Barajas (2009, p. 5-10) traces that the inflow of remittances may lessen motivating forces for beneficiaries of remittances to screen the government policy effectiveness. Thusly, potential expenses of terrible economic strategies of the government are somewhat lightened by the changeless inflow of remittances and this may deteriorate the nature of domestic foundations.

From the point of view of the government the effect of remittances is not clear, in light of the fact that political economy effects of remittances on the domestic economy are dubious and rely on upon different elements with an unpredictable collaboration in the nations' economy. The effect on economic growth is relied upon to be little. A profound and broad examination of the political economy effects of remittances in the beneficiary nation is past the points of confinement of this proposition.

## 1.6 CONCLUSION

Migration of people to other countries in search of employment has occurred all through history and it is by no means a new phenomenon. The objective of this paper is to understand the different facets of migration. Migration and remittances are intertwined. The usage of the remittances at household level is affected by several factors like the household and migrant characteristics. Remittances lead to better economic and social conditions of the households due to reduction in credit constraints and allowing for access to better education and health care for the members of the migrant households. It should be noted that remittances are put to several uses like day to day consumption, medical, education, improvement of house, purchase of a new land, financial help to relatives, and setting up a business. Well, most of these might be thought as unproductive investments. However, such expenditures have a positive effect on hygiene, physical well being, raising labour productivity and enhancing property values. Hence one can infer that migrant households are rational economic agents that do not essentially engage into conspicuous consumption. It has been observed that migrant households set aside moderate amounts for savings, equipments, improvement of house, home purchases etc. hence investing into productive activities.

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## THE FUTURE OF BUSINESS IS DIGITAL MARKETING: A DESCRIPTIVE STUDY

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## **ABSTRACT**

Digital marketing facilitates the marketers to have frequent and interactive communication with the target customers in a speedy way. The diversity of digital channels like internet, email, social-media, display-advertising and mobile phones provide an opportunity to develop long-term relationships with customers. At present, the world people are getting themselves contacted with digital media. There are more than 3.7 billion internet users in the world. In India, digital media business is growing at a rapid rate. Now, a need of the hour is to understand customers' preferences, tastes, and likings regarding digital media so that marketing campaign may success. The number of internet users, mobile penetration in the country and "Digital India" offer many opportunities for the marketing. Marketers have to understand how to use digital channels effectively for marketing and also must concentrate on trust building among customers.

## **KEYWORDS**

digital marketing, digital channels, strategies, internet-users.

#### 1. INTRODUCTION

here are different types of digital channels like internet, social media, email, mobile phones, mobile apps, and digital technology. These channels have become an integral part in lives of more than 3.7 billion people in the world (*Internetworldstats.com*). Digital channels provide a new platform to develop and maintain a long time relationship with customers. Marketers' interaction with customers help in building strong and long term relationship with customers and thus digital channels propel the business in this context (*Bhattacharya & Belton, 2000*). Marketers also understand the cost differentiation between the use of traditional communication media and digital channels (*Reinartz al.et, 2005*). Comparing to the traditional communication media, digital media provide cost efficiency as well as better and fast interaction with customers. Marketers' prime objective is to make an interaction with the customers of the company and its offerings. It can be easily fulfilled by the use of digital channels for marketing and this will enhance customer loyalty towards the brand as well as towards the company. By doing this customers may feel emotionally valued himself/herself for being interacted and cared (*Jayachandran et. al, 2005*). Digital technologies offer a great opportunity to the marketers and digital marketing will dominate over the marketing practices of next decade (*Kenney way, 2007*).

## 2. LITERATURE REVIEW

Concept of Digital Marketing: Electronic Marketing started with the use of telegraphs in the 19th centuary. It is the transfer of goods and services with the help of electronic media. With the inventions of cable-network, electronic media, with the use of television and radio, marketing practices began to change (Hoge, 1993). This term was first used in 1990. It refers to online marketing, internet marketing or web marketing. It has been a most common term after 2013. It is a booming industry. It is an umbrella term for the marketing of products or services using digital technologies, mainly on the Internet, but also including marketing through mobile phones, display advertising, and many other digital media (Barwise & Fairly, 2005; Mishra & Taruna, 2016). Urban (2004) defined the digital marketing saying that digital marketing uses internet and information technology to extend as well as to improve traditional marketing functions. Recently, internet marketing is playing a dominant role for the marketers. This is a specific paradigm which includes both market and medium (Farhoomand & Lovelock, 2001). Coviello, Milley and Marcolin (2001) defined E-marketing as using internet and other technologies to create and to mediate dialogue between firms and identified customers. Since the 1990s and 2000s, there have been dramatically changes in field of marketing. Digital marketing campaigns are becoming more prevalent as well as efficient, as digital platforms are increasingly incorporated into marketing plans and everyday life. Digital marketing offers new opportunities to attract, to build a strong relationship and also to serve customers (Rowley, 2005; Simon, 2007). Nowadays, people use digital devices instead of going to physical shops. Digital marketing such as Search Engine Optimization (SEO), Search Engine Marketing (SEM), Content Marketing, Influencer Marketing, Content Automation, Campaign Marketing, Data-Driven Marketing and E-Commerce Marketing, Social Media Marketing, Social Media Optimization, E-Mail Direct Marketing, Display Advertising, E-Books, Optical Disks and games, are becoming more and more common in our advancing technology. In fact, this extends to non-Internet channels that provide digital media, such as mobile phones (SMS and MMS), callback and on-hold mobile ring tones. E-marketing has also been renamed as interactive marketing (Brodie et al., 2011).

## 3. OBJECTIVES OF THE PAPER

With passage of time, Marketing has gone through diverse improvements and changes. At present, modern marketing practices are prevailing and marketers' focus is on Internet Marketing, Web Marketing, Online Marketing, Telemarketing and Mobile Marketing and so on. Digitalization of marketing practices is the future of marketing. This paper has the following objectives:

- 1. To highlight the potentials and scope of digital marketing in India as well as abroad.
- 2. To highlight the different paradigms of digital marketing.

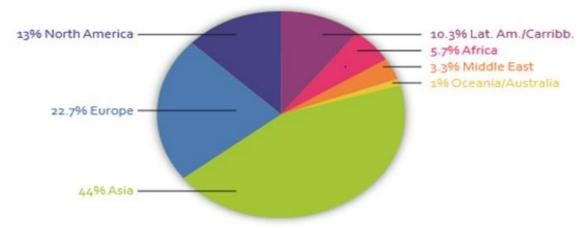
## 4. RESEARCH METHODOLOGY

This research paper is review based.

**RESEARCH DESIGN**: For this research paper descriptive research design has been used.

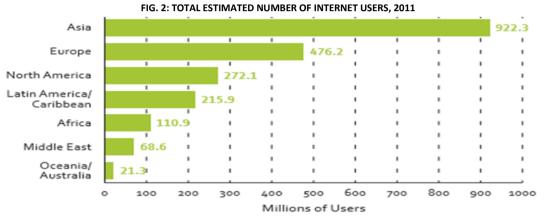
## 5. ANALYSIS

FIG. 1: DISTRIBUTION OF GLOBAL INTERNET USERS, 2011



## Source: Internet World Stats - www.internetworldstats.com/stats.htm

The figure number 1 shows the distribution level of global internet users in 2011. In Asia there is the maximum number of internet users. Asia has 44%, Europe has 22.7% and North America has 13% of the world internet users.



Source: Internet World Stats - www.internetworldstats.com/stats.htm

The figure number 2 shows the distribution level of global internet users by 2011. In Asia there is the maximum number of internet users. Figure number 1.1 elaborates this. Asia has 992 million, Europe has 476.2 million and North America has 272 million of the world internet users.

Population Population Internet Users Penetration Growth Users % **World Regions** 2000-2017 Table ( 2017 Est.) % of World 31 Mar 2017 Rate (% Pop.) **Africa** 1,246,504,865 16.6 % 345,676,501 27.7 % 7,557.2% 9.3 % 4,148,177,672 1,873,856,654 1,539.4% <u>Asia</u> 55 2 % 45.2 % 50.2 % 822,710,362 10.9 % 636,971,824 77.4 % 506.1% 17.1 % <u>Europe</u> Latin America / 647.604.645 8.6 % 385,919,382 59.6 % 2.035.8% 10.3 % Caribbean Middle East 250,327,574 3.3 % 141,931,765 56.7 % 4,220.9% 3.8 % 363,224,006 4.8 % 320,068,243 North America 88.1 % 196.1% 8.6 % 40,479,846 27,549,054 Oceania / Australia 0.5 % 68.1 % 261.5% 0.7 % 100.0 % 49.6 % **WORLD TOTAL** 7,519,028,970 3,731,973,423 933.8% 100.0 %

FIG. 3: WORLD INTERNET USERS, 2017

Source: Internetworldstats.com

The figure number 3 shows the world internet users by March, 2017. In Asia there is the maximum number of internet users. Asia has 1.8 billion, Europe has 636 million, Africa has 345 million and North America has 320 million of the world internet users. Thus, it can be concluded after analysing the internet users of 2011 and 2017 that number of internet users has been increasing worldwide.

