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The vision of the journals is to provide an academic platform to scholars all over the world to publish their novel, original, empirical and high quality research work. It propose to encourage research relating to latest trends and practices in international business, finance, banking, service marketing, human resource management, corporate governance, social responsibility and emerging paradigms in allied areas of management. It intends to reach the researcher's with plethora of knowledge to generate a pool of research content and propose problem solving models to address the current and emerging issues at the national and international level. Further, it aims to share and disseminate the empirical research findings with academia, industry, policy makers, and consultants with an approach to incorporate the research recommendations for the benefit of one and all.

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#### DEPARTMENT OF ECONOMICS

UGC Sponsored  
Two-Day National Conference on  
**"INCLUSIVE GROWTH AND  
SUSTAINABLE DEVELOPMENT"**

Date: 10<sup>th</sup> & 11<sup>th</sup> January 2018





**NATIONAL CONFERENCE ON  
INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT**

**10-11 JANUARY 2018**

**AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION  
FOR WOMEN, COIMBATORE-43, TN, INDIA**

**MESSAGE**

Dear My Friends,

At the outset, I thank the Organizers and the Avinashilingam University for giving me this great opportunity. I am extremely happy to take part in this National Conference on **INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT**, organized by the Department of Economics of this esteemed Institution, sponsored by the UGC.

Hope this Conference will facilitate for a detailed deliberation by sharing and exchanging various academic and field experiences for the betterment of the Scientific and Social Community, towards enhancement of the subject knowledge and gaining a wide range of field exposure as well.

Hope this will also help the students and research scholars to find new strategies to extend their boundaries of knowledge in social science which will surely facilitate for an interaction between Education and Industry, which is the most need of the hour!

From the Pyramids of Egypt to the International Space Stations, we have always faced the challenges of the future with advancing civilization and building our quality of life! Today, the World is undergoing vast changes with the technological revolution, population explosion, climate change, environmental concerns and many more.

Engineering is all about our community service, development and improvement in planning, design, construction and operation of facilities essential to modern life, ranging from transit systems to offshore structures to space stations.

Engineers are problem solvers, meeting the challenges of pollution, traffic congestion, water supply, energy needs, urban development, community planning, etc. We have to perform a vital role in linking the themes of space, energy and environment towards improving the quality of life in the 21st century.

As the world population grows and global standards of living rise, there are increasing demands on the world's resources and the capacity to assimilate the wastes as well. We are tasked with accommodating the needs of increasing numbers of people and improving their living conditions. Thus, we are at the forefront of making decisions that will have long-term implications for our Mother Planet.

Given the finite capacity of the earth, it is recognized that we must be trained to make decisions in such a way that our environment is preserved, social justice is promoted and the needs of all people are fulfilled through the Global Economy.

We all know that Sustainable Engineering is the process of designing or operating the Systems that do not compromise the Natural Environment. Further, the Sustainable Society is the one that meets the needs of the present, without sacrificing the ability of Future generations to meet their own needs.

As such, all our practices should meet the human needs for Natural Resources, Industrial Products, Energy, Food, Transportation, Shelter, and effective Waste Management, while conserving and protecting Environmental Quality and the Natural Resource Base, which are essential for future development.

Problems related to development and planning affect Rural and Urban areas which prevail in all the Regions of the World. Accelerated urbanization has resulted in deterioration of the environment and loss of quality of life to certain extent. Urban development can also aggravate problems faced by Rural Areas, such as Forests, Mountain Regions and Coastal Areas, among many others.

Interaction between different Regions and developing new methodologies and innovative techniques for monitoring, planning and implementation of novel strategies can provide solutions towards environmental pollution and non-sustainable use of available resources.

Energy saving and eco-friendly building approaches have become an important part of modern development, which places special emphasis on resource optimization. Planning has a key role to play in ensuring that these solutions as well as new materials and processes are incorporated in the most efficient manner.

Sustainability has now been very critical for us and lack of understanding the fundamentals of sustainable material brings obstacles in implementing the concepts of sustainability. Building industry, being a leading contributor of greenhouse gases, has been largely occupied by the construction materials, which are one of the prime areas that need sustainability in an integrated manner. Concrete and steel structures in addition to Water Resources and Solid Waste are being managed most commonly by us.

More focus has to be made towards Green Engineering with special reference to Material Management, Waste reduction, Pollution prevention and Production enhancement by way of employing innovative initiatives. Other thrust areas such as Sustainable & Resilient Transportation System, Renewable Energy Supply, Urban Underground Infrastructure Development, Green Infrastructure Design, Energy-Water-Environment Nexus, etc. should also be focused with more and more research initiatives.

At present, Frugal Engineering or Frugal Innovation gains a significant momentum in innovating and generating significantly cost-effective products by reducing the use of critical and scarce Resources.

It has become apparent that Planners, Environmentalists, Architects, Engineers, Policy Makers and Economists have to work together integrally in order to ensure that planning and development can meet our present needs without compromising the ability of future generations. Hope this National Conference will pave a new way to bring out the wide range of intellectual interests and talents from the future Economic Experts, encompassing the emerging

socio economic advancements. Hope this Event signifies the beginning of a great Journey within, opening an entirely new World outside!

On this beautiful day, let us take a firm stand to protect the Nature in everyway we can. Let us pledge to make our Mother Earth a better place to live in. Let us become the creators of a better tomorrow! Let us give our children and grandchildren a greener, cooler and better Earth to live in!

On this memorable day, I extend my Best Wishes and appreciation to the Avinashilingam Institute for offering value based quality education under vibrant learning environment and for organizing various frontline activities. Congrats and Best Wishes to all the social minded Economists, who will surely become the most dynamic and successful Change Agents of our Earth Planet!

I wish this elite conference all success! With Best Regards,

**Er. S.SIVALINGAM,**

Deputy Chief Engineer,

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**MESSAGE FROM THE EDITORIAL DESK**

Development theory has come a long way over the last century. It began with focus on economic growth and development, and eventually has reached a stage where contemporary policy emphasis is no longer only on eradicating absolute deprivation of income but on eradicating deprivation in its multiple dimensions. Researchers, governments and academia are looking at more holistic patterns of living than merely growth. The multiple dimensions include both economic and non-economic aspects, which is in appreciation of the UNDP advocacy on promoting human development. Ever since the UNDP started advocating 'Inclusive Growth', developing countries in particular have set it as an avowed goal of development policies. Though the concept is not explicitly defined, there is an implicit belief that the objective is to pursue a strategy that would provide for the inclusion of the socially and economically marginalized sections in the mainstream economy and its growth process. This conference tries to bring academicians, policy makers and researchers to a platform to discuss and probe into the different facets of inclusive growth in promoting sustainable development. Department of Economics takes this up for India in particular under the "Make in India" mission of Hon. Prime Minister of India.

**ABOUT THE INSTITUTE**

Founded by the illustrious educationist and veteran freedom fighter Dr.T.S.AvinashilingamAyya and nurtured by Dr.Rajammal P. Devdas the world renowned nutritionists and educationalist, the institute, with its motto 'seek and ye shall find' aims to groom young women to become responsible citizens and usher new innovations for the advancement of the society. It has also promoted communal harmony in the multi-religious and multi-cultural reality of India. The institution stresses on self-development and empowerment of women through scientific and value based education to enable them to lead a purposeful life.

The department of Economics started its undergraduate course in the year 1958 and by 1975 was elevated to offer Masters Programme and by 1988 it became full-fledged research department. The department has a unique syllabus which bridges gap between the traditional and modernity by incorporating recent developments in the curriculum. Besides teaching and outreach programmes the department concentrates on research and has completed 7 major projects and two minor projects funded by UGC, CSO, MSSRF and ICSSR. With this enriching background the department has been sanctioned the Ambedkar Study Centre by the UGC, under the XI plan. Through different programmes and activities, the Department has been making constant efforts to raise academic, intellectual and scholastic standards. Various workshops, seminars and Conferences have been organized from time to time which have strengthened both the teaching and research activities of the department.

The editorial Committee places on record its profound thanks to **Chancellor, Padma Shri Dr. P. R. Krishnakumar, Vice-Chancellor, Dr.PremavathyVijayan, Registrar, Dr. S.Kowsalya** for extending their support and guidance for the conduct of the Conference and

publishing the articles in the TRANS Asian Research Journals (**UGC approved Journals-Asian Journal of Multidimensional Research (AJMR) and TRANS Asian Journal of Marketing & Management Research (TAJMMR)**). The members convey their gratitude to Dr.P.Ambigadevi, Dean, Faculty of Humanities, Professor of Economics for her valuable suggestions in bringing out the publications. The editors also thanks the editors of **TRANS Asian Research Journals** for their full support extended in getting the articles published in their journals on time. Last but not the least the editors' place on record our sincere thanks to all the **Authors and Department Faculty Members** for their valuable support.

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**DR.MALARVIZHI.V**

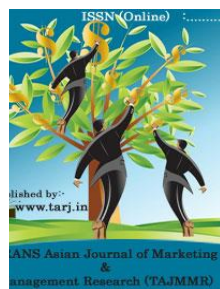
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# TRANS Asian Journal of Marketing & Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

**UGC APPROVED JOURNAL**



## SPECIAL ISSUE ON

**‘NATIONAL CONFERENCE ON INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT’**

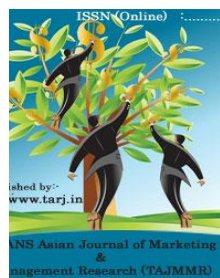
**10-11 JANUARY 2018**

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WOMEN, COIMBATORE-43, TN, INDIA**

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## AN OVERVIEW OF BRICS ECONOMIES

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### ABSTRACT

*BRICS countries includes Asia, Africa, Europe and America and are all members of the G20. Together, they account for 26.46% of world land area, 42.58% of world population, 13.24% of World Bank voting power and 14.91% of IMF quota shares. According to IMF's estimates, BRICS countries generated 22.53% of the world GDP in 2015 and have contributed more than 50% of world economic growth during the last 10 years. The declaration of Xiamen Summit 2017 reaffirmed that BRICS countries continue to play an important role as engines of global growth. Hence this study aims at analyzing the GDP growth of BRICS Economies BRICS is made up of China, Brazil, Russia, India and South Africa. The first BRIC Foreign Ministers' Meeting was held in 2006 among China, Brazil, Russia and India on the margins of the general debate of the 61st session of the United Nations General Assembly, which drew the prelude for BRIC cooperation. In 2009, the first BRIC Summit was held in Yekaterinburg, Russia. Since then, the Summit has become an annual event. To date, 9 Summits have been held. In December 2010, China, as the Chair, invited South Africa to join BRIC and attend the Summit in Sanya, China. BRIC officially enlarged to include 5 countries and the acronym changed into BRICS.*

**KEYWORDS:** Trade, Finance, Business, Agriculture, Education, Culture, Think Tanks,

## INTRODUCTION

BRICS cooperation has continued to consolidate its foundation and expanded to more areas. It is now a multi-level process led by the Summit, buttressed by meetings of the national Security Advisors, Foreign Ministers and other ministerial meetings, and enriched by pragmatic cooperation in dozens of areas such as economy, trade, finance, business, agriculture, education, health, science and technology, culture, think tanks, and friendship cities. Cooperation mechanisms such as the New Development Bank, Contingent Reserve Arrangement, Business Council and Think Tank Council have been established. Pragmatic cooperation has gone to greater depth to yield more fruitful results and exerted important influence globally.

From the formation BRICS has grown into an important platform for cooperation among emerging markets and developing countries. BRICS countries come from Asia, Africa, Europe and America and are all members of the G20. Together, they account for 26.46% of world land area, 42.58% of world population, 13.24% of World Bank voting power and 14.91% of IMF quota shares. According to IMF's estimates, BRICS countries generated 22.53% of the world GDP in 2015 and have contributed more than 50% of world economic growth during the last 10 years. With this background the present study aims to analyse the pattern of GDP growth rate of Brazil, Russia, India, China and South Africa from 2001-17

## METHODOLOGY

The study takes into account the data on GDP of BRICS Economies collected from World Bank and International Monetary Fund websites for the period 2001-2017. To find the share of individual countries' GDP in World GDP, Percentage method was used.

## FINDINGS

The observation of the data on GDP from Table No.1 clearly shows that among the five countries China has been growing at a faster pace. Brazil, India and Russia have registered almost similar patterns of growth though not as good as China. Among the five, South Africa seemed to grow very slowly. While the other four economies jumped to Trillions, South Africa remained in billions. The impact of financial crisis of 2008 was felt only in Brazil and Russia which can be evidenced with a contraction of GDP growth rate.

Prior to the financial crisis, the global economy was going through a change. The erstwhile engine of global growth, the USA, was weakening and the new growth poles were emerging. BRIC was one of emerging growth poles that caught the imagination of the world. With a very large pool of physical and human resources and rapidly increasing share in global GDP growth, this group of heterogeneous economies were showing a great potential to replace US as an engine of global economic growth. This possibility was further vindicated during the financial crisis when BRICs managed to grow at a decent rate. Though, like other economies, this group also suffered from the indirect impact of financial crisis, the severity of impact felt in this block was much lesser as compared to many developed and developing economies.



**Growth Rate of GDP of BRICS Economies for the period 2001-17**

Year	Brazil GDP( US \$)	Growth Rate	Russia GDP(US \$)	Growth Rate	India GDP(US \$)	Growth Rate	China GDP (US \$)	Growth Rate	South Africa GDP (US \$)	Growth Rate
2001	559.373	1.31	306.603	5.092	478.965	4.824	1.339	8.34	121.516	2.735
2002	507.963	3.053	345.11	4.744	508.069	3.804	1.471	9.131	115.482	3.668
2003	558.32	1.141	430.348	7.296	558.32	7.86	1.66	10.036	175.257	2.949
2004	669.316	5.76	591.017	7.176	699.689	7.923	1.955	10.111	228.594	4.555
2005	891.63	3.202	764.017	6.376	808.901	9.285	2.286	11.396	257.773	5.277
2006	1.108	3.962	989.931	8.153	920.317	9.264	2.752	12.719	271.638	5.604
2007	1.397	6.07	1.3	8.535	1.201	9.801	3.552	14.231	299.416	5.36
2008	1.696	5.094	1.661	5.248	1.187	3.891	4.598	9.654	286.77	3.191
2009	1.667	-0.126	1.223	-7.821	1.324	8.48	5.11	9.4	295.936	-1.538
2010	2.209	7.528	1.525	4.504	1.667	10.26	6.101	10.636	375.349	3.04
2011	2.616	3.974	2.032	4.264	1.823	6.638	7.573	9.536	416.419	3.284
2012	2.465	1.921	2.17	3.518	1.828	5.456	8.561	7.856	396.328	2.213
2013	2.473	3.005	2.231	1.279	1.857	6.386	9.607	7.758	366.624	2.489
2014	2.456	0.504	2.064	0.731	2.035	7.505	10.482	7.298	350.851	1.7
2015	1.804	-3.769	1.366	-2.828	2.112	8.01	11.065	6.9	317.407	1.299
2016	1.796	-3.595	1.283	-0.225	2.264	7.107	11.199	6.7	294.841	0.279
2017	1.954	0.30	1.442	2.50	2.251	5.1	12.362	6.9	288.2	-0.7

**Source: World Bank****Share of BRICS Economies in World GDP(2001-17)**

Year	World GDP	Brazil GDP (US \$)	Share in World GDP in Percentage	Russia GDP (US \$)	Share in World GDP in Percentage	India GDP (US \$)	Share in World GDP in Percentage	China GDP (US \$)	Share in World GDP in Percentage	South Africa GDP (US \$)	Share in World GDP in Percentage
2001	33.336	559.373	1.68	306.603	0.92	478.965	1.44	1.339	4.02	121.516	0.36
2002	34.612	507.963	1.47	345.11	1.00	508.069	1.47	1.471	4.25	115.482	0.33
2003	38.867	558.32	1.44	430.348	1.11	558.32	1.44	1.66	4.27	175.257	0.45
2004	43.771	669.316	1.53	591.017	1.35	699.689	1.60	1.955	4.47	228.594	0.52
2005	47.386	891.63	1.88	764.017	1.61	808.901	1.71	2.286	4.82	257.773	0.54
2006	51.307	1.108	2.16	989.931	1.93	920.317	1.80	2.752	5.36	271.638	0.53
2007	57.793	1.397	2.42	1.3	2.25	1.201	2.08	3.552	6.15	299.416	0.52
2008	63.386	1.696	2.68	1.661	2.62	1.187	1.87	4.598	7.25	286.77	0.45
2009	60.087	1.667	2.77	1.223	2.04	1.324	2.20	5.11	8.50	295.936	0.49
2010	65.906	2.209	3.35	1.525	2.31	1.667	2.23	6.101	9.25	375.349	0.57
2011	73.242	2.616	3.57	2.032	2.77	1.823	2.49	7.573	10.34	416.419	0.57
2012	74.802	2.465	3.30	2.17	2.90	1.828	2.44	8.561	11.44	396.328	0.53
2013	76.925	2.473	3.21	2.231	2.90	1.857	2.41	9.607	12.49	366.624	0.48
2014	78.87	2.456	3.11	2.064	2.62	2.035	2.58	10.482	13.29	350.851	0.44

2015	74.51	1.804	2.42	1.366	1.83	2.112	2.83	11.065	14.85	317.407	0.43
2016	75.544	1.796	2.38	1.283	1.70	2.264	3.00	11.199	14.82	294.841	0.39
2017	77.99	1.954	2.51	1.442	1.85	2.251	2.89	12.362	15.85	288.2	037

**Source: World Bank**

Table No 2 shows the trends in share of Individual economies GDP in World GDP. The data reveals that among the five economies China's share is the highest and also increases steadily from 2001-2017. India and Brazil had almost similar pattern of share in World GDP followed by Russia. South Africa's share was the lowest

Starting with the common features, all BRICs are characterized by big land size, a large population (between 1321 million in China and 143 million in Russia) but lower incomes, wages and productivity than the EU. All BRICs show great personal and regional income differentials nevertheless, a sizeable prosperous middle class is emerging (reaching, for instance, about 300 million persons in China and probably 100 million in Brazil). The role of the state in the BRICs' economies is substantial and their scores with regard to regulatory quality, rule of law, control of corruption and political stability are typically low. BRICs represent important regional economic powers and are also global layers in certain fields (e.g. Brazil in biofuels, Russia in energy supply, India in IT services and China in manufacturing). In the medium term their catching-up process is expected to continue. However, to achieve this growth, the individual BRICs have been pursuing different models of economic development: Brazil followed the model of a domestically oriented, service-driven economy, with a relative large private sector (>80% of GDP) and foreign direct investment playing an important role. On the negative side there are poor infrastructure, high informality, low productivity and little innovation.