FIG. 4: DIGITAL MARKETING IN INDIA- SOME LUCRATIVE FACTS

\$ 7997
bn
Population
Colls)

1.27
bn
Population
Colls)

1.05
Broadband
Subscibers
Colls)

3.2%
Internet related
contribution
to GDD

The above figure shows the potentials for digital marketing with different aspects. Growth of digital media business is expected to reach INR 200 billion by 2020 in which 23-28% contribution would be of digital advertisements. The digital marketing not only allows to the marketers to market their products but also allows the online consumers for customer supported services through 24/7 to make customer feel supported and valued. Consumers' preferences, tastes and likings in digital era are very important to understand so that success can be obtained. Consumers prefer to shortform content; with the average length of video viewed in India being less than 20 minutes. Moreover, 62% of the content which is consumed on YouTube is short-form content. This trend has led content producers like Eros International & Star to focus on exclusive and snackable content. It has created a huge opportunity for storytelling to be optimized from a story point of view, and not from its length point. The same can be seen in the content created by digital media companies like AIB, TVF, Ping, Culture Machine and many others. Now in India, 4G-inernet service is also available (ey.com/publication). By March, 2017 there were more than 462 million internet users that is the second largest after the china which has about 731 million and about 157 million Facebook subscribers in India the second largest after the Unites States which has 201 million (internetworldstats.com). In the whole world Indian mobile sector has established a sustained momentum. The development of this sector goes to higher subscriber volume, lower-terrifs and falling handset prices. Mobile penetration rose from 72% in 2011 to 81% in 2016 and it is also expected that market will reach with mobile penetration over 90% in 2021(Budde.com.au).

## 6. DIGITAL INDIA

This programme was started by Indian government in 2015. The aim is to connect Indian economy with rapid changing and growing world economy and also to make Indian people available different services, benefits, newest information, and technologic- innovations digitally. The project has three main aspects:

- (1). Digital infrastructure
- (2). Digitalization of services and resources
- (3). Digital education

Digital India will provide high speed internet access, e-services, Digital inclusion, Digital- locker, e-sign, and many more (digitalindiainsight.com). Thus, we can say that in such circumstances marketers will have more opportunities to market their product not only to the urban Indian but also to the remote rural Indian in an easy and speedy way.

## 6.1 CHANGING FACE OF RURAL INDIA

Rural India is getting transformations in case of literacy level, infrastructure, income, consumption, and usage of internet. As we know mobile wallet is increasing popular in urban as well as in rural India. In 2013, as per an estimation-there were 351 million internet users in the country and out of which 33% were from rural India. This percentage is expected to grow up to 50-55% by 2020.

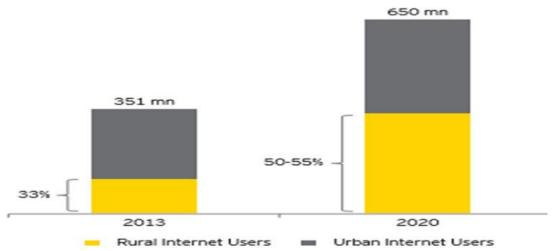


FIG. 5: PERCENTAGE INTERNET USER IN RURAL-URBAN INDIA

Source: (ey.com/publication).

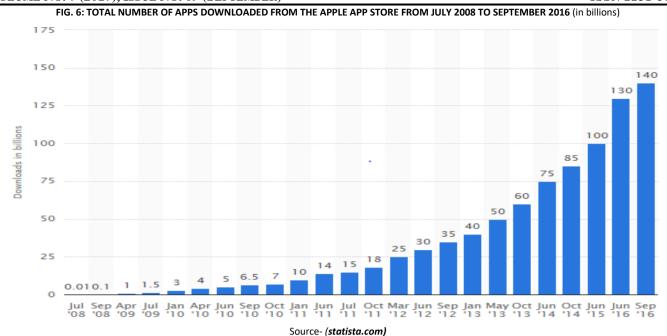
## 7. LATEST DEVELOPMENTS AND STRATEGIES

The "emergence of digital marketing is the greatest change in the traditional marketing and this leads to reinvention in the traditional marketing" (*Patrutiu & Loredana, 2015*). Digital marketing is dependent on technology which is ever-evolving and fast-changing. More focus has been placed on segmentation within digital marketing, in order to target specific markets in both business-to-business and business-to-consumer sectors. *Viral campaigns*: As per the opinions of the opinion leaders, viral campaigns will be more effective and powerful in the online communities. For the very purpose, there is need to create viral campaigns meticulously (*Yang et. al, 2012*). Factors like humour and sexuality are the main factors in ads which attract and propel the consumers to viral ads because when users are entertained by ads, they tend to pass on ads to their interacted group (*Golan and Zaidner, 2008*). Proper use of social media: This can help the marketers to establish a strong positioning among the online community. Except this, perception and responses of customers should be studied. Issues like study of customer

behaviour in online network, development of exchange relationship within peer to peer networks and e-communities and issues related to advertising, viral campaigns and media should be minutely designed and implemented (Cummins et. al, 2014). Social Responsibility: When a company fulfils its social responsibity, has a more impact on customers' evaluation of company and on their purchase intention (Mohr & Webb, 2005). Trust: The trust is very important in digital marketing and it significantly and positively influences the customers' credibility in case of product services through online- channel. Digital marketing is a multichannel platform, full of complexities and it requires better understanding of consumers', beliefs, attitudes and way of interactions to market product online (Badrinarayan, et. al, 2012). In the online marketing, it is important to understand how the WOM affects and customers behavioural tendencies in developing strategy to maintain strong customer relationship (Kim & Song, 2010). Customers' involvement in purchase decision directly depends on a high level of trust in shopping sites (Lee et. al, 2008). Trust helps to build a strong customer relationship with all service, quality and satisfaction in online-marketing and this will propel the customers to decide and purchase more through online-network (Lee & Lin, 2005). Novel and Emotive Content: Customers are watching vedio online and advertisers are availing video-sharing sites like YouTube to promote their video advertisements. Some advertisements go viral and reach to millions of consumers. After analysing such observation, managers are urged to focus on promoting highly emotive and novel content when promoting brand content on YouTube (Leonhardt, 2015). Integrated Digital marketing Approach: Webber (2013) stressed on developing a framework to create digital strategies. The approach of integrated marketing including social channels like Blogs, Facebook, Twitter, MySpace, Linked din, Community, YouTube and so on and traditional channels suc

## 8. DIFFERENT CHANNELS OF DIGITAL MARKETING

- 1. **Influencer marketing**: This is becoming an important concept in digital marketing. It is possible to reach Influencers via paid advertising, such as Facebook Advertising or Google Ad words campaigns, or through SCRM (social customer relationship management) software, such as SAP C4C, Microsoft Dynamics, Sage CRM and Salesforce CRM (*Nielsen*, 2015).
- 2. Online behavioural advertising: Digital media provide opportunities to youth to post their personal information and photos online on regular basis. The study shows that in Brazil 46% of children follow this (Safenet, 2009). Young users maintain strong and positive attitudes towards online vedio, blogs, and ads formats comparing to aged users (Cox, 2011). It is important for the marketers to investigate the factors which affect consumers' attitudes and motives. Consumers are taking part in different activities like consuming content, participating in group dialogues, and sharing knowledge with other consumers, to contributing to other consumers' activities (Heinonen, 2011). The study strived to disclose the different important aspects of social media sites that influence consumers' attitude and concluded that group members on Facebook have positive attitude towards social media site advertising. Thus, we can also conclude that social media is a powerful platform for online ads (Chu, 2011). Online advertising may be divided into push advertising such as e-mail ads, pop-up advertisements, newsletters, banner advertising which seems like offline advertising; and on-demand advertising such as search engine marketing, smart/keyword activated banners which allows for a more non-interruptive form of advertising.
- 3. **Data-driven marketing**-It is a process of generating insights and trends by analysing market data or company generated data and then translating these insights and trends into actionable strategies to cater changing trends and demands of customers (ngdata.com)
- 4. **Remarketing-**It is a business strategy to maintain contacts with the potential customers. It reminds the customers about the products/services they purchased or used in past. With advent of internet, its role has increased in an effective way *(marketing-school.org)*.
- 5. Game advertising-It uses different game apps.
- 6. Content marketing- Briefly, it can be described as "delivering the content that your audience is searching for". The main objectives for content marketing can be brand awareness, lead conversion, customer conversion and customer up sell (Rose and Pullizzi, 2011). Content should be with some uniqueness, somewhat remarkable (Halligan and Shah, 2010) or it should support the objectives with satisfying customers' needs (Davis, 2012).
- 7. Mobile marketing: Mobile marketing is marketing on or with a mobile device, such as a smart phone. Mobile marketing can provide customers with time and location sensitive, personalized information that promotes goods, services and ideas (*Karjaluoto & Leppäniemi*, 2005). Andreas Kaplan defines mobile marketing as "any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device"(*Andreas, Kaplan, 2012*). There are three things; a marketer should consider when he wants to take business through mobile or internet marketing. (A) Mobile apps (B) Payment Option (C) Adaption (*gadzoog.com*). India has 70% access web via mobile phones (*ciim.in*).
- 8. Social Media Marketing Social networking sites provide huge opportunities to interact with world and people to maintain and develop friendship and relationship (Clarke, 2009). India has more than 82 million monthly active Facebook users, the third in world after the USA and Canada (ciim.in). 'Digital Marketing' has a number of marketing channels used in and among these, comes the Social Media. When we use social media channels like Facebook, Google+, Pinterest, Twitter, etc. to market a product or service, the strategy is called Social Media Marketing. It is a procedure where in strategies are made and executed to draw in traffic for a website or to gain attention of buyers over the web using different Social media (digitaldoughnut.com). Skaar (2009) argues that websites like Habbo and Piczo have become very important for the children and offers impotant social space and experiences.
- 9. **Display Advertisement** Website is the most important tool of communication on internet (*Lopez & Ruiz, 2011*) and fulfils different functions (*Hwang et al. 2003; Karson & Fisher, 2005*). It involves graphical advertisement and placing them next to content on the websites via Emails, using other digital formats. Advertisement can be images, audio/vedio clips, animation or other interactive contents (*digitaldoughnut.com*). It provides a platform for public relation. Online marketing facilitates this through different ways.
- a) Video advertising: Such type of advertising means the advertisements that are played on online videos e.g. YouTube videos. Such type of marketing has seen an increase in popularity over time. Online Video Advertising usually consists of three types.
  - (i) Pre-Roll advertisements which play before the video is watched
  - (ii) Mid-Roll advertisements which play during the video  $\,$
  - (iii) Post-Roll advertisements which play after the video is watched.
- b) Affiliate Marketing: It is also called performance based marketing. It involves business owner and one or more websites/affiliates. Affiliate owners place advertisement on their websites to market the products or services in exchange for percentage of profits. The affiliates can make money in three ways (A) pay per click (B) pay per sale (C) pay per lead. In this marketing- owner's advertisement is free of cost (digitaldoughnut.com).
- 10. APP Based Marketing: With the increasingly widespread use of smart phones, app usage has also greatly increased. Therefore, mobile marketers have increasingly taken advantage of Smartphone apps as a marketing resource. This allows for direct engagement, payment, and targeted advertising (statista.com).



## 9. FINDINGS OF THE STUDY

- 1. There are more than 3.7 billion internet users in the world. In Asia, there is maximum number of internet users (I.8 billion) followed by Europe (636 million), Africa (345 million) and North America (320 million) by March, 2017.
- 2. India has the more than 462 million internet users by March, 2017 of which 150 million Facebook- subscribers. India has more than 82 million monthly active Facebook users, the third in world after the USA and Canada.
- 3. Digital media business is expected to reach INR 200 billion by 2020 in which 23-28% contribution will be of digital-advertisements. Marketing with Mobile-Apps and social media is like emerging trends.
- 4. 62% of the content consumed by consumers on you Tube is short term content.
- 5. In India, Mobile penetration rose from 72% in 2011 to 81% in 2016 and is expected to reach over 90% in 2021.
- 6. By the end of 2020, there will around 650 million internet users in India and of which 50-55% will be from rural India.
- 7. Marketers should not ignore the power of Viral Campaigns to gain competitive advantages.
- 8. In digital marketing, Trust-Building is must.

## 10. SUGGESTIONS AND MANAGERIAL IMPLICATIONS

(1). Digital integrated marketing approach should be used by marketers. (2). For the success of digital marketing, marketers' focus should be on short term content as consumers prefer short-term digital-content and length of vedio viewed in India being less than 20 minutes. (3). In India, mobile penetration is high, so APP-based marketing will be the perfect weapon. (4). Business should focus on their social responsibilities and trust building among their customers and this will create customer loyalty among customers. (5). Marketers should effectively utilise viral campaign and social media. *Mazzarol et. al., (2007) and Ferguson, (2008)* proposed that positive word of mouth plays a significant role in marketing and viral campaigns propelling customers to purchase. In this study, the researchers said that Digital Content should be valuable, useful, as per time, relevant and compelling (*Holliman and Rowley, 2014*). Work-framed communication will generate a more effective influence than fun-framed communication (*Mckey and Yoon, 2015*). A current study concluded that users' generated e-WOM directly influences the brand attitude and customers' purchase intention (*kudeshia and Kumar, 2017*). The study of (*Yang et. al, 2017*) stated that entertainment, informativeness, irritation and credibility influence the purchasing attitudes of online customers. All these suggestions will help the marketers to understand and avail the digital environmental opportunities in India as well as in abroad and all this will enhance their morale in field of marketing.

## 11. CONCLUSION OF THE STUDY

Online connected customers offer huge opportunities to be availed by the marketers. Online network is a bazaar, a place to interact with ongoing world and to learn many new things (*Levine, et al., 2001*). Digital Marketing especially social marketing is driving changes in customers' behaviour and also in society at global level (*Kaplan and Heinlein, 2010*). For digital marketing "shared consciousness and a sense of moral responsibility and affinity from companies will enhance the trust level of customers" and will make consumers more confident for acting on information gained from online communities (*Bart et al., 2005*). The appearance of the online community Web site will facilitate the trust-building among customers and success of online marketing campaign (*Schlosser et al., 2006*). Effective use of digital marketing can result in relatively lower costs in relation to traditional means of marketing such as lowered external service cost, advertising cost, promotion cost, processing cost, interface cost and control cost (*Van, 2007*). Advertising in online social networks will soon become a key marketing strategy as visits to the online social networks are continue to increase and will definitely impact traffics to commercial websites. Digital marketing is an effective tool in the hands of marketers in this competitive era and for this marketing manager should focus on digital contents (*Rowely, 2010*). E-mail has also become integral part of people' everyday lives in workplaces and home (*Danaher and Rossiter, 2011*). Thus, marketers has started thinking with development of digital media that immediate future is full of opportunities for broadening the focus for making marketing a success (*Bell et. al, 2012*). Young Customers show strong attributes for online advertising formats with blogs, video, brand channel and brand page than the matured and aged customers (*Brackett & Carr, 2001*).

Digital marketing is a very important feature in the success of a business. Now there is need to modify the marketing devices as per the changing scenario. The growth is expected to be fuelled by availability of low- cost smart phones, low rates of data plans and development of smart cities in rural areas. Marketing practices like internet marketing, mobile marketing and email marketing will help to achieve a competitive edge in the market for long run profits. A good marketer should know how to avail the power of social media and other devices of digital marketing to market the brand image of company. Digital marketers should focus on products with unique selling propositions, better quality, zero defects and cost effectiveness. Simultaneously, there is need to understand the online social network users' attitude before drafting marketing campaign as attitude of online users differ across different age group.

## 12. SCOPE FOR FURTHER RESEARCH

This research paper is a review based effort. If extensive literature review is done or primary data is collected, findings may be different. So, the researchers have an opportunity to do a similar study with extensive literature survey and with primary data to highlight the hidden paradigms of digital marketing.

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## AN ANALYSIS OF THE USE OF STRATEGIC MANAGEMENT ACCOUNTING BY ZIMBABWEAN MEDICAL LABORATORIES IN HARARE

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#### **ABSTRACT**

The study finds out that there is a largely high level of use of operational strategies, but this is not translating into usage of SMA practices medical laboratories in Zimbabwe. SMA practices commonly used by medical laboratory institutions in Zimbabwe are: brand valuation; use of balanced score cards; activity based management; strategic costing and pricing; target costing; customer accounting; and benchmarking respectively. There are numerous factors with varied impact on influencing the embracing of SMA practices by medical laboratories, these include lack of financial resources primarily and extending poor technologies, lack of skills, and insufficient human resources. However, policy inconsistency and an unfavourable business environment rank weakly in influencing the adoption of SMA practices. The study recommends the enhancement of operational strategies by using SMA practices because strategies not financially informed may lead businesses to pursuing strategies that lack economic viability and the medical laboratories should consider investing in systems that support adoption of SMA practices, such investments as hiring qualified accountants as well as equipping their accounting staff with SMA skills.

## **KEYWORDS**

Zimbabwean medical laboratories, strategic management accounting, Harare.

## INTRODUCTION AND BACKGROUND OF STUDY

he major challenge faced by practitioners when practicing conventional management accounting is its affiliation with strategy. Thus, challenges for most managers, consultants and management scholars, pertains to the proper alignment of entities' functional activities and disciplines at the same time supporting corporate strategy for the entity, specifically aligning the strategy and management accounting function. Extensively published criticisms of the conventional management accounting practices during the 1980s and 1990s resulted in an increase of interest in strategic management accounting (SMA) as an alternative or development of the conventional management accounting approaches by trying to give more strategic role to management accounting (Cadez & Guilding, 2008).