Russia, when transforming from a centrally planned economy to a market economy, has liberalized first and 're-centralized' later. Economic development is highly dependent on the extraction and export (price!) of mineral oil and gas.

India's economic development is essentially service-led, supported by exports of services (especially IT-enabled services); manufacturing exports are relatively small and are concentrated on a few sectors only. The share of agriculture in GDP is still very high (16%). After liberalization, starting in 1980, the private sector is currently generating more than 80% of GDP. Rules for FDI have been eased as well, yet the FDI stock is still small. Wages are very low, but the overall education level, particularly with respect to technical qualifications, is very low as well. A major stumbling block to further development is the underdeveloped infrastructure. A new government programme has been launched recently to expand rural infrastructure and to increase funding for education and infrastructure in general.

China refers to its system as a 'socialist market economy,' with markets taking a pivotal role, but public ownership, direct government interference and industrial policy measures representing an integral part of the system. Currently, the private sector is estimated to generate about 65% of

GDP. China's economic development is driven by manufacturing exports and by investments (including infrastructure).

South Africa has undergone a remarkable transformation since its democratic transition in 1994. SA is endowed with abundant mineral and natural resources, and has relatively well-developed financial, energy, and transport sectors, unlike most African countries. It is clearly a continental leader in terms of infrastructure, financial institutions, and outward investment. SA's rich endowment of mineral and natural resources complements Brazil's specialisation in agriculture and raw materials, Russia's position as a major player in the commodity market, India's services-exporting economy, and China's recognition as the 'world's factory'.

Looking at the more recent policies and future development plans of the BRICs, a certain 'convergence' of their development strategies can be observed: More export orientation and state-led industrial policy in Brazil; greater industrial diversification and promotion of investment in Russia; more emphasis on the development of other sectors than services, higher expenditures on infrastructure investment in India; and a gradual switch from export-oriented to more domestic-market oriented growth with less dominance of manufacturing in China. Thus it can be understood that BRICs economies are typically expanding faster than the advanced industrialized countries, including the European Union.

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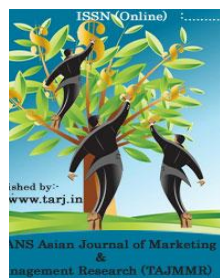
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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## IMPACT OF DEMONETIZATION ON THE INDICES OF BOMBAY STOCK EXCHANGE IN INDIA

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### ABSTRACT

*The demonetisation is the act which involves current form of money in circulations pulled and new currency is introduced by the government of India. Demonetisation in India was announced by Prime Minister Narendra Modi on 8<sup>th</sup> November 2016. After the announcement, the market was affected on the next day and there was a severe cash shortage in the country. This was the most unexpected strategic initiative to nullify 86 percent of India's currency. This study focuses on the impact of demonetisation on five selected indices of BSE for the period from 23<sup>rd</sup> September 2016 to 21<sup>st</sup> December 2016. The study employs event study methodology in examining the effect of demonetisation on selected stock indices surrounding 60 days of announcement and concluded that there is no significant impact on the selected sample indices due to the announcement of demonetisation. There was a severe cash shortage in the country. The act of demonetisation has also impacted on the stock market. Stock market plays a very important role in the economy of the country*

**KEYWORDS:** Stock Market, Indices, Demonetisation



## INTRODUCTION

The demonetisation is the process of replacing the existing currency notes or coins with new currency notes and coins with same denomination or different denomination. It refers to an economic policy where a currency loses its legal tender status as a new one comes into circulation. Demonetisation in India caused a lot of inconvenience to the public. There was a disruption in business activities. There was a severe cash shortage in the country. The act of demonetisation has also impacted on the stock market. Stock market plays a very important role in the economy of the country. The stock market aids in the growth of industry and commerce to a greater extent. Stock market does the basic function of raising the capital for industry and commerce. Indices in the stock market are the depiction of particular portion of the broader sector. Indexes represent the portfolio of the shares of the leading companies in the economy. It is one of the aspects that help to measure the growth of the economy on the basis of different sectors. The Bombay Stock Exchange located in Mumbai, India is the first stock exchange in the Asian continent. It is one of the fastest trading systems in the world. In this study the impact of announcement of demonetisation on major five selected indices of BSE are discussed.

## REVIEW OF LITERATURE

The article entitled **“Impact of Merger and Acquisition on Share price – A Case Study of Pakistan”**, by Iqbal Mahmood et al (2012) evaluated the pre and post-merger effect on company. Banking and Pharmaceuticals industry were chosen as sample for the study. Event study methodology was used to record the impact of the event on the share prices and the results highlighted a positive change in the share price of five companies and there was a negative impact for two companies after the event of Merger and Acquisition.

**“Testing the Semi-Strong Efficiency of Indian Stock Market – A Study on Effect of Union Budget 2012 on Six Select Sectoral Stocks”** by Kutchu and Vishal (2012). The research paper analyses the adjustment of security prices to Budget announcements in a Semi-strong efficiency market using regression-based event study methodology. The study showed that there is a chance to make abnormal returns for the investor with the publicly available information and that the impact of budget seems to be company-specific.

Rajesh Ramkumar and Selvam (2012) in their research work titled **“An Analysis of Market Efficiency in Sectoral Indices: A Study with a Special Reference to the Bombay Stock Exchange in India”**. The study mentioned that the Sectoral Index analysis is a way of measuring the economic growth of a country. The study focuses on examining the market efficiency by using Runs test and Auto-correlation test. The results were like the returns of BSE Automobile Index, BSE Bankex, BSE Capital Goods Index, BSE Health Care Index, BSE Metal Index, BSE PSE Index and BSE Realty Index were significant at 5% level during the period.

**“An Event Study Analysis of Union Budget Announcement on Broad and Sectoral Indices of Indian Stock Market”**, by Deepak and Bhavya (2014). The researcher examined the impact of budget announcement on the performance of Sectoral indices during 1993-2014. The data used in the study are the daily closing values of 23 market indices from Capitaline database. The ADF was applied on the closing price values. In this study, one of the event study

methodology was also adopted with a parametric t-test conducted at 5 percent confidence level for the study periods.

Jurgita Stankeviciene and Simas Akelaitis (2014) in their work titled **“Impact of Public Announcement on Stock Prices: Relation between Values of Stock Prices and the Price Changes in Lithuanian Stock Market”**. The study identifies the relation between public announcements and activities of stock market using the event study abnormal returns tool. The study concludes that there was a negative correlation between the value of stock prices and the price changes caused by the public announcements.

A paperwork titled **“Stock Market Reactions to Announcements of Stock Splits”** by Swati Mittal (2015) conducted a study which included top 100 companies rated by Chartered Financial Analyst Survey 2008 and information efficiency for 10 calendar years from Jan.2004 to Dec.2013 were analyzed and found that the markets reacted positively to the Stock splits announcement showing an AAR of 1.5% on the event date. The window period was 15 days and Event study methodology using Market model was adopted as Research tool.

## DESIGN OF THE STUDY

### a) Statement of the problem

The demonetisation being a major financial event in India has affected the Indian economy on and after Nov 8<sup>th</sup>, 2017. There was a terrible liquidity shortage due to the monetary policy of RBI. There was a lot of transaction drop in the economy and many problems arose in Indian economic conditions. The present study is an attempt to test the impact of demonetisation on five major BSE indices for a period of 30 days before and after the event date of the study.

### b) Need for the Study

The stock market plays an essential role in the economy. It plays the important function of raising finance for the companies through the issue of shares. The stock market supports the growth of industry and commerce in a country to a great extent. The stock market performance and the economic growth of the nation are highly related. The Indices of the stock exchanges facilitate the investors to benchmark the performance of stocks grouped by specific market sectors or industries. As demonetization is an unexpected announcement, its impact on the specified major indices of BSE are analysed to identify its impact.

### c) Objectives of the Study

The specific objectives of the present study are as given below.

1. To study the impact of demonetization on the returns of the selected sample Indices before and after the event date.
2. To analyse whether there is any difference in the reaction of samples indices prior to and post the Event date.
3. To determine the direction of change in the selected indices due to the announcement of demonetisation.
4. To compare the performance of the sample Indices.

**d) Hypothesis of the study**

The following are the hypothesis of the study

**NH<sub>0</sub>:** No Abnormal returns is generated by the sample indices of the BSE on the announcement of demonetisation day or in the pre event period or in the post event period

**NH<sub>1</sub>:** Abnormal returns is generated by the sample indices of the BSE on the announcement of demonetisation day or in the pre event period or in the post event period

**e) Selection of the Sample**

For the purpose of study, five Indices which are listed in the BSE were chosen as Sample Indices. The details of Sample Indices are given in the table.

**TABLE-1**  
**DETAILS OF SAMPLE INDICES LISTED IN THE BSE**

S.No.	Name of the Sector	Name of the Indices
1	Infrastructure	S&P India Infrastructure
2	Manufacturing	S&P India Manufacturing
3	Automobile	S&P BSE Auto
4	Banking	S&P BSE Bankex
5	Fast moving consumer goods	S&P BSE FMCG

**Source:** www.bseindia.com.

**f) Collection of Data**

The data used is secondary data which is the closing prices of the five sample index along with the S&P BSE 500 which is taken as the base. The data was taken for conducting the event study from the Bombay Stock Exchange website (<http://www.bseindia.com/>).

**g) Period of study**

In this study, the Event date is the day on which demonetization of currency was announced which is Nov 8<sup>th</sup>, 2016. The study covers a period of 61 days from September 23<sup>rd</sup>, 2016 to December 21<sup>st</sup>, 2016, which denotes 30 days before and 30 days after the event date. The event date was assigned day T=0. The Study period is 61 days. (T-30, T+30, T=0 which is 30+30+1=61days)

**h) Tools Used for Analysis**

To evaluate the impact of financial event on the five selected sample BSE indices the following tools have been used.

- 1) Descriptive Statistics
- 2) Abnormal Returns (AR) and Average Abnormal Return(AAR)
- 3) T-Test

**I) Descriptive statistics**

Descriptive statistics are statistics which describe and summarize the attributes of collection of data or information in a quantitative manner.

**a) Mean**

The arithmetic mean is the sum of the entire items divided by the number of items in the list. The mean is the most commonly used type of average and is often referred to simply as average. The formula is given below.

$$\bar{X} = (\sum x_i) / N$$

Where,

$\bar{X}$  represents the mean

$\sum$  is the symbol of summation

$x_i$  is the value of items  $x$  and  $i = 1, 2, 3, \dots, n$

$N$  is the total number of samples

**b) Standard Deviation**

The standard deviation (SD) is a common measure of statistical dispersion, measuring how widely the value in a data set is spread. If many data points are close to the mean, then the standard deviation is low and vice versa. It is also the square root of Variance of a data set.

$$\sigma = \sqrt{(\sum (x - \mu)^2 / N)}$$

Where,

$\sigma$  (sigma) is the standard deviation of the entire population

$x$  is each value in the population

$\mu$  is the mean value of population

$N$  is the number of values in the population

**c) Skewness**

The measure of asymmetry is called as measure of skewness. The absolute measure tells the degree of asymmetry which is either positive or negative.

$$\text{Absolute skewness} = (\text{Mean value} - \text{Mode value})$$

If value of mean > value of mode, it means that the distribution is positively skewed and if the value of mean < value of mode it means it is negatively skewed

**d) Kurtosis**

Kurtosis is a Greek word which means bulginess. It refers to the measure of the tailedness or flatness of the distribution of data. The formula for kurtosis is given below.

$$\beta_2 = (\mu_4 / \mu_2^2)$$

where,

$\beta_2$  is kurtosis,  $\mu_2$  indicates the 2<sup>nd</sup> moment,  $\mu_4$  the 4<sup>th</sup> moment.

If value of  $\beta_2$  is equal to 3 for a normal curve, it is Mesokurtic. If value of  $\beta_2 > 3$ , then the curve is more peaked than the normal curve and it is called Leptokurtic. If the value of  $\beta_2 < 3$ , the curve is less peaked than the normal curve and it is called Platykurtic.

## II) Average abnormal returns

The abnormal return is calculated to know the magnitude of changes. The daily returns were calculated for both market index and sample indices by using the following equation.

$$R_{i,t} = (P_t - P_{t-1})/P_{t-1}$$

Where,

$R_{i,t}$  = Returns of security on time t

$P_t$  = Price of the security at time t (closing price)

$P_{t-1}$  = Price of the security at time t-1 (closing price)

Abnormal Returns (AR) is computed using the equation

$$AR_{i,t} = R_{i,t} - R_{m,t}$$

Where,

$AR_{i,t}$  = Abnormal return on security i at time t

$R_{i,t}$  = Actual returns on security i at time t and

$R_{m,t}$  = Actual returns on market index

The Average Abnormal Returns is the mean of the selected sample indices.

## T-test

The T-test is based on T-distribution and is regarded as an ideal test for judging in the significance of a sample mean. It can also be used for judging the significance of the co-efficient of simple and partial correlations. The relevant test statistic is calculated from the sample data and then compared with its probability value based on t-distribution at a specified level of significance concerning degrees of freedom for accepting or rejecting the null hypothesis.

## LIMITATIONS OF THE STUDY

This project suffers from various limitations which are briefed below.

1. The entire study is based on secondary data published in the BSE website so the limitations of the secondary data would have affected the study.
2. The Study is restricted to only five Sample indices of BSE Indices namely, Infrastructure, Manufacturing, Banking, Automobile and FMCG.
3. The Study period is restricted to 61 days.
4. This analysis is useful only for short term decision making as it tests only the immediate short term impact on indices due to a change in the monetary policy of the Indian government.



## ANALYSIS AND INTERPRETATION OF DATA

**TABLE - 2**  
**RESULTS OF DESCRIPTIVE ANALYSIS FOR THE FIVE SAMPLES FOR A PERIOD OF 61**  
**DAYS FROM SEPTEMBER 23<sup>RD</sup> 2016 TO DECEMBER 21<sup>ST</sup> 2016**

Name of the Indices	Mean	Standard Deviation	Skewness	Kurtosis
Pre period (September 23 <sup>rd</sup> , 2016 to November 7 <sup>th</sup> , 2016)				
S&P BSE 500(Base)	-0.0010	0.0088	-0.1784	3.7613
S&P India Infrastructure	0.0001	0.0126	-0.3678	2.9406
S&P India Manufacturing	-0.0017	0.0079	-0.0644	3.5074
S&P BSE Bankex	-0.0012	0.0112	-0.0092	2.8979
S&P BSE Auto	-0.0012	0.0107	0.0914	2.9258
S&P BSE FMCG	-0.0006	0.0074	0.1153	2.9307
Post period(November 9 <sup>th</sup> , 2016 to December 21 <sup>st</sup> , 2016)				
S&P BSE 500(Base)	-0.0021	0.0115	-0.7020	3.4639
S&P India Infrastructure	0.0001	0.0121	-0.1873	3.2491
S&P India Manufacturing	-0.0025	0.0115	-0.8115	3.8047
S&P BSE Bankex	-0.0024	0.0140	0.4784	3.6380
S&P BSE Auto	-0.0035	0.0179	-0.8668	3.7536
S&P BSE FMCG	-0.0032	0.0120	-0.4511	2.7790

**Source: Data collected from [www.bseindia.org](http://www.bseindia.org) and Calculated in Excel.**

The **Table -1** shows the descriptive statistics of the five sample indices for the period of 61 days from September 23<sup>rd</sup>, 2016 to December 21<sup>st</sup>, 2016. The average return of all the indices were negative before and after the event except S&P BSE Infrastructure index. The standard deviation of all the indices in the pre period was less than the standard deviation of the post period except S&P BSE infrastructure index which shows that the risk involved in the pre period was less. In the pre period all the indices were negatively skewed except S&P BSE Auto and S&P BSE FMCG and in the post period all the Indices are negatively skewed except S&P BSE Bankex. In the pre period S&P BSE 500 and S&P BSE Manufacturing are leptokurtic and other indices are platykurtic. In the post period all the indices are leptokurtic except S&P BSE FMCG which is platykurtic.

**TABLE-2**  
**RESULTS OF AVERAGE ABNORMAL RETURNS OF EVENT WINDOW AND**  
**COMPUTED T-VALUES FOR A PERIOD OF 61 DAYS FROM SEPTEMBER 23<sup>RD</sup> 2016**  
**TO DECEMBER 21<sup>ST</sup> 2016**

Days	AAR	AAR T-Test	Days	AAR	AAR T-Test
-30	-0.0014	-0.2515	1	0.0053	0.9216
-29	-0.0026	-0.4604	2	-0.0023	-0.3957
-28	-0.0024	-0.4165	3	0.0051	0.8985
-27	-0.0003	-0.0476	4	0.0048	0.8390
-26	0.0071	1.2343	5	-0.0035	-0.6171
-25	-0.0024	-0.4151	6	0.0045	0.7892
-24	-0.0037	-0.6537	7	-0.0008	-0.1394
-23	-0.0008	-0.1394	8	0.0039	0.6789
-22	0.0005	0.0904	9	-0.0013	-0.2227
-21	0.0006	0.1067	10	-0.0026	-0.4626
-20	0.0029	0.5107	11	-0.0019	-0.3304
-19	-0.0009	-0.1536	12	-0.0096	-1.6755
-18	0.0037	0.6493	13	-0.0003	-0.0520
-17	0.0013	0.2208	14	0.0011	0.1909
-16	0.0021	0.3743	15	-0.0006	-0.1128
-15	-0.0047	-0.8288	16	0.0025	0.4453
-14	-0.0026	-0.4524	17	0.0029	0.5049
-13	0.0003	0.0446	18	0.0053	0.9270
-12	0.0021	0.3654	19	-0.0041	-0.7195
-11	0.0025	0.4331	20	0.0020	0.3537
-10	0.0010	0.1751	21	-0.0010	-0.1766
-9	0.0016	0.2741	22	0.0010	0.1701
-8	0.0006	0.1075	23	0.0011	0.1843
-7	-0.0005	-0.0936	24	0.0023	0.4110
-6	-0.0022	-0.3868	25	0.0010	0.1703
-5	0.0008	0.1394	26	-0.0001	-0.0227
-4	0.0052	0.9071	27	-0.0008	-0.1418
-3	0.0031	0.5492	28	0.0021	0.3646
-2	0.0077	1.3528	29	0.0006	0.0990
-1	-0.0005	-0.0920	30	0.0005	0.0892
0	0.0009	0.1584			

**Source: Data collected from [www.bseindia.org](http://www.bseindia.org) and Calculated in Excel.**

The **Table-2** depicts the Average Abnormal Returns (AAR) for each day of the event window for the sample indices of BSE and the corresponding computed values of T-statistics. It is observed that the AARs of almost all days of the event window are very close to zero. In the pre event period the AAR range from a lowest value of -0.0047 on the day -15 to the highest value of 0.0077 on the day -2. The day of on the announcement day the AAR is 0.0009. In the post event period the AAR range from a lowest value of -0.0096 on the day 12 to the highest value of 0.0053 on the day 1. The computed T-values of all ARR are lower than 2.13, the critical value of T-statistics at 5 percent level of significance for 4 degree of freedom and also lower than 3.75, the critical T-value at 1 percent level of significance for the same degree of freedom. This shows that the statistically insignificant average abnormal return being generated by the sample BSE indices in the event window and hence the null hypothesis of no abnormal return is generated by the sample indices of the BSE on the announcement of demonetisation day or in the pre event period or in the post event period is accepted for the during the study periods.

### FINDINGS OF THE STUDY

The following are the findings of the study.

- The average returns of all the indices were negative before and after the event except S&P BSE Infrastructure index.
- The standard deviation of all the indices in the pre period was less than the standard deviation of the post period except S&P BSE infrastructure index which shows that the risk involved in the pre period was less.
- In the pre period all the indices were negatively skewed except S&P BSE Auto and S&P BSE FMCG and in the post period all the Indices are negatively skewed except S&P BSE Bankex.
- In the pre period S&P BSE 500 and S&P BSE Manufacturing are leptokurtic and other indices are platykurtic. In the post period all the indices are leptokurtic except S&P BSE FMCG which is platykurtic.
- The study statistically insignificant average abnormal returns being generated by the sample BSE indices during the event window periods.

### SUGGESTIONS OF THE STUDY

The following are the suggestions of the study.

- The impact is short-term and the situation can be overcome within a reasonable span of time.
- If the prices fall down steadily due to the impact of an announcement, it is the time to take advantage of the Market by the investors to take buying decision.
- The Speculators and arbitrageurs will reap a good harvest if they do Portfolio analysis for investment.
- The study is very useful for determining the Market trend in the long run and for adopting and changing the future monetary policies and systematizes and simplifies their implementation.
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## CONCLUSION

The present study was done with very small sample size offive sectors of the BSE indices. The results of the study are encouraging to the Accounting professionals, the Stock Market Analysts, the investors and the Regulatory agencies. The Indian Stock Market supports the growth of industry and commerce in a country to a great extent. The market performance and economic growth of the nation are highly related to the empowerment of economic growth level. The overall results of the study states that the BSE Indices of the selected samples has not been significantly affected by the demonetisation policy of the RBI. Though the BSE Sensex was slightly affected there is no significant change in the movement of the sample indices during the study periods.

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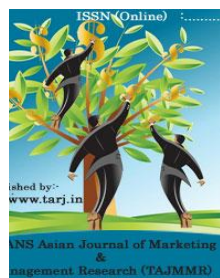
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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## THE IMPACT OF PDS ON FOOD SECURITY AMONG AAY CARD HOLDERS IN MELUKAV PANCHYATH OF KOTTAYAM DISTRICT, KERALA

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### ABSTRACT

*Public Distribution System is the largest food distribution network in the world. It provides food grains at highly subsidized prices. Kerala is a consumer state; most of the food and non- food - articles comes from the other states and from the government welfare schemes. Along with PDS land reforms, the spread of education, health care, pension schemes and Kudumbashree are also playing an effective role in reducing poverty ratios in Kerala. Even though various schemes, steered by governmental and non-governmental organizations, dealt with poverty reduction in Kerala, there are still several pockets of food deprivation in the state, especially among tribal population and fishermen communities. Therefore the present study focuses only on the current administration of PDS among AAY cardholders of Melukav Panchyath in Kottayam District. The result of the study indicates that, the present system of PDS act as a social welfare and anti-poverty scheme of the government which brings food security among the poor people, by having a positive impact on price, quantity and monthly expenses of the AAY card holders.*



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**KEYWORDS:** *Public Distribution System, Antyodaya Anna Yojana (AAY), Food Security*

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## INTRODUCTION

The Public Distribution System (PDS) is an Indian food security system for the poor people established by the Government of India. A large section of the population in developing countries like India, especially in backward States, has limited access to food. Food security is a fundamental human right. In order to achieve the concept “zero hunger”, the UNO declared war to end hunger and thereby, to achieve food security and improved nutrition and to promote sustainable agriculture as a developmental goal (Kerala Economic Review, 2016). Public Distribution System is the largest food distribution network in the world. It provides food grains at highly subsidized prices. Because in Kerala, poverty is mainly concentrated in some backward communities such as SC, ST, fishing communities, potters, artisans etc. Even though various schemes, steered by governmental and non-governmental organizations, dealt with poverty reduction in Kerala, there are still several pockets of food deprivation in the state, especially among tribal population and fishermen communities. Therefore the present study focuses only on the current administration of PDS among AAY cardholders, but restricted to Melukav Panchyath of Kottayam District, Kerala and discusses how this scheme facilitates means to eradicate poverty and which way bring food security among them.

## REVIEW OF LITERATURE

**Marta Koziacka and et.al (2016)** analyzed consumption pattern of wheat and rice delivered through the PDS in India and investigates targeting errors as well as reasons for leakage. Through the data it is clear that majority of the poorest of the poor, AAY card holders, consumes subsidized grains and they buy almost the full ration. The study also shows that the price subsidy had a negative and significant impact on both wheat and rice PDS consumption of the APL cardholders and a positive and significant for both AAY and BPL groups

**Haldar's (2014)** analyzed the extent of supporting measure of PDS in helping the poor to maintain minimum nutritional status and levels of living. This study results shows that, PDS plays a more meaningful role in translating macro level self-sufficiency into micro level self-sufficiency by ensuring availability of food grains for the poor households. Also it shows only 56 to 58.5 percent of the total food subsidy reaches the PDS consumers.

**Santha and Lavanya (2016)** investigated the effect of food security through PDS. The study reveals that the effectiveness of PDS has improved over time because, PDS provides rational amount of basic food items and non-food items at subsidized prices to consumers through a network of fair price shops.

**Kannan and Dev (2000)** noted that, the present PDS exists in meaningful form in several states. The Kerala experience highlighted the advantage of universal PDS. It has ensured both physical and economic access and has sought to provide an entitlement of food-grains which is close to 90 per cent of requirement.

**Mohammed Kasim (2012)** analyzed food security and nutritional status in Kerala by examining both supply side and demand side factors. The study found that nutritional status of men and

women in the state is found to be better and the incidence of undernutrition among children has declined.

**Kripa Shankar (2002)** stated that PDS provide relief to the poorest sections of the population particularly in rural area. Also food grains distributed to BPL and APL households through a network of Fair Price Shops, it has reduced the starvation death and increased the welfare of the poor people

### OBJECTIVES OF THE STUDY

1. To study the socio economic factors that influence PDS card holders to purchase more from the PDS Shops
2. To examine the implementation of AAY under PDS in the households in the study area

### HYPOTHESIS

There is no significant relationship between Quantity Allocation - before and after AAY

There is no significant relationship between Price Changes - before and after AAY

There is no significant relationship between Monthly Expenses - before and after AAY

### METHODOLOGY

The current study was based exclusively on primary data. To collect primary data, multistage purposive sampling technique has been used and personal interview schedules were administered to 73 AAY households. Selecting the Kottayam District of Kerala in the first stage, blocks in the second stage, panchayat in the third stage and finally the households at stage four. In Erattupetta panchayat, Melukav panchayat will be chosen among 6 panchayats because more Scheduled Tribe BPL card holders living in this panchayat in the Erattupetta block. Based on this from AAY category 10 per cent of PDS card households were chosen. As per the 2011 census, Melukav panchayat has a population of 11397, with 5573 males and 5824 females. In total, around 3.78 percent of the people belong to Scheduled Tribe category. These people are mainly residing in underdeveloped hilly areas of this panchayat.

### RESULTS AND DISCUSSION

PDS is an inevitable institution of the Indian Government which makes possible the welfare of the weaker and marginalized in the country. In order to analyze the impact of PDS on food security among AAY card holders in Melukav panchayat of Kottayam District, Kerala by the primary data collected from the 73 AAY households. This study analyzes the current PDS scheme whether which brings food security among the poor people, by having a positive impact on price, quantity and monthly expenses of the AAY people. The important findings of the study are as follows:

**TABLE 1: SOCIO-ECONOMIC CHARACTERISTICS OF CARD HOLDERS**

SL.NO	Sex	Frequency (N=73)	Percentage (%)
1	Male	23	31.51
2	Female	50	68.49

	<b>Age</b>		
1	Young	6	8.22
2	Middle	43	58.9
3	Old	24	32.88
	<b>Community</b>		
1	GC	1	1.37
2	OBC	2	2.74
3	ST	70	95.89
	<b>Type of Family</b>		
1	Joint	1	1.37
2	Nuclear	72	98.63
	<b>Family size</b>		
1	1-2	20	27.4
2	2-4	50	68.49
3	4-6	3	4.11
	<b>Level of Education</b>		
1	Informal	1	1.37
2	Primary Level	61	83.56
3	Secondary Level	3	4.11
4	Higher Secondary	4	5.48
5	Degree	2	2.74
5	Diploma	2	2.74
	<b>Occupation</b>		
1	House wife	37	50.68
2	Daily wage	25	34.25
3	Agriculture	4	5.48
4	Business	1	1.37
5	Others	6	8.22
	<b>Monthly Income</b>		

1	Less than 10000	62	84.93
2	10000-20000	9	12.33
3	above 20000	2	2.74

Table 1 depicts the socio-economic characteristics of the PDS card holders. It is important to ascertain the role of male and female in purchasing the commodities from the ration shops. It is to be noted that female members have greater influence on the purchasing behavior of the family. Purchase of things from ration shops also not exceptional. It could be found from the present study that more than half (68.49%) of the respondents were female. Age is another important factor, which also decides the purchasing nature of an individual and which helps to establish the relationship with the market. In the study, it is found that, majority of the respondents were in the age group of 35 to 60. Out of 73 respondents, 6 respondents were in the age group of 0 to 35, 43 respondents are in the age group of 35 to 60 and 24 respondents were in the age group of above 60. In the present analysis, the prevailing communities living in the area were GC, OBC, SC and ST. The study result shows that 95.89 percent of the people belonged to ST community. From the table, it could be found that a total of, 98.63 percent people belonged to nuclear family and only 1.37 percent of the sample households belonged to joint family system. Family size is another significant economic factor that decides the purchasing nature of a household. It is found that out of 73 households, 50 households have an average member of 3 and 4. About 27.4 percent of the households consist of 1-2 members. Educational status of the sample householders is another socio-economic factor that can influence the purchase from PDS outlets. From this study it could be found that more than four-fifths (83.56%) of the respondents have only primary level education. About 5.48 percent were qualified with higher secondary. Occupation decides the income level of the individual and ultimately their purchasing behaviour. In this study, it is found that more than half of the respondents were house wives. Regarding the occupational status, 34.25 per cent were engaged in daily wage and it was their main source of income, 8.22 per cent of the people were engaged in other types of occupations like running petty shops, sweeping, *MGNREGS*, helping in various institutes, fishing etc. Only 5.48 percent of the samples are engaged in agriculture. Monthly income of the householders is also an important factor that determines the economic status of the householder. In total, more than 60 of the respondents have their monthly income range below Rs.10000.

**TABLE 2: PAIRED SAMPLE TEST ON IMPACT OF QUANTITY ALLOCATION - BEFORE AND AFTER AAY**

SL.N O	Particulars	Paired Sample Test					t	df	Sig. (2- taled)
		Mean	Std.Devi ation	Std.Erro r Mean	95% confidence level of the Difference				
					Lower	Upper			
Pair 1	White Rice	-.206	1.628	.074	-.351	-.061	-2.789	72	<b>.006</b>

	Quantity								
Pair 2	Red Rice Quantity	-.167	1.408	.064	-.293	-.041	-2.612	72	<b>.009</b>
Pair 3	Wheat Quantity	-.115	.773	.035	-.184	-.046	-3.288	72	<b>.001</b>
Pair 4	Sugar Quantity	3.093	59.706	2.711	-2.234	8.420	1.141	72	.255
Pair 5	Kerosene Quantity	9.278	182.998	8.309	-7.049	25.605	1.117	72	.265

Source: Primary Data

Table 2 shows the paired sample test on impact of quantity allocation - before and after AAY of the households. To analyse this situation here focused on five variables and its effects on the households. The chosen variables were white rice, red rice, wheat, sugar, and kerosene quantity available from the PDS before becoming AAY and after becoming AAY category. Here the researcher assumes that there is significant difference between the quantities before and after AAY. And there is no significant difference between the quantities before and after AAY.