Strategic Management Accounting (SMA) is defined as: the body of management accounting concerned with strategically orientated information for decision making and control (Langfield-Smith, 2008). (Shah, et al., 2011) submits that the launch of SMA and its development by accounting scholars as a contemporary discipline, which is envisioned as a flagship of the accounting profession, focusing on the evaluation of the business against their rivals/opponents (Simmonds, 1981), in order to enable management to have a 'bird's eye view' of the competitors' actions and business practices so that they make apposite decisions (Bromwich, 1990). Zimbabwe's private for-profit health sector expanded between 1995 and 2007, with both local and foreign investors active, particularly through mergers and acquisitions (Munyuki & Jasi, 2009). Additionally, the adoption of multiple currencies as legal tender which ended years of hyperinflation in 2009, saw Zimbabwe developing into a centre of investment and business attraction for foreign investors in all sectors including health services (Marufu, et al., 2014) as a result of the hard currency used which is more valuable and acceptable internationally. This escalated the competitive forces in Zimbabwe's health sector including medical laboratories. In addition to this there has always been indirect competition for Zimbabwean medical laboratories emanating from the forces of globalization as South African medical laboratories have always been attracted to Zimbabwe because of the geographic proximity as well as their ability to offer state of the art laboratory services, which have higher learning curves due to a lot of experience and higher technological exposure (Marufu, et al., 2014). This has resulted in Zimbabwean medical laboratories facing stiff competition in the tough economic environment currently prevailing in Zimbabwe.

Since SMA helps in monitoring a business' performance in the market using a variety of strategic variables over a decision horizon appropriately long for strategic plans to come to fruition. Therefore, SMA supports those management accounting practices that are strategy focused, with a futuristic posture and exact outward focus. As supported by (Juras, 2014), SMA relies on non-financial performance measures, such as the well-organized functioning of customer related and competitor-related SMA practices depends on measures of a non-financial nature. On the other hand, conventional management accounting is generally mostly financial orientated, thus more importance is given to historical financial assessment. Zimbabwe's medical laboratory firms need to increase their profitability as well as sustaining business growth when faced with such a challenging operating environment. They also endeavour to increase value for both clients and the firm through improving the quality of their services. This therefore requires a blend of accurate conventional cost and management accounting practices and additional qualitative information obtained from using SMA. Therefore, the study endeavours to establish the most common SMA practices used by medical laboratories in Zimbabwe specifically focusing on those operating in Harare, the capital city of Zimbabwe.

## STATEMENT OF THE PROBLEM

Generally, accounting research has been able to prove the popularity of numerous SMA practices and the significance of management accountants in relation to playing strategic roles. As outlined by McLellan & Moustafa (2011), the role of SMA in the manufacturing sector is indisputable since most entities depends on SMA practices for coming up with winning competitive strategies. Contemporary business demands that management accountants not only provide strategic information but they should be active in the strategic decision-making process (Bhimani and Kershtvarz, 2009). Nevertheless, understanding is minimal on the

modalities of how accountants contribute in strategic matters (Tillman and Goddard, 2008). In Zimbabwe there is lack of evidence of the prominent SMA practices adopted by medical laboratory entities and the challenges encountered during the adoption of such if they have been adopted. However, the performance of medical laboratories in Zimbabwe has been uninspiring, as shown by the modest contributions of medical laboratory divisions to the financial performance of giants such as CIMAS. This represents a puzzle that the study attempts to address, particularly focusing on the common SMA practices adopted and how these have affected the financial performance of medical laboratory institutions in Harare and furthermore establish if the financial performance of institutions using SMA practices differ from those which do not.

#### **RESEARCH OBJECTIVES**

The objectives of the study are to:

- 1. Establish the extent of adoption of SMA by medical laboratories in Zimbabwe;
- 2. Categorise the commonly used SMA practices by Zimbabwean medical laboratories; and
- 3. Assess factors affecting use of SMA practices by medical laboratories in Zimbabwe.

#### LITERATURE REVIEW

Scholars such as Boedker (2010) and Kreiner & Mouritsen (2003), outline that the relationship between management accounting and strategy is an extensively researched matter. Accounting roles cab be divided into reflective or constitutive roles and there is a complicated relationship between these roles. Hopwood (1983) outlines that the reflective role of accounting shows accountants' reliance on the entities in which it is entrenched and on the other hand that the constitutive role usually compels entities based on the opportunities and potentialities of the accounting expertise. Usually, the constitutive role forms perceptions of both the limitations on planned actions and the desired outcomes (Hopwood 1983). Furthermore, Hopwood (1987) highlights that the roles of accounting continue to be defined outside of the practice of the profession, with a number of other studies having focused on the analysis of the role of accounting as seen in the enrichment of business performance. In essence accounting practices need to be viewed as being active progressively in producing rather than simply allowing organised enterprise (Hopwood, 1987). Usually, conventional research views accounting as having a subordinate role aimed at ensuring the precise execution of set objectives (Boedker, 2010).

Theoretically the study adopts the Institutional theory notwithstanding the presence numerous other theories dealing with change and these include the structuration theory and the radical theories. The Institutional theory, as propounded by Scapens (1994) and further refined by Burns & Scapens (2000), defines the nature of rules, routines and institutions within organisations. The management accounting practices can either shape or be shaped by the organisations which direct activities in the entities. Naturally, entities create and replicate established ways of doing business and acting. Accordingly, the institutional perspective is an appropriate model to focus on rules, practices and routines, dealing with institutional character in organisations is known. The study is concerned with processes across organisations such as the application of management accounting practices, and therefore adoption of the institutional perspective. The management accounting practices are inevitably entwined with managerialism systems of philosophy.

## STRATEGIC MANAGEMENT ACCOUNTING (SMA) PRACTICES AND THEIR USE

Lee and Park (2006) postulates that efficacious decisions by management must improve the ultimate performance of the entities involved. Since accounting is essential to management, and specifically the use of strategic management accounting for the enhancement of management decisions for general performance of business (Cadez & Guilding, 2008). Therefore, a key view guiding the study, is that enterprises which carefully use suitable strategic management accounting practices should yield more effective decision-making resulting in to healthier performance. The strategic management accounting basis as outlined by Simmonds, (1981), which was later rearticulated as accounting for strategic positioning by Roslender, (1996) is based on the reason that a better market-focused and strategically tailor-made accounting is imperative for business welfare (Langfield-Smith, 2008). The role of strategy is dynamic because managers constantly evaluate blends of several contingency factors (Chenhall, 2003). Thus, there are defender and harvest orientated strategies as well as those strategies meant to attain cost leadership or those linked to recognised performance measurement systems such as objective budget performance targets.

In the 1990s the notion of strategic management accounting (SMA) and contingency studies developed, assuming that the SMA existed as part of management accounting practices applicable in the strategic purposes. However, Roslender & Hart (2003) submits that SMA can be clearly understood as a common method to account for strategic positioning of entities. By definition it is an effort to put together views from management accountants and marketing managers in a strategic management context. Therefore, SMA can generally be defined as the use of management accounting systems to enhance strategic decision making. Most research in SMA is focused on the accounting practices used in various circumstances (Tillman & Goddard, 2008). Numerous studies on SMA practices have been done by such scholars as Carr & Tomkins (1998) and Guilding et al. (2000). Guilding et al. (2000) acknowledged twelve variations of strategic management accounting practices which include: strategic costing; attribute costing; target costing; brand value budgeting and monitoring; lifecycle costing; competitor cost assessment; competitive position monitoring; competitor appraisal based on published financial statements; quality costing; strategic pricing and value chain costing. Such studies found competitor accounting and strategic pricing as the commonly used practices, whilst Tillman & Goddard, (2008) on the other hand advocate that the SMA is not broadly known in businesses, and as a result the meaning of the concept is not understood by most managers.

A number of empirical studies have been done across the globe assessing the adoption of various SMA practices, such studies include Cinquini & Tenucci (2006) who studied big Italian companies and the following 14 SMA practices were ranked in their descending order of use: 1) Attribute Costing, 2) Customer Accounting, 3) Strategic Pricing, 4) Competitive position monitoring, 5) Competitor performance appraisal based on published financial statements, 6) Strategic Costing, 7) Quality Costing, 8) Competitor cost assessment, 9) Target Costing, 10) Benchmarking, 11) Value Chain Costing, 12) ABC/M, 13) Integrated performance measurement, and 14) Life Cycle Costing). From the above SMA practices' use by Italian big companies the first seven had mean scores above whilst the las seven had mean scores less than 3. In another study by Al-Khadash & Feridun (2006) assessing the level of adoption of ABC, JIT and TQM as strategic initiatives by Jordanian industrial companies found that mainly listed entities used such practices, and moreover, there was more cognizance of these practices by their financial managers. However, on the contrary the same study suggested an inverse relationship between awareness level and the level of adoption of the practices. In another study conducted in Croatia by Ramljak and Rogošić (2012) with a population of 400 big firms, detected various frequencies of usage of certain strategic management accounting practices: ABC had a 40% frequency; Quality costing had 39, 4% usage frequency; Target costing had 25.8% frequency of usage by these companies; the balanced scorecard had a 15.2% frequency; and on the lower end of usage was life cycle costing with a 9.1% frequency and environmental costing with a 6.1% frequency. The study concluded that using two or more SMA practices have a positive effect on cost control and reduction improvement.