#### Pair 1: (White Rice Quantity)

The t-value obtained from the analysis of the overall value of the pre-test and the post-test is -2.789 and significant at the one percent level. The analysis shows that there is a significant difference between white rice quantities allotted before and after AAY. Therefore, the null hypothesis is rejected. There is no significant difference in the mean value of the white rice quantity allotted before and after AAY. The significance level also suggests that the difference in the mean value of the white rice quantity allotted before AAY - white rice quantity allotted after AAY is due to the effect of how the food were allotted and how much people are benefited by this AAY scheme.

#### Pair 2: (Red Rice Quantity)

The t-value found from the analysis of the overall mean value of the pre-test and the post-test is -2.612 are significant at the one per cent level. The analysis shows that there is a significant difference between Red rice quantities allotted before and after AAY. So the null hypothesis is rejected. There will be no significant difference in the mean value of the Red rice quantity allotted before and after AAY. The significance level also suggests that the difference in the mean value of the Red rice quantity allotted before AAY - Red rice quantity allotted after AAY is due to the effect of how the food were allotted and the importance of red rice among the south Indian people.

#### Pair 3: (Wheat Quantity)

The t-value attained from the analysis of the overall mean value of the pre-test and the post-test is -3.288 is significant at the one per cent level of 0.001. The analysis shows that there was a

significant difference between Wheat quantity allotted before AAY - wheat quantity allotted after AAY. Therefore, here the researcher rejects the null hypothesis: There will be no significant difference in the mean value of the wheat quantity allotted before AAY - wheat quantity allotted after AAY. The significance level also suggests that the difference in the mean value of the wheat quantity allotted before AAY - wheat quantity allotted after AAY is due to the effect of how the food were allotted and how the people were enjoying more benefit from the quantity allotted before and after.

#### Pair 4: (Sugar Quantity)

The t-value of 1.141 is not significant even at 10 per cent level. The analysis shows that there is no significant difference between sugar quantities allotted before and after AAY. Therefore in this pair the null hypothesis is accepted. Which means there is no much more differences in quantity available of sugar from the PDS before and after AAY.

#### Pair 5: (Kerosene Quantity)

The t-value gained from the analysis of the overall mean value of the pre-test and the post-test is 1.117 which was not significant and there was no significant difference between Kerosene quantity allotted before and after AAY. So here in this study with the level of significance we are accepting the null hypothesis and rejecting alternative hypothesis.

**TABLE 3: PAIRED SAMPLE TEST ON IMPACT OF PRICE CHANGES - BEFORE AND AFTER AAY**

SL.NO	Particulars	Paired Sample Test					t	df	Sig. (2-taled)
		Mean	Std.Deviation	Std.Error Mean	95% confidence level of the Difference				
					Lower	Upper			
Pair 1	White Rice Price	.270	2.139	.097	.079	.461	2.781	72	<b>.006</b>
Pair 2	Red Rice Price	.491	4.735	.215	.068	.913	2.282	72	<b>.023</b>
Pair 3	Wheat Price	.256	2.963	.135	-.009	.520	1.900	72	<b>.058</b>
Pair 4	Sugar Price	.052	.886	.040	-.027	.131	1.282	72	.201
Pair 5	Kerosene Price	.138	3.173	.144	-.145	.421	.959	72	.338

Source: Primary data



Impact of price changes on the PDS commodities - before and after AAY of the selected AAY households were analyzed with the help of paired sample test given in the table 3. For examining this situation, here the researcher has chosen variables like PDS Price of the white rice, red rice, wheat, sugar and kerosene before and after becoming AAY cardholders. Here the hypothesis is significant price changes before and after AAY.

**Pair 1: (white Rice price)**

The analysis shows that t value is significant at the one per cent level of .006. Therefore the study reveals there is significant difference between the price of white rice before and after AAY. Here we are accepting alternative hypothesis with the significant level and proved that there is significant difference in price of white rice before and after AAY card holder.

**Pair 2: (Red Rice price)**

The analysis shows that there was a significant difference between price of red rice before and after AAY card holder at the t value is significant at 0.05 levels. So there is significant difference between the prices of red rice before and after AAY among the AAY card holders.

**Pair 3: (Wheat Price)**

The t-value attained from the analysis of the overall mean value of the pre-test and the post-test is 1.900 and significant at the 5 per cent level. The analysis shows that there was a significant difference between wheat prices before and after AAY .Therefore here the researcher rejects the null hypothesis: There will be no significant difference in the mean value of the wheat prices before AAY - wheat prices after AAY. The significant level also suggests that the difference in the mean value of the wheat prices before AAY - wheat prices after AAY is due to the effect of how the government gives importance to the poor and marginalized people and for their food security.

**Pair 4: (Price of Sugar)**

From the table it could be understand that there are no price differences before and after AAY of the sugar in AAY cardholders as the t (1.282) is not significant even at 10 percent level. Therefore, there is no significant difference between the price of sugar before and after AAY among the AAY cardholders.

**Pair 5: (Price of Kerosene)**

The t-value obtained from the analysis of the overall mean value of the pre-test and the post-test is .959 which is not significant and there were no significant differences between prices of kerosene before AAY – price of kerosene after AAY.

To sum up the above analysis it is shown that there is impact of price changes - before and after AAY among the AAY cardholders. The major positive impact could be noted in white rice, red rice and wheat consumption and the price of these PDS commodities.

**TABLE 4: PAIRED SAMPLE TEST ON IMPACT OF MONTHLY EXPENSES - BEFORE AND AFTER AAY**

SL.NO	Particulars	Paired Sample Test					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% confidence level of the Difference				
					Lower	Upper			
Pair 1	Monthly expenses of White rice	.264	2.206	.100	.067	.461	2.634	72	<b>.009</b>
Pair 2	Monthly expenses of Red Rice	.491	4.735	.215	.068	.913	2.282	72	<b>.023</b>
Pair 3	Monthly expenses of Wheat	.202	2.793	.127	-.047	.451	1.593	72	.112
Pair 4	Monthly expenses of Sugar	.052	.886	.040	-.027	.131	1.282	72	.201
Pair 5	Monthly expenses of Kerosene	.165	3.116	.142	-.113	.443	1.166	72	.244

Source: Primary Data

The impact on monthly expenses on AAY cardholders before AAY and after becoming AAY cardholders were analyzed in table 4 with the help of paired sample test. To test this question, researcher chosen monthly expenses of the card holders on PDS grains before AAY and after AAY. The important variables chosen were monthly expenses on white rice, monthly expenses on red rice, monthly expenses on wheat, monthly expenses on sugar, and monthly expenses on kerosene. For this alternative and null hypothesis were formed. In alternative hypothesis, researcher assumes that there is significant difference between the monthly expenses before and after AAY.

To check the hypothesis, the researcher has chosen the first pair of monthly expenses of white rice before and after AAY. In this analysis the t value is significant at one percent level .

Therefore, there is significant difference on monthly expenditure of white rice before AAY and after AAY.

The study has also analyzed the second pair of monthly expenses of red rice before and after AAY. Here also the t value is significant at 5 percent level. So, there is significant difference between the monthly expenses of red rice before and after AAY.

Rest of the three variables namely, monthly expenses of wheat before and after AAY, monthly expenses of sugar before and after AAY and monthly expenses of kerosene before and after AAY were insignificant. Hence, there are no significant differences between the monthly expenses of wheat, sugar and kerosene before and after AAY. Thus the expenditure made on the above items was partially varied before and after AAY and hence the hypothesis is partially accepted.

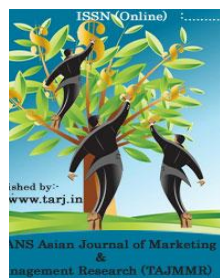
## CONCLUSION

To conclude the role of Public Distribution System in ensuring food security to the poor people in India is vital. Essential commodities like rice, wheat, sugar and other non-food products are supplied to the people under PDS at below-market prices. In this study, the researcher has adapted Melukav panchayat of Kottayam District of Kerala and studied how the PDS works and brings food security to the poor people. Kerala has an efficient public distribution system which is the key instrument in providing food security to most of its population. Yet, the study found that there was a significant difference could be noticed in essential commodities like red rice, white rice, wheat before and after obtaining AAY cards in terms of quantity, Price and expenditure made to purchase these items. so the impact of PDS on AAY cardholders is positive and which in turn secure their food.

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## A COMPARATIVE STUDY ON THE ENTREPRENEURIAL STATUS OF WOMEN ENTREPRENEURS IN SELECTED RURAL AND URBAN AREAS OF THIRUVANANTHAPURAM, KERALA

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### ABSTRACT

*Entrepreneurship creates employment opportunities by making use of natural and human resources effectively for production and services. Entrepreneurship is bred by self-employment and contributes to the economic growth of a nation. Women are venturing as entrepreneurs in all kinds of business. Even though women entrepreneurship is comparatively less than male entrepreneurship, they provide job for themselves and others thereby occupying a vital position in the economic structure of a nation. The status and role of women entrepreneurs varies depending on the field and environment. The present study analysed and compared the socio-economic and entrepreneurial status of women entrepreneurs in rural and urban areas of Thiruvananthapuram, Kerala. The present study entitled "A comparative study on the entrepreneurial status of women entrepreneurs in selected rural and urban areas of Thiruvananthapuram, Kerala" aims at eliciting and comparing the current status of the women entrepreneurs in rural and urban areas of Thiruvananthapuram.*

**KEYWORDS:** *Entrepreneurship, business, self-employment, economic growth.*

## INTRODUCTION

In India, Kerala is a state with highest literacy (including women literacy) reflecting a congenial atmosphere for the emergence and development of women entrepreneurship in the state (Khanka, 2004).

Women entrepreneurship comes into prominence in India in the 1970s. Though at the initial stage, women entrepreneurship developed only at urban areas, lately it has extended its wings to rural and semi urban areas too (Verma et al., 2005).

Entrepreneurial activities are substantially different depending on the type of organization and creativity involved. Entrepreneurship ranges in scale from solo projects to major undertakings creating many job opportunities. Entrepreneurship has been considered the backbone of economic development. It has well established that the level of economic growth of a region to a large extent depends on the level of entrepreneurial activities in the region (Pandya, 2016).

Women are now more cognisant about their existence, roles and rights. Women entrepreneurs are those who explore new paths of economic involvement and contribution. Women entrepreneurs have been making a significant impact in all segments of the economy in India (Desai, 2009).

The present study entitled “A comparative study on the entrepreneurial status of women entrepreneurs in selected rural and urban areas of Thiruvananthapuram, Kerala” aims at eliciting and comparing the current status of the women entrepreneurs in rural and urban areas of Thiruvananthapuram.

## OBJECTIVES

Objectives of the study are;

1. To find out the socio- economic profile of the selected women entrepreneurs in rural and urban areas of Thiruvananthapuram.
2. To compare the entrepreneurial status of selected women entrepreneurs in rural and urban areas of Thiruvananthapuram.

## METHODOLOGY

The present study was conducted among women entrepreneurs in selected rural and urban areas of Thiruvananthapuram, the capital of Kerala. Twenty samples were taken from rural areas like Pachalloor and Aruvikkara, twenty samples were taken from urban areas like Palayam and Sasthamangalam in Thiruvananthapuram. Both primary and secondary data were used for the study. Primary data was collected using a well- structured interview schedule. Random sampling method was used to collect samples. The collected data were tabulated and analysed using percentage analysis.

## RESULTS AND DISCUSSION

### A. Socio- economic background of the selected women entrepreneurs



The socio- economic background of the selected women entrepreneurs are depicted in table no. 1.

**TABLE NO. 1 SOCIO- ECONOMIC BACKGROUND OF THE SELECTED WOMEN ENTREPRENEURS**

Category	Rural		Urban	
	No.	Percent (%)	No.	Percent (%)
<b>Age</b>				
18- 23 years	5	25	3	15
24- 29 years	2	10	4	20
30- 35 years	7	35	5	25
36- 40 years	6	30	8	40
<b>Marital status</b>				
Married	17	85	13	65
Unmarried	3	15	7	35
<b>Educational qualification</b>				
Illiterate	1	5	-	-
Literate	2	10	1	5
Primary school	5	25	3	15
High school	4	20	5	25
Degree	6	30	4	20
Post-graduation and above	2	10	7	35
<b>Type of family</b>				
Nuclear family	5	25	14	70
Extended family	12	60	6	30
Joint family	3	15	-	-
<b>Monthly income (in Rs.)</b>				
Below Rs. 5000	4	20	3	15
Rs. 5000- Rs. 10000	14	70	7	35
Above Rs. 10000	2	10	10	50

From the study, it was found that thirty five percent of the selected respondents are 30- 35 years in rural areas and forty percent of the respondents are 36- 40 years of age in urban areas.

Marital status of the respondents reveal that eighty five percent and sixty five percent are married and unmarried samples are more in urban areas than rural counterparts.

The educational qualifications of the selected women entrepreneurs are appreciable. Only five percent of the selected respondents are illiterate and thirty percent of the selected rural entrepreneurs are graduates and thirty five percent of the selected urban entrepreneurs are post graduates.

Extended families are now gaining importance. It is evident from the study that extended families are more in rural areas than urban areas. Sixty percent of the selected women entrepreneurs come from extended families and seventy percent from nuclear families in rural and urban areas respectively.

Monthly incomes of the selected urban women entrepreneurs are higher when compared to the rural women entrepreneurs. Regarding the monthly income of the samples, seventy percent of the samples in rural areas have an income between Rs. 5000 to Rs. 10000 and in urban samples, fifty percent have an income above Rs. 10000.

### B. Details of entrepreneurship

Details of the selected women entrepreneurs regarding the job experience, membership in self-help groups, source of the investment and motivation for starting up the enterprise are depicted in table no. 2.

**TABLE NO. 2 DETAILS OF ENTREPRENEURSHIP**

Category	Rural		Urban	
	No.	Percent (%)	No.	Percent (%)
<b>Job experience (in years)</b>				
0- 2 years	8	40	7	35
3- 5 years	7	35	9	45
6- 10 years	3	15	2	10
More than 10 years	2	10	2	10
<b>Membership in SHGs</b>				
Member	12	60	7	35
Not a member	8	40	13	65
<b>Source of Investment</b>				
Own cash	2	10	4	20

From family members	8	40	4	20
From neighbours and friends	4	20	2	10
From money lenders	3	15	4	20
Bank loans	3	15	7	35
<b>Source of motivation for starting enterprise</b>				
Self- motivation	6	30	7	35
Family members	4	20	2	10
Friends	3	15	2	10
Self- help groups	4	20	3	15
NGOs	1	5	3	15
Government organisations	2	10	3	15

Majority of the selected respondents, that is forty percent in rural areas are having job experience of 0- 2 years while in urban areas forty five percent have job experience of 3- 5 years.

It was interesting to know that the influence of self- help groups in rural areas is more in urban areas. Sixty percent of the respondents in rural areas are members in SHGs while in urban areas, it is only thirty five percent.

The source of finance for the enterprise contributes greatly for the success of any venture. The seed money come from variety of sources. Forty percent of the investments in selected rural entrepreneurs come from the family itself and it shows the support and motivation they receive from their families. In urban areas, majority (35 percent) of the investment come in the form of bank loans followed by family, own cash, money lenders, friends and neighbours.

Self- motivation is considered to be the highest percentage (25 percent and 30 percent respectively) in both rural and urban areas. Followed by this comes family members, friends, self- help groups, NGOs and Government organizations.

### C. Qualities of an entrepreneur

An entrepreneur should possess certain qualities in order to run an enterprise successfully. The most appropriate quality in the view of the selected respondents are tabulated below in table no. 3.

**TABLE NO. 3 QUALITIES OF AN ENTREPRENEUR**

Qualities of an entrepreneur	Rural		Urban	
	No.	Percent (%)	No.	Percent (%)
Self confidence	5	25	6	30
Leadership	2	10	1	5
Creativity	3	15	2	10
Clear objectives	1	5	3	15
Technical knowledge	2	10	1	5
Initiative	2	10	2	10
Risk taking	3	15	3	20
Social networking	1	5	1	5
Patience	1	5	1	5
Human relation ability	-	-	-	-
Emotional stability	-	-	-	-

The selected respondents were given a list of qualities to be possessed by an entrepreneur. They were asked to choose the most appropriate quality. Self- confidence was opted by majority of the respondents in both rural and urban areas (25 percent and 30 percent respectively) as the most appropriate quality. No respondents opted for human relation ability and emotional stability in either rural or urban areas. So, it can be inferred from the study that the selected women entrepreneurs need to improve their qualities of human relation ability and emotional stability.

#### **D. Income generation activities**

The various income generation activities done by the selected women entrepreneurs are tabulated under table no. 4.

**TABLE NO. 4 INCOME GENERATION ACTIVITIES**

Income generation activities	Rural		Urban	
	No.	Percent (%)	No.	Percent (%)
Beauty parlour	3	15	4	20
Stitching centre	4	20	3	15
Restaurant	2	10	2	10
Bakery	1	5	2	10

Boutique	1	5	2	10
Textile show room	1	5	2	10
Stationary shop	2	10	1	5
Grocery	3	15	1	5
Poultry farm	2	10	1	5
Internet service centre	1	5	2	10

Beauty parlour, Stitching centre, Restaurant Bakery Boutique, Textile show room, Stationary shop, Grocery, Poultry farm and Internet service centres are the enterprises on which the selected women entrepreneurs are engaged in. Among these, 20 percent of the selected rural and urban respondents are engaged in stitching centres and beauty parlours respectively. Bakery, boutique, textile show room and internet service centres are only five percent among rural respondents while it is stationary shop, grocery and poultry farm among the urban respondents.

#### E. Constraints faced by the selected respondents.

Major constraints faced by the selected respondents are presented in table no. 5.

**TABLE NO. 5 CONSTRAINTS FACED BY SELECTED RESPONDENTS**

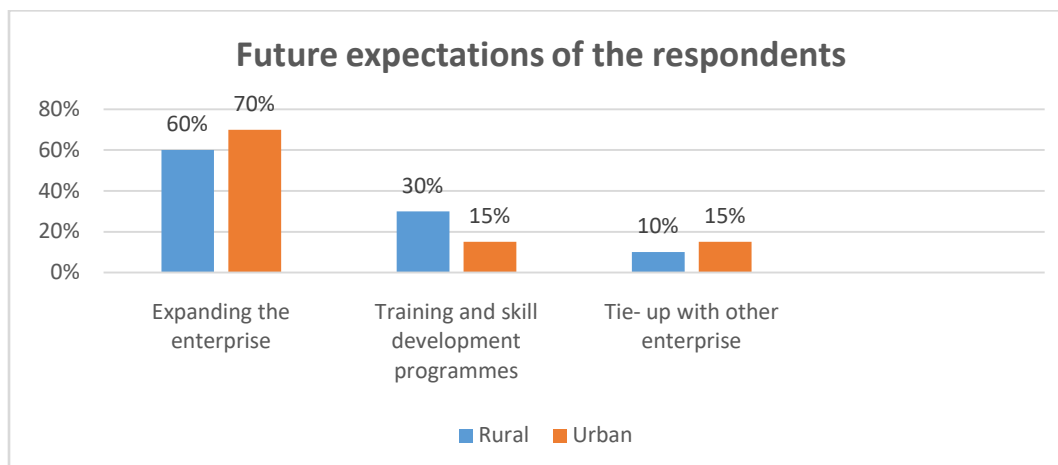
Constraints	Rural		Urban	
	No.	Percent (%)	No.	Percent (%)
Lack of confidence	4	20	4	20
Lack of finance to start up the enterprise	9	45	8	40
Not enough support from family	1	5	2	10
Technological problems	3	15	1	5
Lack of trained or skilled labourers	1	5	4	20
Insufficient marketing arrangements	2	10	1	5

Women entrepreneurs in general are facing many constraints to reach success. Forty five percent of the selected women entrepreneurs in rural areas and forty percent in urban areas are facing the financial problems to start the enterprise. Lack of confidence to face the challenges like fear of failure to run the business, lack of awareness to avail financial assistance and technological problems regarding machineries and latest techniques are also major problems faced by the

respondents followed by lack of trained or skilled labourers and insufficient marketing arrangements.

#### F. Future expectations of the respondents

Future expectations of the selected respondents from rural and urban areas are depicted in figure no. 1.



**Figure no. 1**

Regarding the future expectations of the selected women entrepreneurs, sixty percent of the respondents in rural areas and seventy percent in urban areas are planning to expand their enterprises. Followed by training and skill development programmes by thirty percent and fifteen percent by rural and urban respondents respectively then comes tie up with other enterprises by ten percent among rural respondents and fifteen percent among selected urban respondents.

#### CONCLUSION

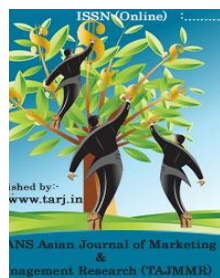
Participation of women in entrepreneurial activities is ever increasing in the present century. Confident and able women take up business opportunities and start up their own enterprises successfully. Women engage in entrepreneurial activities like beauty parlour, stitching centre, restaurant bakery boutique, textile show room, stationary shop, grocery, poultry farm, internet service centres and so on. The major constraints faced by them are lack of confidence, lack of finance to start up the enterprise, not enough support from family, technological problems, lack of trained or skilled labourers and insufficient marketing arrangements. Status of women entrepreneurs differ from rural to urban areas.

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## REPRODUCTIVE HEALTH STATUS OF WOMEN IN KERALA AND TAMILNADU: A COMPARATIVE ANALYSIS

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### ABSTRACT

*One of the key ingredients of women health is reproductive health. Though themselves not diseases they carry enormous health's risks and require health care. A significant Interstate difference in reproductive health is seen among states of India. Kerala and Tamil Nadu are two neighboring states but with significant differences in health and economic status. The objective of the paper is to analyze the utilization of health care service in the event of delivery by women in Kerala and Tamil Nadu the data from NFHS3 and NFHS 4 Rounds and NSSO 71 round are used for the study. Results emerged from the analysis when comparing with NFHS3 figures Tamil Nadu has made rapid strides in reproductive health and Kerala has reached a plateau from which further development has come to cross roads. Good maternal health is also severely constrained by women's lack of authority to make health care decisions for them, seclusion practices that restrict their mobility, socialization that leads them to underplay their own health problems and bear them in silence and lack of control over the role they play in the health care choices for women. A strong and sustained government commitment is therefore needed to improve women's health concern. Good reproductive health of women would help them to serve as productive members of the society to develop the consequent health generations*

**KEYWORDS:** *Reproductive health status, institutional delivery rate, public sector, out of pocket expenditure.*

## INTRODUCTION

Reproductive health is a state of complete physical, mental and social well-being, and not merely the absence of reproductive disease or infirmity. Reproductive health deals with the reproductive processes, functions and system at all stages of life. (UNO, 2000). Reproductive health is a crucial part of general health and a central feature of human development. It is a reflection of health during childhood, and crucial during adolescence and adulthood, sets the stage for health beyond the reproductive years for both women and men, and affects the health of the next generation. The health of the newborn is largely a function of the mother's health and nutrition status and of her access to health care

## HEALTH STATUS OF INDIAN WOMEN

The health of Indian women is intrinsically linked to their status in society. Research on women's status has found that the contributions Indian women make to families often are overlooked, and instead they are viewed as economic burdens. Indian women have low levels of both education and formal labor force participation. They typically have little autonomy, living under the control of first their fathers, then their husbands, and finally their sons. All of these factors exert a negative impact on the health status of Indian women.(Chatterjee Meera1990) One of the Key health issue of Indian women is reproductive health. Lack of reproductive health in the country is manifested itself in the form of increasing maternal mortality rates. India accounts for 15% of pregnancy related death and one of the highest contributor of Maternal mortality(WHO 2015) In the country development among India's 25 states and 7 union territories, it is not surprising that women's health also varies greatly from state to state((Sunilkumar M Somanath Reddy 2013) According to the National Population Policy, 2000, in India, the complex socio-cultural determinants of women's health and nutrition have cumulative effects over a life time. Discrimination begins from the womb itself - sex selected abortion, feticides, attributing girl child low status from the time of her birth onwards. Discrimination against girl child leads to less childcare and malnutrition resulting in impaired physical development of the girl child. Good maternal health is also severely constrained by women's lack of authority to make health care decisions for them, seclusion practices that restrict their mobility, socialization that leads them to underplay their own health problems and bear them in silence and lack of control over the role they play in the health care choices for women

## STATEMENT OF THE PROBLEM

Significant Interstate differences in reproductive health is seen among states of India. Some high income states have low reproductive health status and low income states high reproductive health status. Kerala and Tamil Nadu are two neighboring states but with significant differences in health and economic status. NSDP of Tamil Nadu is much higher than Kerala but Kerala has high Gender development Index rating than Tamil Nadu. Kerala is state have the high health status of women among states of India and Tamil Nadu is a state who is making great effort in increasing investments in health sector especially reproductive health services which began with the introduction of family planning in the mid-1970s. Services were gradually expanded to include maternal health, particularly safe delivery services (Padmanabhan, Sankararaman, &

Mavalankar, 2009;). Tamil Nadu is often ranked the best among the high-performing states in India, next only to Kerala in terms of various health indicators.[NFHS4]Here a comparison between these two states on reproductive health status among women is looked into

### OBJECTIVES OF THE STUDY

The broad objective of the study is to make a comparison of reproductive health status of women of Kerala and Tamil Nadu. The specific objective is to compare the growth and rate of Institutional delivery and utilization of public health services on delivery in these two states. Comparison of percentage of women who received complete ante natal care and expenditure incurred on delivery also looked into.

### METHODOLOGY

The data published by sample registration system NFHS 3 and NFHS 4 Rounds and NSSO 71 round are used for the study. Simple statistical tools like percentage and growth rate has been used for analysis

### Maternal Mortality Ratio: An Analysis

India contributes one-fifth of the global burden of absolute maternal deaths; however, it has experienced an estimated 4.7% annual decline in maternal mortality ratio (MMR) [RGI 2010], [WHO 2012], and 3.5% annual increase in skilled birth attendance since 1990 With in India marked difference is noted in maternal mortality rates ((NFHS4).Here we compare the maternal mortality rates of Kerala and Tamil Nadu with Indian average

**TABLE1**  
**MATERNAL MORTALITY RATE OF KERALA AND TAMILNADU**

	2004-06	2007-09	2010-12	2011-13	Decline from 2010 to 2013	Annual Decline
India	254	212	178	167	-6.17978	-3.4252
Kerala	95	81	66	61	-7.57576	-3.57895
Tamil Nadu	111	97	90	79	-12.2222	-2.88288

Source: SAMPLE REGISTRATION SYSTEM

The trend analysis largely on the SRS estimates presented in four successive MMR bulletins, for 2004–06, 2007–09, and 2010–12 2011-13. It is immediately understandable from table above that the MMR in India continues to be very high (167maternal deaths per 100,000 live births), and that the reduction in MMR has been decelerating in recent times. Maternal mortality rates for India Kerala and Tamil Nadu shows continuous decline throughout the years. Kerala has the lowest rate of MMR among states of India. While looking at the decline from 2010 to 2013 Tamil Nadu shows the highest rate of decline (12.22) and the decline rate of Kerala is also higher than India. While looking the annual decline rate from 2004 to 2013 the greatest decline is noted at Kerala(-3.57) and Tamil Nadu noted a decline rate(-2.88) lower than national average.(-3.4)So Kerala is doing well in reducing maternal mortality rate and while looking at the latest figures

Tamil Nadu is faring well .Kerala has to work hard to reduce the MMR further.MMR is declining at a faster rate.

### **Institutional delivery rates In India Kerala and Tamilnadu: A comparative Analysis**

Overall development of a country is incomplete without women who constitute nearly half of the human resource potential available. If proper care is not taken during this childbearing process, then it affects the overall health especially the reproductive health of the woman as well as the health and well-being of the newborn child. In real sense, the place of delivery is an important aspect of reproductive health care provided to the mother and the quality of care received by the mother and the newborn baby depends upon the place of delivery. Institutional delivery means giving birth to a child in a medical institution under the overall supervision of trained and competent health personnel where there are more amenities available to handle the situation and save the life of the mother and child. Institutional births result in reduced infant and maternal mortality and increased overall health status of the mother and the child (Sugathan K.S., Vinod Mishra & Robert D. Retherford2001): Let us analyse the institutional delivery rates in India and two states

**Table 2**  
**Institutional delivery rates: A comparison**

	NFHS4:2015-16	NFHS32005-2006
India	78.9	38.7
Kerala	99.9	99.9
Tamil Nadu	99.2	87.8

Source: NFHS4

India has the bad image of having lowest institutional birth rate across world. So Tremendous effort has been made by India and states increase institutional birth rates. So there was a drastic increase in institutional birth rates in India. Institutional births increased from 38.7% to 78.7 % in India when we move from NFHS3 to NFHS4.Kerala having HDI value to developed nations has already achieved 100%institutional delivery. Tamil Nadu has took so much effort to improve institutional delivery rates so while moving from NFHS3 toNFHS4 state has achieved an Increase from87.8% to 99.2%. Tamil Nadu is in the verge of achieving 100% institutional births

### **Rates of Ante Natal Checkup: A comparison**

Antenatal care encompasses a broad spectrum of clinical procedures and care provided to pregnant women. Ideally, all pregnant women should have proper access to effective antenatal care irrespective of their social, economic, cultural and geographical background. The WHO recommends that all pregnant women should receive care during early stages of pregnancy within the first trimester followed by at least 4 antenatal visits (WHO, 2006). studies have shown that access to effective antenatal care can lead to better utilization of delivery care, postnatal care, and treatment and management of pregnancy, delivery and post-delivery complications (Bloom et al., 1999; Ram and Singh, 2006). In India, only three-fourths of women receive any form of care and less than two-fifths have the recommended 4 or more visits (IIPS and ORC

Macro, 2007). Here the comparative analysis of women received full antenatal checkup in India and two states two states and are given below

**TABLE3**  
**ANTE NATAL CARE: AN ANALYSIS**

	NFHS4:2015-16	NFHS32005-2006	Annual Growth rate
India	31.1	11.6	1.95
Kerala	63.1	66.7	-0.36
Tamil Nadu	46.3	27.5	1.88

Source: NFHS4

The data on full ante natal checkup received by women shows a very dismal picture. Only 31.1 % of women in India receives full antenatal check up. The highest coverage of antenatal care is for state of Kerala which is 63.1% and Tamil Nadu have the coverage greater than national average but only 46.3%. While analysing the growth rate of receipt of antenatal care In India and States across NFHS3 and NFHS4 progress rate seen in institutional birth rate is not seen here. in Kerala .36% decline is seen in ante natal care. So an effort to increase receipt of antenatal care is essential to ensure reproductive health.

#### **Rate of dependency on Public sector: An analysis**

An increasing proportion of people are using private health care facilities, rather than public, though the costs in the latter are much more affordable, a countrywide survey on health care access has revealed.(NFHS4) Though Kerala has the highest density of public and private medical facilities among major states in India (Government of India 2003). But dependency rate is less .In Tamil Nadu there is well structured public health care system which helped the state to achieve high health standards. Let us analyse the dependency rate on public sector on the event of child birth in India and states of Kerala and Tamil Nadu

**TABLE4**  
**DEPENDENCY PUBLIC SECTOR IN INDIA KERALA AND TAMIL NADU FOR CHILD BIRTH**

	NFHS4:2015-16	NFHS32005-2006	Growth Rate
India	52.2	18	19
Kerala	38.4	35.6	0.786517
Tamil Nadu	66.7	48.1	3.866944

Source: NFHS4

According to NFHS4, in India 52.2% deliveries took place at Public health facility. In Tamil Nadu also majority birth took place at Tamil Nadu.(66.7) But in Kerala only 38.6 % birth took place at public health facility. While analyzing the percentage increase from 2005-06 to 2015-16 19% annual increase in utilization of public facility for child birth is seen in India is seen while this rate is 3.86% for Tamil Nadu and .78% in Kerala. So dependency rate is less in Kerala



**TABLE5**  
**EXPENDITURE ON CHILD BIRTH**

	Public	Private	Total
All India	3704	35106	8614.5
Kerala	3196	41021	14588
Tamilnadu	986	58994	12699

compared to India and Tamil Nadu. Measures to improve better utilization of public health services are to be undertaken.

#### **Expenditure on delivery in India Tamil Nadu and Kerala**

Unlike developed countries, health expenditure in India is largely met by the households (71%), followed by government (20%), businesses (6%) and external flows (2%) (MOHFW 2009). Often household health expenditure, termed as out-of-pocket (OOP) expenditure, is catastrophic for poor households and increases the level of poverty (Garg and Karan 2009). Here we try analyse the out of pocket expenditure in delivery in India and two states Kerala and Tamilnadu

SOURCE: NSSO 71 Round

Private health care sector is expensive than government sector in India Tamilnadu and Kerala. Cost of public health services is low in Tamil Nadu compared to Kerala and all India. But Private sector is expensive than Kerala and all India. Kerala public health expenditure is lower than national average and higher than Tamil Nadu. Private health care expenditure on private health service in Kerala is higher than all India average and less than expenditure incurred Tamil Nadu.