The last empirical study reviewed conducted by Abdul-Hussien and Hamza (2012) with 20 respondents selected from four Romanian companies as the sample, was meant to test the significance of four SMA concepts and the following results were obtained: Continuous Improvements (mean score was 3.73); Value Chain Analysis (mean score of 3.64 was realised); ABC (mean score of 3.50); and, Balanced Scorecards (with 3.25 as mean score). Based on these findings the study further specified constraints and challenges cited by respondents in applying SMA practices, with the most prevalent limitation being the prohibitive costs related using these approaches in comparison with traditional approaches. On the other hand, the same study also found numerous benefits for Romanian companies after their use of SMA practices. Indisputably, over the years there has been increasing interest in SMA as evidenced by the number of studies which include: Roslender & Hart, (2003); Cadez & Guilding, (2008); Bhimani & Langfield-Smith, (2007); as well as Langfield-Smith, (2008). On the contrary in the numerous studies there is still no consensus as to what makes up SMA (Cadez & Guilding, 2008). It is the result of the view that SMA is widely unknown that the current study interrogates the use of SMA practices by medical laboratory companies in Harare Zimbabwe.

### **METHODOLOGY**

This section focuses on the research methodology used particularly highlighting the research design, population under study, and sampling methods used in the collection of data.

#### RESEARCH DESIGN

Terell (2012) views a research design as the outline which shows the suitable way to conduct a given study. Cooper and Schindler, (2014:126) outline numerous research designs available to choose from including: descriptive, causal explanatory, causal predictive, exploratory, experimental, ex-post facto, cross-sectional and longitudinal designs. The study used a descriptive design, combining quantitative and qualitative research methods to effectively address the objectives of the study, thus a mixed approach. Using the descriptive research design is based on Leedy, & Omrod, (2010), who submits that a descriptive study is designed to obtain facts on the status quo and describes or explains the condition of the variables as they are in a given situation. The study describes the state of adoption of strategic management accounting practices by Zimbabwean medical laboratory companies operating in Harare.

#### POPULATION AND SAMPLE SIZE

The target population for the study is 25 medical laboratories with operations in the Harare Metropolitan Province, made up of 15 small institutions, 7 medium sized and 3 big institutions. To select a sample of the 9 laboratories used in the study stratified random selection was used in order to ensure fair representation of views from the respondents. The study selected 3 laboratories from each size/category so that all big laboratories were used and from the small and medium 3 institutions were selected randomly. In order to select respondents from the chosen laboratories purposive sampling was used with only respondents responsible for the management accounting functions of the institutions being selected, whose total number was 36 with 4 representing each medical laboratory selected for the study.

#### **DATA COLLECTION PROCEDURES AND INSTRUMENTS**

For gathering primary data, the study used questionnaires administered by the researchers and face-to-face interviews were used to collect data from directors and senior managers of the 9 medical laboratories. For the purpose of triangulation secondary was also collected from strategy documents of the various laboratories. Prior to collection of data, the instruments were pilot tested in order to improve validity and reliability of the data collected. The analysis and presentation of data was enhanced by using the Statistical Package for Social Sciences (SPSS), which is appropriate for the analysis of data with uniform responses, since questionnaires predominantly had closed-ended questions with likert scaled responses.

#### **FINDINGS AND RESULTS**

The sample for the study was made up of 36 individual selected from 9 medical laboratories. 27 questionnaires were distributed and 9 interviews scheduled. Response rate for the questionnaires was 88.9% since 24 questionnaires were returned valid whilst for the interviews 7 were successfully conducted resulting in a 77.8% success rate. The overall response rate was 88.9%. The demographic information of participants in the study is shown in table 1 below:

Gender Male Female 21 10 ≤ 40 yrs Age ≤ 30 yrs ≤ 50 yrs > 50 yrs 14 11 Education Diploma Other Degree Certificate 21 6

**TABLE 1: DEMOGRAPHICS OF RESPONDENTS** 

Presented in table 1 above are the key demographic features, of note being the fact that the majority respondents were males with a modal age between 31 and 40 whilst holding university degrees as qualifications.

## USE OF STRATEGIC MANAGEMENT ACCOUNTING PRACTICES

Responses were obtained for a closed-ended question meant to obtain information on the status of the use of strategic management in generally and then SMA specifically. On the use of strategies in general 93.5% (29) of respondents indicated their institutions made use of operational strategies. Results for the use of SMA practices are shown in figure 1 below:

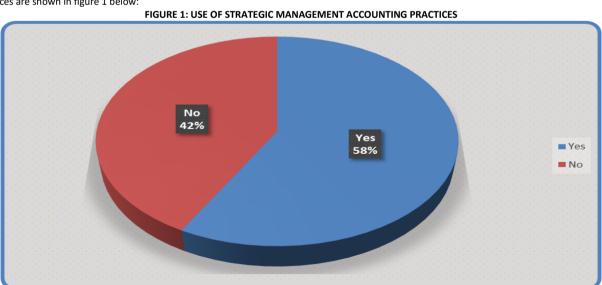


Figure 1 shows that 58% of respondents indicated use of strategic management accounting practices in their institutions whilst 42% indicated no use. It is clear that medical laboratories in Harare use more of operational strategies than SMA. These findings concurred with other scholars such as Al-Khadash & Feridun (2006) who assessing the level of adoption of ABC, JIT and TQM by Jordanian industrial companies and found that mainly listed entities used such practices. Thus, findings from the study showed that mainly large and medium sized laboratories use SMA practices, with an adoption rate of 58%.

#### TABLE 2: OPERATIONAL STRATEGIES \* SMA CROSS TABULATION

		Use of Strategic Mana	Total	
		Yes	No	
Use of Operational Strategies	Yes	16	13	29
	No	2	0	2
Total		18	13	31

As shown 16 respondents indicated the use of both operational strategies and SMA in their institutions.

## **COMMONLY USED SMA PRACTICES**

In order to establish the commonly used SMA practices by medical laboratories, questions requesting respondents the frequency they use numerous SMA practices was asked and the responses obtained are shown hereunder. For the purposes of data analysis, the variables were allocated likert scales of 3 for 'yes, always', 2 for 'sometimes' and 1 for 'never'. The descriptive statistics for these findings are shown in table 3 below:

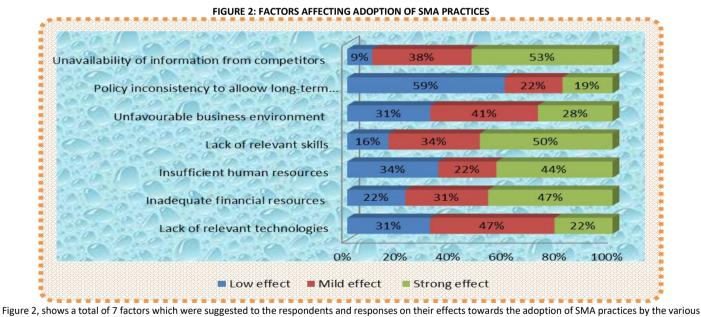
**TABLE 3: DESCRIPTIVE STATISTICS FOR VARIOUS SMA PRACTICES** 

	N	MINIMUM	MAXIMUM	MEAN	STD. DEVIATION
Brand valuation	31	1.00	3.00	2.5161	0.67680
Use of balanced scorecards	31	1.00	3.00	2.3226	0.79108
Activity based management	31	1.00	3.00	2.0968	0.70023
Strategic costing and pricing	31	1.00	3.00	1.8065	0.79244
Target costing	31	1.00	3.00	1.6774	0.59928
Customer accounting	31	1.00	3.00	1.6129	0.55842
Benchmarking	31	1.00	3.00	1.5806	0.76482
Quality costing	31	1.00	2.00	1.5484	0.50588
Competitor assessment	31	1.00	3.00	1.3871	0.61522
Valid n	31				

Table 3 shows that the most predominantly used SMA practice was brand valuation with the highest mean of 2.5161, implying that respondents indicated that the medical laboratories almost always use brand valuation strategically. The least used was competitor assessment with mean of 1.3871 and the standard deviations are almost similar for all practices. These findings were further explained by the interviewees who indicated that most medical laboratories were run by scientists and therefore they preferred more scientific practices such as brand valuation and using balanced scorecards. The use of brand valuation as an accounting practice has been subjected to extensive deliberation. However, from the management accounting view of brand valuation, its prospective value in determining marketing successes for well branded companies is apparent (Cadez & Guilding, 2008). It must be noted that interviewees indicated brand valuation as a highly scientific and complicated practice requiring technical aptitude, which however, was regarded easy by laboratory scientists who were responsible for the accounting functions in their entities.