#### **FINDINGS OF THE STUDY**

Maternal mortality and morbidity are two health concerns that are related to reproductive health. This differential maternal mortality is most likely related to differences in the socioeconomic status of women and access to health care services among the states. The high levels of maternal mortality are especially distressing because the majority of these deaths could be prevented if women had adequate health services. (Jejeebhoy and Rao, 1995). While analyzing reproductive health status of Kerala and Tamil Nadu, one can say both states have high levels of reproductive health status compared to the their counter parts. MMR rates are following a deceleration trends but Kerala's deceleration rate is lower than Tamil Nadu rate. Universalization of institutional delivery is witnessed in both states and progress made by Tamil Nadu in last decade is highly appreciable. Ante natal care is not so popular in Tamil Nadu and has less than 50% coverage and though Kerala has above 60% coverage Kerala must strive hard to to attain 100%. Efficiency of public sector has to be increased and effective policies has to ensure curtailing of health care expenditure in private health care sector. Of course though Kerala and Tamil Nadu Tamil Nadu is doing well in reproductive health scenario both states have to go miles to ensure 100% reproductive health to each and every women of the state.

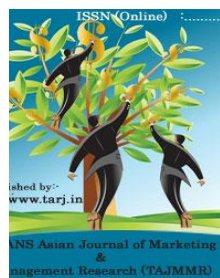
## CONCLUSION

Women's health concern is influenced by interrelated biological, social, and cultural factors. . Nutrition and health education should be strengthened via department of health to improve the nutritional status of mother and child, which are intimately linked. A strong and sustained government commitment is therefore needed to improve women's, health concern. Good reproductive health of women would help them to serve as productive members of the society to develop the consequent health generations

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

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## “ROLE OF PUBLIC –PRIVATE PARTNERSHIP (PPP) IN THE PROGRESSION OF SOCIAL INFRASTRUCTURE AND DEVELOPMENT”

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### ABSTRACT

*Social Infrastructure has a vital role to play with the development of any Nation. In developing countries, which work ahead with Vision & Mission to achieve the status of Developed Countries, social infrastructure has to be given the utmost importance as the Economic Development of a nation strongly rests on the improvement in the Social Infrastructure such as Education, Health, Housing, Transport etc, besides boosting its GDP. For the well being of the nation in terms of quality human capital, it is essential for any Government to provide its fellow men with the right infrastructure that facilitates betterment in all grounds. For e.g. when it comes to Education, the infrastructure should be so well planned that every child that is being born should be able to afford to minimum education. India's literacy rate is 74.04% as per the latest statistics. This has to be increased furthermore, for which the Government has to evolve policies and plans for rendering education services to the interior rural areas which have no schools even today. Similarly, every sector of the social infrastructure has to be given diligent care and concern and should be focused to develop for a better tomorrow, when fulfillment of basic amenities for every citizen, higher literacy rates, better employment opportunities and a well-planned economic development will sprout up. For this, the Government would definitely need the support of the Private ownership which will lend a supporting hand to achieve the targets set towards the infrastructure development. This paper throws light on the various*

*sectors of Social infrastructure, which are more likely to attract Private Partnerships and that which are prone to be result-oriented.*

**KEYWORDS:** *Government, PPP, Private-Public, Social, Infrastructure, Economy, Literacy, Employment, development*

## INTRODUCTION

Social Infrastructure is a collective term that refers to the various fundamental facilities a society requires at large. The various components that build the Social Infrastructure are:

- Health care or Hospitals
- Education
- Transportation
- Public Facilities ( Community and housing)

In the developing countries, there is a visual evidence of Citizens or People's tendency towards seeking the service of privately owned infrastructure facilities, rather than depending on the Government services. For e.g. in India, there is only a meager portion of the entire population that seeks the help of Government sector infrastructure like hospitals, schools, etc. and at the same time, people carry fear to opt healthcare advise or any other services from Government, as the prevalent mindset is that Government offered healthcare or education or any other services, for that matter seem to be highly unsatisfactory. But for a nation with a huge population and an imbalanced societal development in terms of unemployment, poverty, underutilization of resources etc, affording to private infrastructure facilities may not be feasible. Taking a look at the growth of private ownership contribution, to the economy of India, right from its independence, will definitely have an upward slope. The growing demand for the private sector services in the various infrastructure facilities has taken the consideration of Public Private Partnership (PPP) into the purview of various State Governments. Also, the long gestation projects of the Government and its slow paced journey towards progress, have contributed a lion's share in kindling the necessity of PPP in various nations, especially India.

Well, when the question arises as to what are the sectors that attract Private partnership, the first that comes to our mind is "Roadways" or Highways, 'Health Care services', then 'Education' followed by the other facilities that are included as infrastructure, like the transportation and other public facilities. Private partnership is an inevitable measure to improve the efficiency and quality of the services that are provided to the people in general. The extent to which a particular Government allows Private interference in the infrastructure development varies to a large extent from one nation to the other depending upon the economic development of the nations. This paper takes into consideration the Indian context.

## PUBLIC-PRIVATE PARTNERSHIPS IN INDIA:

According to a definition of the Government of India 2011- PPP or 3P is "*an arrangement between a Government / statutory entity / Government owned entity on one side and a private sector entity on the other, for the provision of public assets and/or public services, through*

*investments being made and/or management being undertaken by the private sector entity, for a specified period of time, where there is well defined allocation of risk between the private sector and the public entity and the private entity receives performance linked payments that conform (or are benchmarked) to specified and pre-determined performance standards, measurable by the public entity or its representative".*

To roll back to the past and find out the history of PPP in India, one would have to start citing to the various notable incidents of the late 1800s, when the British invested in the Indian “Railways” and early 1900s, when there emerged Private contributors to the “Power” sector of infrastructure, namely the Calcutta Electric Supply Corporation in Kolkata and Tata Electric power Supply Company in Mumbai.

Later during 1956, The National Highways Act was enacted with a special concern to private participation in Infrastructure Development. Further developments popped up slowly in every decade of the century and the most significant event that brought Private Partnership to the centre-stage took place in 1997, when the “Expert group on Commercialization of Infrastructure Projects” incorporated the *IDFC –Infrastructure Development Finance Company*, chaired by the then Finance Minister, P.Chidambaram in Chennai.

In the Tenth & Eleventh Five Year Plans (2001-2012), there was an increasing scope for PPP and more of the commercially viable projects were given to Private ownership in order to boost up the performance and growth of Social Infrastructure in the Nation.

According to World Bank data on Private Participation in Infrastructure, the aggregate investment commitment in PPI projects was highest in India during 2008-12. A World Bank Report maintained that India remained the largest market for PPI in the developing world. In the South Asian region, India attracted over 90 per cent of regional investment.

Source: [http://planningcommission.gov.in/sectors/ppp\\_report/3.Reports of Committees](http://planningcommission.gov.in/sectors/ppp_report/3.Reports of Committees)

### **PUBLIC PRIVATE PARTNERSHIP APPRAISAL COMMITTEE – PPPAC**

The PPPAC was set up in January 2006 by the Ministry of Finance, through its Department of Economics, in order to streamline the process of appraisal of the projects that involve partnership/ownership from the private sectors. The committee governs the appraisal of projects at the central level.

### **VIABILITY GAP FUNDING SCHEME:**

The Ministry of Finance has created a scheme called the Viability Gap Funding (VGF) scheme in the form of capital grants in order to promote the sustainability of the projects. It is granted upto 20% of the total project cost.

### **ROLE OF PPP IN VARIOUS SECTORS:**

The role of Private participation in various sectors of the social infrastructure may be enumerated as follows:

## 1. HEALTHCARE SERVICES:

Health Care is one of the most important and essential services that requires huge capital investments, as it is planned to serve the entire population of the country with utmost diligence in order to avoid any fatal situations. Hence, this particular sector has to be given more focus and consideration in every financial planning in the Nation.

As far as these services are concerned, the Public sector accounts to only 20% of the total expenditure which is very low when compared to other nations. There is 80% contribution by the private sector in health care services. Though the organization structure of health care is well built starting from PHC- Primary Health Centres to Medical colleges and hospitals, the contribution of the Public sector is comparatively low, yielding to provide the Private sector to enjoy the benefits of lack of resources and underfunded public sector services.

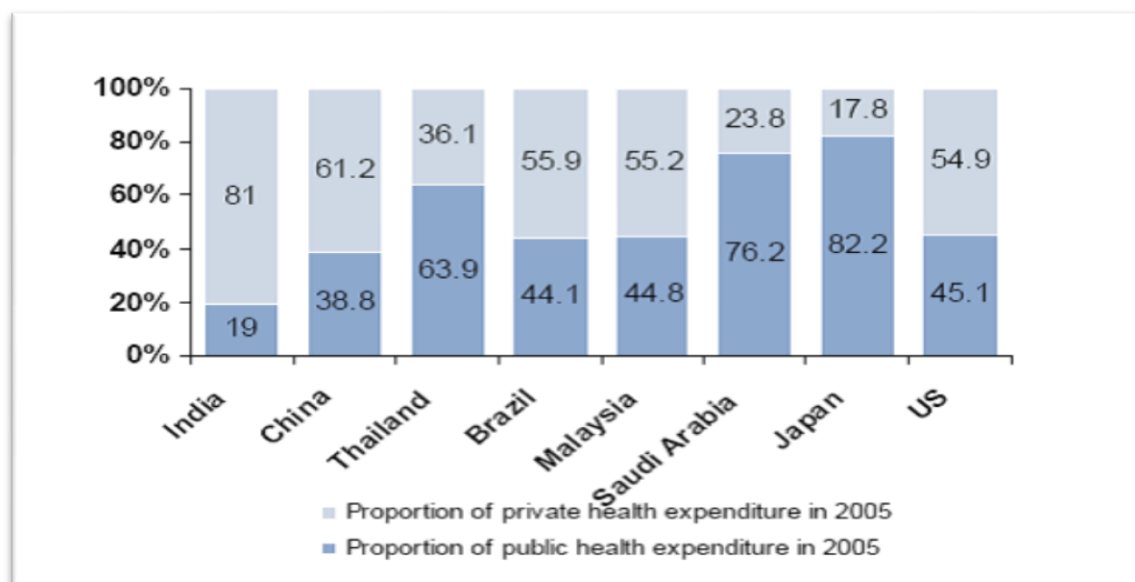


Fig 1: Health Expenditure Distribution between Public and Private sector

Source: Policy paper, CII, 2013

The above figure illustrates the status of India in PPP Healthcare services. This is ought to be boosted up as it is the only feasible option to save hundreds and thousands of lives that fall prey to the burden of disease, demographic changes etc.

## 2. EDUCATION:

The contribution of PPP to the field of Education in India, has a vital role to play as the Government has long ago, encouraged the private ownership into education with the origin of Christian Missionaries and other private players starting Schools and Colleges in various states of the Country. The significance of PPP in education can be explained as follows:

- The financial constraints of the Public sector can be overcome.
- The resource base will be enlarged as the Private sector promotes huge investments.
- It will increase the efficiency, flexibility and relax the various restrictions associated with the Public sector.



- It will increase the competition and bring about quality in service providing.
- It will facilitate more education opportunities to all sectors of the population.

As a measure of encouraging PPP in education, the Eleventh Five year plan proposed and introduced 6000 New Model School that will be affiliated to the Central Board of Secondary Education (CBSE), out of which 2500 schools fall under the PPP model. The aim of setting up such schools was to provide Education Facilities to the Children in the backward regions of the Nation.

### 3. ROADS AND HIGHWAYS:

While considering the roads and highways of India, there are several projects being sanctioned and carried out over years. The roadways of India measure about 4.3 million kilometers. This is one of the core sectors that attract Private partnership. National Highways Authority of India (NHAI) is the apex body of the Government of India which is responsible for the approval and appraisal of the Highways projects which is highly essential for the socio- economic development and the social-integration of the nation.

The investment attraction is both from foreign direct investments (FDI) as well as local private investments.

The roads and highways record to rank no.1 in attraction of private partnership in India as there are many policies that make it more attractive like the income tax exemption for 10 years etc. This sector of investment seems to grow higher every year with more projects completed and more in the pipeline as this is one of the most important sectors of infrastructure development.

### OTHER SECTORS:

The role of PPP in the Health care, education and Roads sectors has been explained above. Similarly, the role of PPP in various other sectors can be highlighted with details available on the No. of projects in each sector along with the value of contracts of these projects. The data presented here is with reference to the year 2014.

**TABLE 1: SECTOR WISE PROJECT DETAILS**

Sector-wise	No. Of. Projects	Based on 100	Between 100 to	Between 251 to	More than	Value of
<b>Crore</b>			<b>250 crore</b>	<b>500 crore</b>	<b>500 crore</b>	<b>Contracts</b>
Airports	5	-	-	303.0	18,808.0	19,111.0
Education	17	424.2	365.5	460.0	600.0	1,849.7
Energy	56	337.6	934.0	3,083.0	62,890.0	67,244.6
Health Care	8	315.0	343.0	275.0	900.0	1,833.0
Ports	61	86.0	1,745.3	4,304.8	74,902.1	81,038.2
Railways	4	-	102.2	873.0	594.3	1,569.6

Roads	405	4,364.6	11,696.5	38,520.5	122,143.3	176,724.9
Tourism	50	1,132.6	1,503.5	800.0	1,050.0	4,486.1
Urban Development	152	2,812.0	3,136.9	6,688.2	16,838.0	29,475.0
<b>Total</b>	<b>758</b>	<b>9,471.9</b>	<b>19,826.9</b>	<b>55,307.5</b>	<b>298,725.8</b>	<b>383,332.1</b>

Source: <http://www.pppinindia.com/>

## CONCLUSION:

As far as India is concerned, Public-Private Partnership is highly essential as the Public Sector may not be able to groom itself financially viable to serve the increasing Population. The report of Economist Intelligence Unit with regard to Infrastructure Development of India, states as shown in figure.

**Fig 2: EIU Infrastructure Development Ratings**

	<b>Brazil</b>	<b>India</b>	<b>China</b>
2001-05 Rating (out of 10)	5.4	3.1	4.5
2001-05 Ranking	47	75	55
2006-10 Rating (out of 10)	5.9	4.1	5.4
2006-10 Ranking	49	75	54

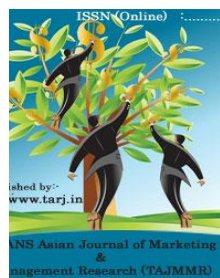
Source: *Economist Intelligence Unit, Country Monitor*

From the study on the role of PPP in various sectors of Infrastructure of India, it is evident that Privatization is necessary to build the economic and social growth of the nation and from the fig 2 above, it can be comprehended that India has to go a long way in the development of Infrastructure when compare to the other nations. Hence, it is concluded that more and more Projects of PPP should be encouraged for a better tomorrow for the Nation and to raise its International Standards ranking.

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## ACCESSIBLE MOBILE TECHNOLOGY AN AID FOR INCLUSION OF PERSONS WITH VISUAL IMPAIRMENT

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### ABSTRACT

*The mobile technology is rapidly evolving; over the years, its uses are becoming diverse and is gradually replacing some similar sources in the market that are also used for communication e.g. post office and land lines. One of the most important uses of smart phones is that they ensure safety. Families can easily communicate with each other while away. Hence it is the need of the hour to analyze the usage of mobile technology among visually impaired in the day to day life. This shows that they need to be exposed and experience need to be given in the use of mobile technology which is portable and accessible, since it encompasses multifaceted facilities, which are very vital in the era of digital technology. Thus digital technology is actively promoted, with the use of mobile devices learners can learn anywhere at any time it is important to bring new technology in to the classroom. It can be an useful add on tool for students with special needs. Thus this portable device quickly and easily deliver and support various function in education, research, independence, safety, navigation ,book share and update and as well as to alert themselves in terms of dangerous situation. Hence it is imperative that visually impaired enrolled in higher education need to be provided with mobile which will enable them to access to educational information and ultimately contribute to their independency which in turn paves the way for inclusive growth.*

**KEYWORDS:** Curriculum, Communication, Navigation, Internet Browsing, Gaming,

**INTRODUCTION:**

The world today is calling to modern ideas and technologies in the various spheres of life. Utilizing technology in teaching learning will develop positive effects on both the student and teacher side related to academic performance, meaningful learning and those affected with various disabilities. Integrating technology in education creates more stimulating learning environment. In order to accomplish higher order thinking skills such as critical and independent thinking. Improved motivation and attitudes, technology must be integrated into the everyday curriculum.

Digital technology has prime importance in our present day education scenario. The role of technology in education has been an important question since the advent of computer. In this globalised environment, it remains an important issue even today. Digital technologies, includes mobile technology provides opportunity to learn in divergent ways.

Mobile technology is a form of technology that is mostly used in cellular communication and other related aspects. . The mobile technology is rapidly evolving; over the years, its uses are becoming diverse and is gradually replacing some similar sources in the market that are also used for communication e.g. post office and land lines. The mobile technology has improved from a simple device used for phone call and messaging into a multi-tasking device used for GPS navigation, internet browsing, gaming, instant messaging tool etc. Mobile technology was a mystery two decades ago but now, it has become something of necessity to both the normal and the differently abled. The mobile technology started as a remarkable achievement in the world of technology but now, it is transforming into user comfort technology due to its present diverse functionality. When the mobile was first introduced and games.

It used to be basically for SMS, Calls But it has presently transformed into a digital world and has made life and business much easier; marketers now have the ability to sell their products with ease through mobiles technology. The mobile is also equipped with internet connectivity, making it easy for the user to gain information and also to download files from the internet. Video call conferencing is another achievement that has come to reality through mobile technology.

Since the arrival of the mobile, it has helped humans in many ways; some of which are mobile phones are very important in case of an emergency they save lives in cases of accidents and other related issues. One of the most important uses of smart phones is that they ensure safety. Families can easily communicate with each other while away. Hence it is the need of the hour to analyze the usage of mobile technology among visually impaired in the day to day life.

**THE OBJECTIVES OF THE STUDY ARE TO:**

- Identify visually impaired enrolled in higher education
- Study the usage of mobile technology in education
- Analyze the usage of mobile technology towards their safety and socialization
- Understand the knowledge of visually impaired about SIRI software and its application

**METHODOLOGY**

Thirty visually impaired students enrolled in higher education were selected by using purposive sampling method. Using mobile technology and pursuing Higher education was the criteria followed for selecting the sample. A checklist was framed and used to analyze the usage and the knowledge about software in their learning process. The data was collected by means of personal interview.

**RESULTS AND DISCUSSION****TABLE 1: USE OF MOBILE TECHNOLOGY IN EDUCATION**

S.No	Items	Always		Sometimes		Never	
		No	Per	No	Per	No	Per
1.	Text Graber	20	7%	4	13%	6	20%
2.	Voice Recorder	15	50%	8	26%	7	23%
3.	Job Access With Speech(Jaws)	25	83%	5	17%	-	-
4.	Calculation	17	55%	8	26%	5	17%
5.	Talk Back	20	67%	7	23%	3	10%
6.	Ms-Word	25	83%	3	10%	2	6%
7.	Voice Search	13	43%	12	40%	5	17%
8.	Powerpoint	15	50%	8	26%	7	23%
9.	NVDA	25	3%	3	10%	2	6%
10.	Daisy Books	12	40%	14	46%	4	13%

About 83 percent of the visually impaired expressed that they always use JAWS and Non visual disk access with speech in their mobile for reading and writing. Fifty percent of them use voice recorder for taking notes in the class and PowerPoint for presentation. Fifty five percent use it for calculations where as only forty percent of them use it to access Daisy books. From this table it is clearly evident that the mobile technology is user friendly and aids in education. Very few were not using it because of non affordability. Since most of them were from poor socioeconomic status. Hence it is imperative that visually impaired enrolled in higher education need to be provided with mobile which will enable them to access to educational information and ultimately contribute to their independency which in turn paves the way for inclusive growth.

**TABLE 2: USE OF MOBILE TECHNOLOGY IN SAFETY AND SOCIALIZATION**

S.No	Items	Always		Sometimes		Never	
		No	Per	No	Per	No	Per
1.	Face Book	10	33%	15	50%	5	17%

2.	Twitter	5	17%	5	17%	20	67%
3.	Whatsapp	25	83%	5	17%	-	-
4.	Google Plus	-	-	5	17%	25	83%
5.	My Friend	5	17%	10	33%	15	50%
6.	Hike	20	67%	10	33%	-	-
7.	Instagram	25	83%	5	17%	-	-
8.	Hangout	5	17%	5	17%	20	67%
9.	Paytm	20	67%	5	17%	5	17%
10.	Google Location	5	17%	10	33%	15	50%

The above table highlights usage of mobile technology in terms of safety and to enrich their social skills. It was surprised to note that always 83 percent of the visually impaired were using whatsapp and instagram to communicate to their friends and relatives. Fifty percent of visually impaired use face book sometimes. In addition they expressed that there is a separate page for persons with visual impairment. With regard to Hike 67% stated that they always use hike and 17% of them expressed that they use it at times when they were free. Sixty seven percent of visually impaired of uses PAYTM for intra and inter transaction of money. Goggle location was used by seventeen percent of them to reach the destination safely. It was noted that eighty three percent of them never uses Google plus. Fifty percent of them never knows about my friend. This shows that they need to be exposed and experience need to be given in the use of mobile technology which is portable and accessible, since it encompasses multifaceted facilities, which are very vital in the era of digital technology.

**TABLE 3: USE OF SIRI SOFTWARE**

S.No	Items	Always		Sometimes		Never	
		No	Per	No	Per	No	Per
1.	Call	30	100%	-	-	-	-
2.	Engages	15	50%	7	23%	8	26%
3.	Adjust The Dress	8	26%	12	40%	10	34%
4.	Find Out The Destination	30	100%	-	-	-	-
5.	Find Out The Emotions	20	67%	5	17%	5	17%
6.	Alert Us	25	83%	3	10%	2	6%
7.	Search For Information	20	67%	6	20%	4	13%
8.	Send The Message	18	60%	9	30%	3	10%



9.	Alarm	20	67%	10	34%	-	-
10.	Play	30	100%	-		-	-

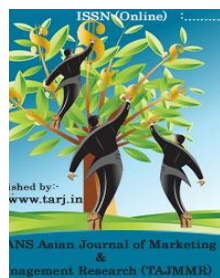
This table provides glimpse of knowledge of visually impaired persons in the use of SIRI software which is available only in the Apple I Phone which has multifarious usage. It was surprise to note that cent percent of the visually impaired know that this software is useful to make a call and find out the destination and to play. Eighty three percent of them expressed that it is useful to alert them when there is a need to save themselves from various issues that they come across in day today life. In addition it also enables them to engage themselves when they feel they were isolated and left alone. From this it is evident that visually impaired were aware of the existing and new technology and its application to act on par with normal students.

### CONCLUSION:

Thus digital technology is actively promoted, with the use of mobile devices learners can learn anywhere at any time it is important to bring new technology in to the classroom. It can be an useful add on tool for students with special needs. It offers teachers and students a more flexible approach to learning. At present in the fast developing world where knowledge explosion is taking place in every sphere that the spoken or written words alone could convey the volume of relevant information to the learner. Mobile learning education is emerging rapidly because of its affordability and accessibility. Thus this portable device quickly and easily deliver and support various function in education, research, independence, safety, navigation ,book share and update and as well as to alert themselves in terms of dangerous situation. Thus this accessible mobile technology enables the differently able to enter into the world of differences which ultimately paves the way for inclusive growth.

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## GREEN PRODUCTS CONSUMPTION- PAVING WAY FOR SUSTAINABILITY

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### ABSTRACT

*Environmental protection has been an issue with remarkable staying power on a public agenda. Green purchase behavior is study of the process involved in purchase behavior attitude, perception on environment, environmental attitude and perceived consumer effectiveness. A number of business and industry groups have respondents to environmental concern by integrating environmental issues into their corporate policy. The degree of green concern varies among consumers, as does the particular environmental issues with the type of purchase. All this argument leads the marketers to find answers, to whether their socioeconomic studies help the residents to buy green products and attitude about green purchase and perception on environment in order to answer the above queries the present study has been carried out in Coimbatore city with sample of 205 respondents . both primary and secondary data is collected and analyzed. The findings revealed that the green consumption behavior of the respondents were highly influenced by environmental attitude, green product purchase behavior, perception on environment, and perceived consumer effectiveness*

**KEYWORDS:** *Environmental marketing, Green product, Purchase decision, socio economic profile*

## INTRODUCTION

Environmental marketing or green marketing is now widely accepted that societies, economics and the business within them need to find a more sustainable path for future development. Environmental or green marketing, a strategic marketing approach is a recent focus in business endeavors (Ottaman, 1998). Increasing focus on environmental issues can be seen as an indication that pro-environmental concerns have emerged as a potential strategic concern for business (Polonsky & Kilbourne 2005). The belief is that the consumer's pro-environmental concern is one of the determinants of their "green buying" behavior i.e., buying and consuming products that are environmentally beneficial (Mainieri et al., 1997). 'Green' a symbol of life, good health, and vigor, is also a color that reminds us of hope. All around the globe, the word is associated with energy conservation and environmental protection. The term 'green consumption' covers full range of activities in both production and consumption fields, including green products, the recycling of materials, the efficient use of energy, the protection of the environment, and the preservation of species. In response to the environmental concern of the early 1970s, concept such as Fisks theory of 'responsible consumption' (1973) reflected the concern about limits to growth in consumption/ green purchasing and green consumption are each only a facet in the challenge of lifestyle that is needs among industrialized countries to make a economic growth sustainable.

Green consumers is "one who avoids products that are likely to endanger the health of the consumer or others, cause significant damage to the environment during manufacture, use or disposal, consumer a disproportionate amount of energy; cause unnecessary waste; use material derived from threatened species or environment; involve unnecessary use of, or cruelty to animal; adversely affect other countries (Elkington 1994). While Moinsander and Peronen(2002) mentioned that green consumers are the consumer who has morally oriented behavior that is reinforced from their need or other, aiming to make better life of society. Generally, consumer decision process consists of 5 stages namely, motivation, information search, evaluation of alternative, purchase choice and purchase outcomes. Understanding the determinants of each stage from the brining through the last stage is needed in order to run the campaign or marketing mix which is suitable to target consumers.

## REVIEW OF LITERATURE

Raji Parameshwaran Pillai (2012) found that consumers know the green products and also know the recycling and disposal of the products in green marketing. Mahesh and Ganapathi (2012) revealed that consumer who have a higher monthly income and educational qualification are more likely to be concerned about the environment and therefore tend to purchase green products. Syeda Shazia Bakhari (2011) shows that the companies need to increase their communication with the customers on 'going green' and environmental responsibility. Monika koller, et al (2011) says that the consumer's loyalty is not the perception or importance of ecological values. Tahir Albayrakl, et. al (2010) found that consumers environmentally sensitive

purchase behavior was assumed to be influenced positively by their environmental concerns, but negatively by their skepticisms.

### OBJECTIVES OF THE STUDY

The main objective of the study is to understand the green consumption behavior specifically the study is focused on:

- to understand the green product purchase behavior of the respondents
- To measure environmental attitude, perception on environment, perceived consumer effectiveness and green product purchase behavior attitude of the respondents
- To bring out the underlying relationship between environmental attitude, perception on environment, perceived consumer effectiveness and green product purchase behavior attitude of the respondents
- To find out determinants of overall green purchase behavior.

### HYPOTHESIS

Null hypothesis have been tested for association between demographic and socio- economic profile of the respondents and decision to purchase of green products, importance of 'Green' characteristics, frequency of purchase of green products, environmental attitude, perception on environment, perceived consumer effectiveness and purchase behavior attitude.

### RESEARCH METHODOLOGY

The study is based on both primary data and secondary data. The required primary data for the study was collected through an interview schedule. The secondary data are collected from research reports, journals, books and corporate websites. A non -probability sampling procedure namely stratified random sampling method was used to select sample respondents for the study. Collected data were analyzed using appropriate tools.

### RESULTS AND DISCUSSIONS

I Demographic and socio-economic profile of the respondents

Socio- economic profile of the consumers have greater bearing on the marketers plan and strategic towards making the marketing mix matching their needs and the moods. Socio-economic profile of the respondents are presented in table1

**TABLE 1**  
**DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE OF THE RESPONDENTS**

Variables		Number of respondents (205)	Percentage
Age (in years)	Below 25	47	22.9
	26-30	77	37.6
	31-35	35	17.1

	36-40	17	8.3
	Above 40	29	14.1
Gender	Male	83	40.5
	Female	122	59.5
Marital status	Married	132	64.4
	Unmarried	73	35.6
Nature of the family	Nuclear	133	64.9
	Joint	72	35.1
Educational qualification	School level	37	18.0
	Graduate	94	45.9
	Post graduate	39	19.0
	Professional	35	17.1
Occupation	Professionals	42	20.5
	Business	87	42.4
	Homemakers	36	17.6
	Employee	40	19.5
Monthly income (Rs)	20000	71	34.6
	20001-30000	59	28.8
	30001-40000	29	14.1
	40001-50000	21	10.2
	Above 50000	25	12.2

Source: Primary data

The behavior of the customers is not static one, it varies from place to place, time to time and family to family. It is understood from the table 1 that majority of the respondents (37.6) belongs to the age group between 26-30 years, 40.5 percent were male. Majority of respondents (64.4 percents) were married and 35.6 percent were unmarried. The classification of the respondents based on education showed that 45.9 percent were graduates and another 19.0 percent were post graduates and 17.1 percent were professionals and 18.0 percent had school level education.

It is inferred from the above distribution, respondents of younger age group advocate green products, predominately by female. The respondents who were married, graduates engaged in business and profession were found to be environmental conscious, favoring green products purchase.

## II Green products purchase behavior

Purchase is consumer commitment for the products. The respondents purchase behavior of green products and their pattern of purchase are presented in table 2

**TABLE 2**  
**DISTRIBUTION OF THE RESPONDENTS BASED ON GREEN PRODUCT**  
**PURCHASE BEHAVIOR**

Variables		No.pf respondents	Percentage
green products	Everyday grocery	50	24.4
	Healthy and beauty	54	26.3
	Pet products	21	10.2
	Paper products	30	14.6
	Cleaning and households	34	16.6
	Electric appliances	16	7.8
Actual buyer	Head of the households	104	50.7
	Elders	33	16.1
	Spouse	21	10.2
	Members in the family	47	22.9
Reason for purchase	Competitive price	62	30.2
	Brand name	40	19.5
	Functional value	22	10.7
	Quality	37	18.0
	Environment	44	21.5
Importance of 'green' characteristics	Yes	139	67.8
	No	66	32.2
Willingness to pay	More	111	54.1
	Not	94	45.9
Willingness to pay more	5%	11	5.4

	10%	42	20.5
	15%	50	24.4
	Above 20%	8	3.9
Identification of green products	Company websites	59	28.8
	Brand name	59	28.8
	Advertisement	53	25.9
	Label	34	16.6
Frequency of use	Rarely	65	31.7
	Occasionally	88	42.9
	Often	52	25.4
Motivation to buy	Health benefit	57	27.8
	Price	51	24.9
	Trail offers	46	22.4
	Increased availability	51	24.9
Awareness of “green shops”	Yes	129	62.9
	No	76	37.1
Naming of green products	One	61	29.8
	Two	92	44.9
	Three	45	22.0
	Above three	7	3.4
Reason for purchasing	More conscious about environment issues	90	43.9
	Wanted to try	41	20.0
Product to disposal behavior	Not to cause any damage to the environment	78	38.0
	Follow the disposal	39	19.0
	Donate to charity	33	16.1



	Exchange for new products	25	12.2
	Reuse	30	14.6
Impediments to buy green products	Product availability	63	30.7
	Far location of the shop	35	17.1
	Product appearance	26	12.7
	High price	36	17.6
	Not familiar	45	21.9

Source: Primary data

Consumer behavior is shaped to the large extend by external or social factors such as family relationship, cultural and other aspects of external environment. Awareness of these influence can help marketers to think, feel or act similarity separate them into unique market segments. The most popular green products which were purchased by the respondents includes health and beauty products (26.3 percent) everyday grocery (24.4 percent) cleaning households products (16.6 percent), disposable and recyclable paper products (14.6 percent), pet products (10.2 percent) and electrical appliances (7.8 percent).

The actual buyers for green products were mostly the head of households(50.7 percent), family members (22.9 percent), elders (16.1 percent). The reason to buy green products as stated by the respondents were competitive price(30.2 percent),concern for environment(21.5 percent),importance to brand (19.5 percent),product quality (18.0 percent)and functional value (10.7 percent).

Majority of respondents gave importance to 'green' characteristics while shopping for households needs and remaining 32.2 percent of the respondents not given importance to green characteristics.

Among all the respondents' majority (54.1 percent) were willing to pay 'more' towards price on green products than the conventional products and remaining 45.9 percent were not willing to pay for green products of the respondents. Who were willing to pay more price ,24.4 percent were willing to pay 15 percent more, 20.5 percent were willing to pay 10 percent were more,5.3 percent were willing to pay 5 percent were more and remaining 3.9 percent were willing to pay above 20 percent of the price of the traditional products. About 45.9 percent of the respondents who were not willing to pay more.