## **FACTORS AFFECTING THE ADOPTION OF SMA BY MEDICAL LABORATORIES**

After identifying the commonly used SMA practices the study went on to assess the factors which affect the use of SMA practices by medical laboratories in Harare, closed-ended question suggesting possible factors and the strength of their effects and responses obtained are shown in figure 2 below:



nedical laboratories are shown above. One of the SMA practices identified as being less frequently used by the study is competitor assessment which involves information about competitors and responses show that only 9% indicated it had low effect whilst 38% indicated mild effect and 53% indicated a strong effect. Interviewees also supported this view by citing the challenges in Zimbabwe in engaging in competitive benchmarking as most businesses are too secretive. Other factors highlighted as having a strong effect on the adoption of SMA by the medical laboratories are: the lack of required skills (50%), inadequate financial resources (47%) and insufficient human resources (44%). Interviews further explained that the rest of challenges were attached to financial resources limitations since hiring of qualified personnel requires financial resources or the training of current staff also require finances. Findings concur with Boedker (2010), on the effects of financial challenges on the implementation of strategies, the economic situation is contributing towards the levels of adoption of the various SMA practices. On the contrary, Baxter & Chua (2003), argue that poor investment in SMA systems and practices exposes business to competitive challenges resulting in their inability to realise their desired strategies. Technological changes and unfavourable business environments were regarded as having mild effect on the implementation of various SMA practices.

## **CONCLUSIONS AND RECOMMENDATIONS**

Findings presented and analysed above which are based on data from the research led to the following conclusions:

There is a largely high level of use of operational strategies, but this is not translating into usage of SMA practices medical laboratories in Zimbabwe.

- SMA practices commonly used by medical laboratory institutions in Zimbabwe are: brand valuation; use of balanced score cards; activity based management; strategic costing and pricing; target costing; customer accounting; and benchmarking respectively.
- There are numerous factors with varied impact on influencing the embracing of SMA practices by medical laboratories, these include lack of financial resources primarily and extending poor technologies, lack of skills, and insufficient human resources. However, policy inconsistency and an unfavourable business environment rank weakly in influencing the adoption of SMA practices.

Based on the conclusions outlined above, the study recommends:

- The enhancement of operational strategies by using SMA practices because strategies not financially informed may lead businesses to pursuing strategies that lack economic viability.
- Medical laboratories should consider investing in systems that support adoption of SMA practices, such investments as hiring qualified accountants as well as equipping their accounting staff with SMA skills.

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## **GROWTH AND PROGRESS OF HANDLOOM INDUSTRY IN INDIA - A STUDY**

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#### **ABSTRACT**

The study finds out that Handloom is the one of the oldest industry in India. Handloom industry is play key role in the economic development of the country. Providing employment to 43.32 lakhs in this papers has cover Growth & Progress Or handloom industry in India during the first five year plan to 12<sup>th</sup> five year plan.

#### **KEYWORDS**

India, handloom industry.

#### INTRODUCTION

andloom industry is an ancient cottage industry with a decentralized setup. Handloom industry provides employment to nearly 43.32 lakhs of people with 23.77 lakhs looms. Of people are depending up on ancillary occupation connected with this industry. Handloom sector wears are classified into independent weavers, weavers working under master weavers, weavers working for co-operative societies and wage weavers.

## **OBJECTIVES OF THE STUDY**

The study with focus on the following objectives.

- To study the introduction of handloom industry.
- 2. To study the growth of progress of handloom industry.
- 3. To draw the conclusion.

## **SCOPE OF THE STUDY**

The study broadly examines the growth & progress of handloom industry in India.

## **METHODOLOGY**

The required data has been collected using secondary data. Secondary data collected from Reports, Books, Articles, these dissertations.

## **GROWTH AND PROGRESS OF HANDLOOM INDUSTRY IN INDIA**

The Indian handloom industry has become world famous because of its innumerable varieties of fabrics which go into the making of garments and dresses with 30 lakhs looms employed on cotton handloom throughout the length and breadth of India.

During the sixth five year plan, the employment generated in India handloom sector has increased from 61.50 lakhs person in 1979-80 to 74.66 lakhs persons in 1984-85. The export of handloom fabrics value terms went up from Rs. 290.4 crores in 1979-80 to Rs. 348.8 crores in 1948-85. Further the share of handloom sector in terms of output is 39.38 percent in the total production traditional industries during sixth five year plan period.

During seventh five year plan the target of production of handloom cloth has been placed at 4,600 million meters and additional to be generated has been estimated at 23.47 lakhs persons. The export of handloom fabrics and products were also expected to increase from Rs. 348.86 Crores to Rs. 485 Crores.

During eight five year plan period on annual rate of growth of 5% for production of cloth in the handloom sector suggested and the target of production of handloom cloth during 1990-91 to 1994-95 has been estimated 21,300 million meters in cotton, 935 million meters in silk and 695 million meters in wool. To increase availability of silk production should be increased by 100% by the terminal year of the eight five year plan. Number of handloom weavers 65 lakhs, handloom families 14.50 lakhs and handloom 35 lakhs. It is interesting to note that out of 35 lakhs handlooms in the country more than 14 lakhs handlooms are in the co-operative sector.

During ninth five year plan achievements in production of handloom cloth in 1997-98 was 6792M.Sq.M but decreased to 7506 M.Sq.M in 2000-01 and again increased to 7579 M.Sq.M in 2001-02 during the ninth five year plan the government of India adopted a good number of development schemes to develop the handloom industry in India. The handloom industry assigned an increasingly important role. An outlay of Rs. 2768.19 Crores was envisaged during the plan employment potentiality remained stable with 12.5 million persons it is interesting to note that out of 35 lakhs handloom in the country more than 80% handloom are in the co – operative sector.

During Tenth five plan were to produce 7875 M.Sq.M cloth in 2002-03 and 10,000 M.Sq.M in the terminal year 2004-05 employment potentiality was reduced to 12.0 million persons and export target was set to Rs. 2950 Crores in 2002-03 and 4500 Crores in the terminal years 2004-05 during the tenth five year plan outlay for handloom industry was Rs. 140 Crores for 2002-03 and for terminal year 2002-07 it was sent to 625 crores.

During Eleventh five year plan number of handloom weavers 43.32 lakhs handloom families 15.10 lakhs, handlooms 23.77 lakhs and eight five year plan handloom weavers 65 lakhs, handloom families 14.50 lakhs and handloom 35 lakhs. Decreasing the handloom weavers, handlooms and handloom families eight five plan to eleventh five year plan handloom weavers 22.19 lakhs, handlooms 11.23 lakhs and handloom families 0.6 lakhs.

During twelfth Five Year plan should be to develop a strong, competitive and vibrant sector in order to provide sustainable employment to the weavers and ancillary workers, particularly belonging to the disadvantaged section of the population and to ensure faster, more inclusive growth of the sector. In line with the vision, the focus of action by the government should on strengthening the raw material delivery systems, achieving universal financial inclusion of weavers/ancillary workers, professionalizing the existing institutions with emphasis on strengthened marketing & brand building initiatives, promoting weaver welfare programs, restructuring the cluster development approach and establishing robust monitoring and evaluation systems. The thrust should also be on introduction and Intensification of partnerships with the private sector for greater efficiency and faster growth. Further, design and product diversity, including development of niche

products, should be emphasized to enable handloom goods to gain a competitive edge and be able to respond to rapidly changing consumer trends. In order to achieve these objectives, it is recommended that the existing programs and, in addition, some new initiative may be introduced.

Therefore, formation of co-operative makes the weaver stronger to face all the problems of industrial environment and enable to attain a success. A co-operative organization directly serves its members and them to meet there basic needs the co-operatives give on opportunity for the weaver, with the benefit of large scale management and organizations. A co-operative society is organized with the primary motive of providing service to its members. Therefore, co-operative line of organization is suitable to handloom weavers to overcome their problems and thereby achieve upliftment in their standards.

#### CONCLUSION

Handloom is the one of the oldest industry in India. Handloom industry is play key role in the economic development of the country. Providing employment to 43.32 lakhs in this papers has cover Growth & Progress Or handloom industry in India during the first five year plan to 12<sup>th</sup> five year plan.

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## GENDER INCLUSIVITY IN IT-BPM SECTOR

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## **ABSTRACT**

Information Technology has become the flagship industry underlying India's recent presence on the global stage. It is also in the spotlight worldwide due to the relatively high and increasing numbers of women in IT in India in comparison to the small and falling numbers of women in this sector in the Western world. Women inclusivity efforts motivated women to join the IT sector without fear and enables them to build confidence. Gender inclusion which brings diversity in the workplace needs to be sustainable and this is a challenge faced by several companies. As of now, only 18 per cent of women in the IT industry are employed at management level - a figure that needs to be increased. We need to appreciate the diversity dividend, so it's really crucial to make that transition and increase the women workforce across the corporate ladder. Around 60 per cent of university graduates are women, 46 per cent of internet users are women," said Suresh Narayanan, chairman and managing director at Nestle India Limited, speaking at the summit. When women become part of the workforce it requires out-of-the box thinking to factor in parameters of safety and security. With this, it becomes imperative for companies to bring in gender-neutral mentoring and tackle bias to strengthen the talent fabric of the company. This study aims to understand the constraints faced by women employees in the workplace and to determine the impact of women inclusivity in jobs in IT—BPM sector.

## **KEYWORDS**

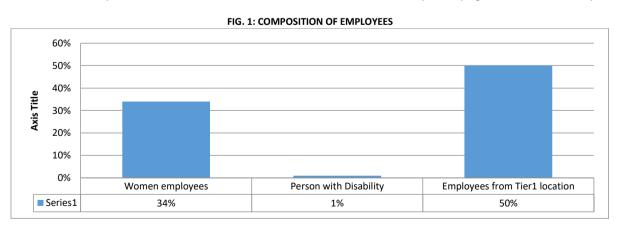
inclusivity, attrition, impact, reasons, efforts.

## **INTRODUCTION**

he industry is increasingly turning women centric, with women constituting 51 per cent of entry level hiring, and having a 50 per cent higher chance of getting IT-BPM job offers. The study was aimed at understanding the role of women in the sector, and help companies formulate practices which can further accelerate inclusion in the industry. According to the industry focus is shifting from inclusivity & diversity to empowerment, stating that women are also moving away from support roles and growing in core business operations through added focus on Over the years, NASSCOM has been working with various stakeholders across the industry to enable organizations to build a work environment that embraces diversity where employees, customers and other stakeholders thrive and succeed. NASSCOM has been instrumental in creating platforms of knowledge exchange across various forms of inclusion and across different cultural context for companies to share and learn best practices. The organization is also working with the government and the society to create a legal and commercial framework for support the same. Gender equality has been established at entry levels, women still constitute a far lower share of CXO roles; the trend of women resigning at a higher rate than men as their personal priorities change is hampering this growth.

## **COMPOSITION OF EMPLOYEES IN IT-BPM INDUSTRY**

Information technology-business process management (IT-BPM) industry employs around 3.7 million people and generates indirect employment for more than 10 million employees. This makes it the largest private employer in India. The industry, which is fast growing, enjoys worldwide demand for its services. In FY2016, it clocked an estimated revenue of 143 billion USD. This in turn has given rise to challenging job opportunities as well as roles, and has made the industry an attractive place for millennials and young minds, who view the sector as a viable career option, irrespective of gender, disability and location. The average age of the workforce within the industry stands at 27 years. It thus emerges as a leading sector in terms of employing the millennial workforce (defined roughly as those born between the early 1980s and the mid-1990s, and for whom digital is a way of life). The industry is a melting pot of different cultures, nationalities and geographies in India. Today, around 50% of its employees hail from Tier I locations in India. Further, it employs foreign nationals from over 100 countries (a total of 1,70,000 foreign nationals), and over 40% of the headcount of global MNCs in India. While a majority of its hires (approximately 50%) are graduates (excluding engineers), the sector employs a diverse mix in terms of skills and knowledge, with a fair share of engineering graduates (32%) and postgraduates (13%), and over 2,50,000 digital specialists and super specialists in the area of social media, mobility, analytics, cloud (SMAC). Today, women constitute 34% of the IT-BPM workforce (i.e. over 1.3 million women employees)—an increase of around 1.8 times since FY2009. Nearly 10% of these women are in senior management roles (approximately 1% in the C-suite). Further, around 28% of the women employees in the sector are primary breadwinners, thereby indicating the changing trend of women's employment and inclusion in the sector. The ITBPM sector is one of the frontrunners in driving practices for the incl



## **REVIEW OF LITERATURE**

Shanker (2008) in the study on gender relations in IT companies in Bangalore revealed that there is a increasing trend of women employees joining the IT sector is due to the various influencing factors like lucrative job options, higher salary, flexible work options. He attributes that greater representation of women in the workforce to comparatively high salaries, easy international mobility and gender neutral policy based on knowledge-centric skills possession. Varma (2002a) asserts that IT sector still remains a preferred choice among many fresh technology graduates for obvious reasons of clear career choices, best salary offered in the industry, rewarding career, international exposure and experience and perfect work ambience and above all intellectually stimulating work opportunities. Tank

and Khuperkar (2009) explored different perspectives to gender equality in India, such as mindset, policies and gender equality drawing similarities and highlighted changes in the working environment in private sector and public sector firms. The overall growth of the society can be enabled only if there is equal emphasis paid to gender equality policies and what the society stands to lose by not providing equal opportunity to everyone and several roadblocks were identified to put them in place. Patel & Parmentier (2005), in their study on the traditional gender roles in the IT sector discussed the issues of gender equality in the IT industry. They emphasize that the Western paradigm of development and modernization suggests that as rational processes and bureaucratic functions overtake traditional forms of social organization, gender inequities will disappear, along with other forms of social closure based on differentiation such as religion and ethnicity. They maintain that the participation of women in IT continues to be influenced by traditional gender roles. He argues that in spite of attaining some of the highest levels of education in Indian society, such women are still associated with traits that include being secondary, invisible, reproductive and unpaid – in general, they are assumed to take the role of a follower. The study of Clark and Sekher (2007) has drawn inference that flexibile labour market in this high tech sector improves women employees" financial autonomy, greater mobility and their larger social acceptance in male dominated society. Like Clark et al. Shanker"s study (2008) asserts that IT industry is the destination of the "privileged"- young, educated, urban and upper caste with middle class family background- constitute the majority of the workforce. She further observes that women professionals have enhanced their social status in terms of having economic capital (high income, foreign travels), social capital (role model and greater prospects of marriage) and symbolic capital (presti

## **OBJECTIVES**

- 1. To understand the constraints faced by women employees in the workplace.
- 2. To determine the impact of women inclusivity in jobs.

#### **METHODOLOGY**

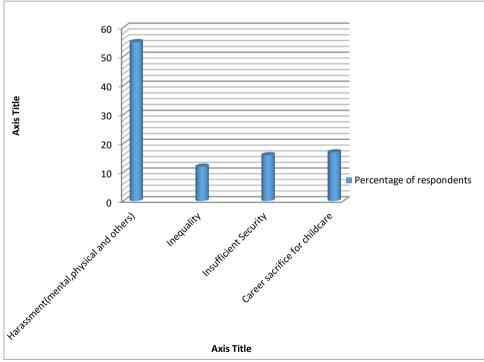
A survey was conducted among 100 women IT workers at Technopark by usind random sampling method. 10 female employees from 10 companies were selected using random sampling, by making a total of 100 respondents. Questionnaire is used for collection of primary data which is circulated via hard copy and Google forms

## PROBLEMS FACED BY WOMEN IN IT INDUSTRY

#### TARIF 1

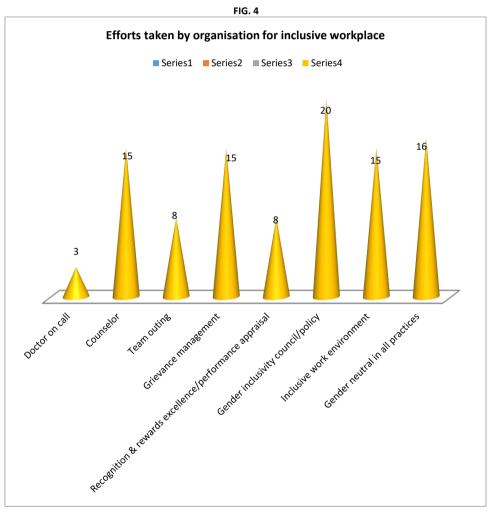
Reasons	Percentage of respondents		
Harassment (mental, physical and others)	55		
Inequality	12		
Insufficient Security	16		
Career sacrifice for childcare	17		





## IMPACT OF WOMEN INCLUSIVITY ON JOBS





## **FINDINGS**

The major problems faced by the women in ITES sector are described. The impact of gender inclusivity and the efforts taken by organization for inclusive workplace are analysed. 55% are of the opinion that they face many kinds of harassment at workplace like mental, physical, sexual etc. 12% suffer from inequality at workplace. 16% opines insufficient security at work place. 17% of respondents sacrifice their jobs for child care. As the leave availability for child care is very less they are forced to quit jobs for caring their child. The positive impact of the efforts around gender inclusivity have had on the organisations that participated in the study. 7% have opined to build a professionally oriented organization due to gender inclusivity. 20% opined to have higher employee productivity and profitability. 15% on customer satisfaction and value creation. 6% opined about ethical business practices. 7% on building an employer brand. 20% opined to have reduced attrition. 25% mentioned Enhance the organisation's creativity, productivity, and ability to manage change.

## **SUGGESTIONS**

Some of the suggestions to build gender inclusivity are strong security requirements for women staff who work late and long hours. Strong emphasis on teamwork, irrespective of gender. Cross-cultural exposure. Aggressive and inclusive gender inclusivity policy that is proactive and stems attrition due to the need for a large

pool of skilled talent. The IT industry has a greater pool of women in the workforce, a more global mindset and a better access to technology and information. Greater need to balance work environment and culture. Challenge posed by the recruitment pool, in that there are fewer skilled women available to recruit from, due to the need for technical skills required by the IT sector. Long work schedule that requires policies to help women overcome and balance social and family obligations.

## CONCLUSION

It is seen that women constitute a sizeable no. of workforce in IT. However, they are not representative of all women in the society. Access to IT is restricted to a select group of women. They are a select group of women who belong to urban background with high socioeconomic status. Implementation of gender inclusivity policies will go a long way in tapping more women workers and reduce attrition rates. As diversity plays a role in business transformation, companies across verticals should leverage technology to create a flexible gender-conducive working environment. Connectivity and technology are dimensions required to ensure gender inclusion. For outcome-based results, women employees should have the option of working in the virtual world, whose operations happen through algorithms and artificial intelligence. The efforts of the companies and stakeholders have been a contributing factor in achieving the growth in the number of women in India's IT sector. Furthermore, specific HR policies and practices such as conveyance, flexible working hours, parental leave, anti-harassment, healthcare, and an emphasis on recognizing and supporting women's needs have led to the positive trend.

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## **E-COMMERCE IN INDIAN CONTEXT: A SWOT ANALYSIS**

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## **ABSTRACT**

E-commerce is considered as everything that contains an online transaction. E-commerce delivers various advantages to the consumers i.e. variety of products, lower price, saves time etc. e- commerce can be classified as S E-Merchandise, E-Finance. Doing business using latest technology and equipment's like telephone, mobile, fax, e-payment, money transfer systems, Internet. This research paper focus on SWOT Analysis of E-commerce in Indian oriented which will consist of strengths, weaknesses, opportunities and threats faced by e-commerce in current scenarios in India. India is an emerging economy and how e-commerce had played a significant role in the growth of the businesses and overall economic development.

### **KEYWORDS**

E-commerce, Emerging Trends, India, Internet Marketing, SWOT.

#### INTRODUCTION

-commerce means buying and selling of goods and services through the electronic media & internet. The quick and speedy growth of e-commerce in India provides convenience, choice and payment modes to the consumers with the help of internet the vendor or merchant directly sells products or services to the customer and allows payment trough debit card, credit card or electronic fund transfer payments. The growth of E-commerce business in India is due to wide range of product with minimum price wide range of suppliers & customers. In this Present era every business organization want to join online business due to increasing numbers of internet users in India.

#### DEFINITION

The process of buying & selling of products & services by businesses & customer's through on electronic medium, without using any paper documents. E-commerce is the process of buying & selling of products online i.e. internet, any transaction that is completed through electronic measures can be considered e-commerce. Waghmare G.T. (2012) has defined the following types of e-commerce:

#### (i) B2B E-Commerce (CISCO)

Companies doing business with each other example manufacturers to distributors and wholesalers to retailers. Pricing is based on quantity of order and is often negotiable.

## (ii) B2C E-Commerce (AMAZON)

Businesses selling to the public

#### (iii) C2C E-Commerce

E Bay's auction service is a great example of where customer-to customer transactions take place every day.

## **OBJECTIVES OF STUDY**

The objectives of present study are:

- 1. To find out the key drivers in Indian E-Commerce.
- SWOT analysis of E-Commerce in India.

## **RESEARCH METHODOLOGY**

The present paper is purely conceptual in nature and based on a review of relevant literature from the past i.e. various books, journals, research papers and reports. The study focuses on data collected from various books, National & international Journals, publications from various websites which focused on various aspects of E Commerce.

## **E-COMMERCE PROCESS**

As we know that a company and a customer browses through internet to get his/her required information about the product and make comparison with other products in terms of price, features. When he/she is completely happy and satisfied then he/she places an order for the product and for this purpose he/she chooses online transaction option and make online payment via debit, credit cards, net banking after successfully make payment the order will be delivered very soon.

## **KEY DRIVERS OF INDIAN E-COMMERCE**

- Introduce 4G across the Nation and large percentage of population subscribed to broadband Internet.
- Increase in percentage of Smartphone users, soon to be world's second largest Smartphone user base.
- Availability of product range as compared to brick and mortar retailers.
- Competitive prices as compared to brick and mortar retail driven by disintermediation and decrease inventory as well as real estate costs.
- Increased usage of online classified sites, with more consumers buying and selling second-hand goods
- Evolution of Million-Dollar startups like Jabong.com, Saavn, Makemytrip, Bookmyshow, Zomato Flipkart, Snapdeal etc.

## **SWOT ANALYSIS OF E-COMMERCE**

SWOT analysis is about to focus on various aspects of e-commerce emerged in Indian i.e., focusing on strength, weaknesses opportunities and threats. **STRENGTHS** 

No Boundary

E-commerce can deal worldwide as no specific boundary is required.

Convenience and Save Time

It saves time and provide convenience.

• No time constraints

It can be used anywhere any time as there is no time constraints.

• Price and products comparison

It provides platform to the consumers to compare price and products features very rapidly and easily.

Cost effective

Logistical problems are reduced and that makes a small industry on a par with large industry

- Direct communication with consumer
- Improved customer interface:

Get immediate feedback from customers.

Information Sharing

Quickly share the information between merchants and customers

- Reduce transaction cost
- Easy arrangement of products

Products can be arranged in the shelves within minutes. With online store it is quite easy.

Quick buving procedure

E-commerce provide quick and fast services. Absence of middleman and intermediaries make fast and quick services.

No physical set up of the company

Doing e-business is cost effective because no physical set up is required for that.

Easy transactions

Financial transactions through electronic fund transfer are very fast and can be done from any part of the Globe.

Niche Products

Niche products are also sold on the internet even for smaller markets

Low operating cost

To start e commerce business require low investment and staff.

Own Online payment gateway solution

#### WEAKNESSES

Security

Customers have always concerned about the security while making online payments through debit and credit cards

Fake websites

Due to Fake websites customers can lose the faith and trust towards online shopping.

Fraud

Customers always feel fear in their minds about misuse of financial and personal data.

Absence of bargaining

Lack of bargaining as it is not possible in case of online shopping.

Long delivery timing

One can have to wait for days or weeks to get delivery of the order.

Limitation of products

Availability of products are limited.

Lack of personal services

Physical products can be available but absence in personal services which are intangible.

More shipping cost

If the products cost generally below five hundred consumers have to bear shipping cost.

Limited exposure

People have no exposure to e commerce where internet is not accessible.

• Customer's satisfaction

As there is no face to face interaction between customer and the seller so there is no scope of convincing the buyer. Many times customers prefer to buy the product by reaching personally to the market rather than purchasing through internet.

• Secretive and Political Culture.

While recruiting human resources in the organization Secretive and political culture is followed which created problems in the organization.

• Focus on expanding customer base rather than pulling profits

Excessively focusing on expanding customer base rather than pulling profits in the process having cash burn.

## **OPPORTUNITIES**

Changing trends

More and more People are using online shopping due to convenience, comfort and low price and even people can made online payment from any part of the globe. New generation prefer to buy products online.

New technologies

The percentage of internet users is increasing day by day and people feel comfort to shop online.

Global expansion

E-commerce can be operated from any part of the world and even anytime.

• High availability (24/7 a week)

People can use e commerce any time anywhere.

Business growth

The growth of E-business has wide scope.

Cut down on local competition

Online customer services is a competitive advantage for the company.

Advertising

Advertising in case of e commerce business is cost effective as compare to traditional system.

Online fashion and apparel business

Profit margin are higher Venture into online apparel and fashion business, where the gross margins are higher.

• Growth in online retail sector in India.

India has huge growth opportunity for retail sectors.

## THREATS

Competitors

As large numbers of companies entering in the business of e commerce can give rise to Competition.

Changes in environment, law and regulations

Due to Change in trends, fashion can indeed distress E-Commerce and e commerce also affect by change in law and regulations.

Innovation

Customers are attractive towards innovative products. Innovation can be in the form of product, place, and promotion.

Privacy concerns

Fears that information can be misused lead to spam e mail or identity fraud.

Lack of interaction

There is lack of interaction between customer and the seller in case of e commerce. That's why there is no scope of bargaining.

Fraud

To operate e -commerce using unfair means can damage the trust and faith of people.

## **CONCLUSION**

As we see the change in the pattern of buying and selling of products and services in India due to the rapid development of E- commerce. The future of shopping is E-commerce. E-Commerce reduced the gap between manufacturer and consumer. There is a vast scope of E-Commerce in India due to the large population base and only nineteen percent people using internet for selling & buying goods & services so remaining percentage we can considered that we having scope in Indian Market. Due to weak cyber security law in India people have fear in their minds towards purchasing online. There is weak Cyber security Law in India that is why Indian People are facing challenges toward e-commerce. The future of e-commerce in India would be bright in the upcoming years if all essential factors would be implemented, by establishing cyber & have their benefits as per person wish. The role of government is to provide a legal framework for e-commerce so that while domestic & international trade are allowed to expand their horizons, basic right such as privacy, intellectual property, prevention of fraud, consumer protection etc. are all taken care of. The expansion of e-commerce has been developed in rural as well as urban area in reign able cost for consumption, because of that more people are getting linked with e-commerce & the ratio of that is getting increase day by day.

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