Wider information availability would enhance knowledge on green products among the respondents. The respondents surveyed, stated that they derived knowledge on green products through the company websites(28.8 percent) with brand name, through advertisement 25.9 percent and remaining 16.6 percent through product label. With regard to frequency of purchase

of green products, 42.9 percent of the respondents purchased green products occasionally, 31.7 percent purchased green products rarely and about 25.4 percent of the respondents very often.

The motivation to buy green products were reasonable price (24.9 percent) increased availability (24.9 percent), health benefit (27.8 percent) and remaining 22.4 percent of respondents liked trail offers. Awareness is major promotion tool. The awareness facilitates the viewers to understand the message by visual sense. Regarding awareness in the existence specialty shops for green products, 62.9 percent of the respondents have awareness about specialty shops dealing with 'green' products and remaining 37.1 percent have no awareness about such shops.

If consumers buy green products, they have known about green product names. Majority of the respondents (44.9 percent) know names of two green product, 29.8 percent of the respondents knew name only one product, another 22.0 percent knew the name of three green products and remaining only 3.4 percent were knew name of three green products and above.

Green consumption behavior is so comprehensive to over all aspects of activities that do not harm environment right from production, consumption and disposal after use. This type of behavior is tested with the selected respondents. The respondents (38.0 percent) that disposed after use not cause any damage to the environment, 19.0 percent of the respondents in a way it did donated reusable container to charity, exchanged with the new product (12.2 percent), 14.6 percent were reused them.

The respondents were asked to state the implements in buying green products. Majority of the respondents 30.7 percent felt the product unavailability of needed green products, 17.1 percent stated far location of the shop, (17.6 percent) were high price, product appearance (12.7 percent), and 21.9 percent were not familiar

The analysis of green products purchase behavior reveals that the majority of the respondents looked for 'green' characteristics in the product purchased. The most popular green products purchased were health and beauty products and every day groceries. The active buyers being the head of the household and they aware of the location of specialty shops dealing with green products. This indicates the perception of the respondents in associating environment consciousness for their own health and safety.

The functional value and competitive pricing were the reason for such purchase. The respondents were willing to pay for green products the price above 15 percent of the conventional products of the same kind. Green products were largely identified from the information presented in the web site of the manufacturer and with the brand name. the environment consciousness is the criteria for buying green products. The product disposal behaviors of the respondents confirm to the waste disposal behavior of three R's namely recycle, reuse and replace.

### **III Environment attitude of the respondents**

Global environment problems of shrinking natural resources, pollution and population and population growth challenge the ways of people with an increasing sensitivity concern for the environment, the ecocentric New Ecological Paradigm (NEP) has emerged. The NEP is based on (i) high valuation of nature, (ii) generalized compassion toward other species, other peoples and other generations, (iii) careful planning and acting to avoid risks to humans and nature (iv)

recognition that there are limits to growth to which humans must adopt, (v) new society with cooperation, openness and participation and (vi) consultative and participatory new politics emphasizing on fore sight and planning (Milbrath 1984).

**TABLE 3**  
**ENVIRONMENT ATTITUDE OF THE RESPONDENTS**

<b>Environment Attitude of the Respondents</b>	<b>Mean</b>	<b>Standard Deviation</b>
Approaching the limit of the number of people the earth can support	4.8146	0.4899
Human have the right to modify the natural environment to suit their needs	4.3707	0.6709
When humans interfere with nature, it produces disastrous consequences	3.9073	0.8082
Human ingenuity will insure that they do not make the earth unlivable	3.4293	1.1886
Humans are severely abusing the earth	3.6878	0.8689
Earth has plenty of natural resources if just learn how to develop them	3.7610	0.9163
Plants and animals have as much right as humans to exist	3.7951	1.0418
Balance of nature is strong enough to cope with the impacts of modern industrial nations	3.7220	1.0270
Despite special abilities, human are still subject to the laws of nature	4.4878	0.7182
Ecological crisis facing humankind has been greatly exaggerated	4.0000	0.7605
Earth is like a spaceship with very limited room and resources	3.7610	0.8083
Humans were meant to rule over the rest of nature	4.0146	0.9573
The balance of nature is very delicate and easily spot	3.7610	0.8144
Humans will eventually learn enough about how nature works to be able to control it	3.6488	0.8652
If things continue on their present course, soon there will be a major environmental catastrophe	4.220	1.0096
Over all mean score	3.95	

Source: Primary data

The environmental view of the respondents were determined by the mean score computed the mean score for fifteen items was to be found to be 3.95 which indicate that overall orientations of the respondents falls at the Pro-NEP scale. The strong view on Pro- NEP was expressed by significant amount of respondents (3.92) whereas almost equally (4.0) a strong view was expressed in favor of socially accepted behavior which is against views in environment.

The examination of the different dimensions of environmental attitude of the respondents reveals that they do agree with 'limits to the population growth that the earth can support' (4.81), and "irrespective special abilities human are subject to laws of nature' (4.48). The great majority of the respondents agreed with the statement of 'abuse of earth for their personal needs' (4.37), 'economic growth which indicates that the economic needs overweight the natural environment'. The humans abuse of earth if continues on their present course it will be bad to ecological catastrophe (4.12).

#### Concerned about environmental issues

The new ecological paradigm statement, adopted above should include contextual items on environmental concerns such as global climate change, air pollution, water pollution, natural resources depletion, reduction in bio- diversity and waste generation and sustainable development (Nazmeya Erdogan 2009). Thus the following section devoted to respondents concern on environmental issues.

**TABLE 4**  
**CONCERNED ABOUT ENVIRONMENTAL ISSUES**

<b>Environmental issues</b>	<b>Mean</b>	<b>Standard deviation</b>
Waste generation	2.6878	1.2046
Air pollution	3.6341	1.2037
Climate change	3.7268	1.1477
Water pollution	3.4780	1.2970
Natural resource depletion (forest energy)	3.7561	1.1066
Genetically modified organization	3.9073	1.1825
Noise	3.3512	1.2809

Source: Primary data

The respondents regarding environmental issues as indicated by the mean score concerned about genetically modified organization (3.90), natural resource depletion (3.7), climate change (3.72), waste generation (3.68), noise (3.35), water pollution (3.47), and air pollution (3.63).

#### IV. Perception on Environment

Consumer perception on environmental issues is expected to contribute to the formation of the overall perception about green products and green purchasing behavior (Dobson 2007). With

increasing a awareness of consumers about environmental issues, the effect of consumer perception on green purchase behavior has a major role on companies' strategic orientation.

**TABLE 5**  
**PERCEPTION ON ENVIRONMENT**

Perception on Environment	Mean	Standard Deviation
I care deeply about reducing my carbon footprint and an adjusting my behavior to be environmentally friendly	4.4683	0.7953
I am concerned about the environment, however, I have not really changed my behavior due to environmental concerns and still buy products that are not necessarily environmentally	3.4780	0.9930
I am learning about environment concerns and made changes in my behavior and/or purchasing habits	3.6585	0.9602
I have not adjusted my behavior or purchase patterns for environmental reason even though I acknowledge that there may be environment problems	3.8049	1.1678
I do not really care if there are environmental problems	3.9610	1.3130
I read the labels to see if the products are environmentally safe	3.9317	0.9677
I know the plastic bags take many years	3.7220	0.8318
I am very concerned about the air pollution and the problems of ozone depletion	3.9122	0.9456
I use environmental safe soaps and detergents	3.7951	0.8671
I reuse plastic bags or use environmentally friendly bags	3.6049	0.8489
I prefer to buy durable goods which do not harm environment	3.7951	1.0742

Source: Primary data

From the mean score it is inferred that the highest mean score (4.4683) reflects the perception of the respondents on environmental carbon foot print and adjusting that their behavior to be environment friendly. The next highest mean score (3.91) was obtained for the respondents concern about air pollution and the problems of ozone depletion and prefer to buy durable goods which do not harm environment(3.97), and due attention was given to read products labels to understand its environmental impact(3.96) plastic bags.

### V Perceived Consumer Effectiveness

Perceived consumer effectiveness measures the individual's belief that actions make a difference in solving problems (Ellen, Weiner 1991). Perceived consumer effectiveness "the evaluation of the self in the context of the issue"(Berger and Corbin 1992), differs from an attitude that reflects an evaluation of an issue(Tesser and Shaffer 1990). The self- efficiency beliefs may influence the likelihood of performing green purchase behavior, PCE for environmental issues is also distinct from environmental concerns or attitudes and make a unique contribution to the prediction of environmentally conscious behavior such as green purchase.

**TABLE 6**  
**PERCEIVED CONSUMER EFFECTIVENESS OF THE RESPONDENTS**

Perceived Consumer Effectiveness	Mean	Standard Deviation
I am very concerned about the problem of pollution in general	4.4780	0.7513
I feel enthusiastic about making environmentally friendly decisions	4.0780	0.7500
I believe that environmentalist make a lot of exaggeration about environmental problems	2.2878	0.8045
Consumers should be interested in the environmental consequences of the products by purchase	3.8829	0.8436
I am excited about the new green products on the market	3.5707	0.8917
I am interested in learning more environmental issues and solutions	3.8878	0.9762
I feel guilty that I do not buy more environmentally friendly products	3.7756	1.0518

Source: Primary data

The respondents are more concerned about the problems of pollution in general (94.47), enthusiastic in taking environmental friendly decision (4.07), interested in learning more environmental issues and solution (3.88), consumers should be interested in the environmental consequence of the product they purchase (3.882) and felt guilty for not buying environmental friendly products (3.77). The perceived consumer effectiveness reflects the value that respondents individually uphold in making purchase

### VI Green purchase behavior attitude

Business and consumers today confront with one of the biggest challenges to protect and preserve the earth's resources and the environment; they have become more concerned with the natural environment and are realizing that their production and consumption purchasing behavior will have direct impact on the environment (Laroche, Bergeron 2001). The product attributes

play a very important role in product development since they affect consumer product choices and help marketers of satisfy customer's needs, wants and demands

**TABLE 7**  
**PURCHASE BEHAVIOR ATTITUDE OF THE RESPONDENTS**

<b>Purchase Behavior Attitude</b>	<b>Mean</b>	<b>Standard Deviation</b>
I buy green products to do something good for the products	4.5366	0.7241
I think I should use products that are safe for the environment	4.1951	0.6795
I rarely notice advertisement about environmentally friendly products	3.9707	0.6995
I feel personal, moral obligations to read and compare package labels for environmentally safe ingredients when I shop	3.8049	0.8917
I have switched brands for ecological reasons	3.8341	0.9192
I feel obligated to buy environmentally friendly products for my household	3.8098	0.8448
I often talk to my family and friends about various environmentally friendly products and activities	3.9024	0.9342
I am willing to change my buying habits to have a position impact on the environment	3.7756	0.8902
I feel angered that the govt. does not do more to help control pollution	3.8341	1.0534

Source: Primary data

The purchase behavior attitudes score of the respondents showed and expressed that the respondents were more conscious about buy 'green' products is to do something good for the planet (4.53), rarely notice advertisement about environmental friendly products (4.30), should use products that are safe for the environment (4.19), environmental issues are blown out of proportion (3.97) and prepared to walk to dispose the waste to the nearest recycling bin (3.90). The purchase behavior attitude reflects the values of the respondents while making purchase.

## **VII Regression Analysis of Green Purchase Behavior**

The extent of green consumption behavior and the factors influenced in measured as predictor variables is explained by Multiple Regression analysis. Regression analysis was applied to find the effect of several personal and attitude towards green purchase related factors on the overall Green Consumption Behaviour score of the respondents. The dependent variable Y= Green Product Purchase Behaviour. The following eight independent variables were identified to be included in the model, the

$X_1$ = Age



$X_2$ = Marital status

$X_3$ = Educational Qualification

$X_4$ = Monthly income

$X_5$ = Concern about Environment Score

$X_6$ = Perception Score

$X_7$  = Perceived Consumer Effectiveness Score

$X_8$  = Purchase Behavior attitude score Multiple Regression is mainly building an equation wherein the predictor variables coefficients are found out. Multiple Regression equation is in the form of

$$Y = a_0 + a_1X_1 + a_2X_2 + \dots + a_nX_n$$

Where Y, the dependent variables,  $a_0$ , constant  $a_1, a_2, \dots, a_n$  are the regression coefficients for the independent variables  $X_1, X_2, \dots, X_n$  respectively

The results are presented in the table

**TABLE 8**  
**MULTIPLE REGRESSION ANALYSIS FOR OVERALL GREEN PURCHASE**  
**BEHAVIOR SCORE**

Independent variables	Regression Coefficients (B)	Std. Error	t
Constant	25.663	3.951	
Gender	0.00979	0.607	0.016
Age	0.338	0.277	1.220
Marital status	-0.447	0.742	-0.602
Educational Qualification	0.0717	0,318	0.226
Monthly income	0.0722	0.238	0.304
Concern about Environment score	0.0391	0.059	0.660
Perception score	0.310	0.069	4.486
Perceived Consumer Effectiveness Score	0.198	0.127	1.566
Purchase Behavior Attitude Score	0.278	0.080	3.483

\*\*significant at 1 % level NS -not significant

R	R Square	F
0.632	0.400	14.415**

Multiple R given in the table below the regression table is the multiple correlation coefficient of dependent variable with the group of independent variables included in the analysis. The R value indicates that a good correlation (0.632) exists between the dependent variables (overall green Consumption Behavior Score) and the set of independent variables. Next given is R square which when expressed in percentage, explain that forty percent of the variations in the Overall Green Consumptions Behavior score and which is due to the 9 predictor variables in the equation. Next given is F value (14.415). the value is F- statistic, calculated for R, used to find whether R value is significant or not. The associated significance level ( $P < 0.01$  given as \*\*) indicates us that R is fairly significant at one percent level.

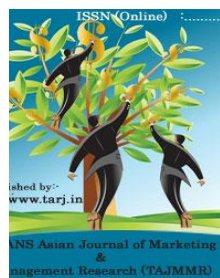
## CONCLUSIONS

Though consumers are willing to purchase green products, many organizations still behind the need of the eco- friendly society. The consumers who are environmentally conscious are more likely to purchase green products. Traditional product attributes such as price, quality and brand are still the most consider when making green purchase decisions. The findings of the study is that the overall green consumption behavior the respondents were highly influenced by environmental attitude, green product purchase behavior, perception on environment, and perceived consumer effectiveness.

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## ASSESSMENT OF MGNREGA IN ENHANCING EMPLOYMENT AND INCOME OF TRIBALS IN KARAMADAI BLOCK IN COIMBATORE DISTRICT

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### ABSTRACT

*Poverty alleviation has been one of the guiding principles of the planning process in India. The poverty ratios for STs are significantly higher compared to general population. A number of rural development programmes have been formulated and implemented from time to time to eradicate poverty. The effectiveness and impact of the development programmes have not been thoroughly evaluated in the country except in a few pockets. The MGNREGA is the latest in a series of poverty alleviation programmes undertaken by the government. The present study attempts to evaluate the impact of MGNREGA in enhancing employment and income of the tribal population in Karamadai block of Coimbatore district. From the universe consisting of all tribal households residing in the Tholampalayam village in Karamadai block in Coimbatore district about 100 sample households were selected. The study found that under the MGNREGA scheme the sample beneficiaries have marginally gained in terms of better employment opportunities and increased days of employment, while the benefits in terms of real income has been very modest.*

**KEYWORDS:** *Poverty, marginally, opportunities, disparity, social exclusion, poverty, Unemployment*

## INTRODUCTION:

Inclusive growth is a process which yields benefits and ensures equality of opportunities for all. i.e. equitable distribution or growth with social justice. Despite faster and inclusive growth strategy, the country is experiencing exclusion in different forms like regional disparities, sectoral disparity, social exclusion, poverty, unemployment etc., hence inclusive growth is essential to bridge the gap between divided sections of the society.

Tribal communities constitute an important segment of Indian society. For centuries, the tribal groups have remained outside the realm of the general development process due to their habitation in forests and hilly tracts. After independence, Government of India has scheduled the tribal groups in the Constitution and provided special provisions for their welfare and development. There are about 654 ST communities across the States in India and 75 of the STs are most backward and are termed as Primitive Tribal Groups.

According to the 2011 Census, the population of STs is 104.3 million constituting 8.6 percent of the total population of the country. The poverty ratios for STs are significantly higher compared to general population in 2009-10. As against 34 percent of all population living below the poverty line in the rural areas, 47 percent of ST population lived below the poverty line.

Poverty alleviation has been one of the guiding principles of the planning process in India. The role of economic growth in providing more employment avenues to the population has been clearly recognized. The various dimensions of poverty relating to health, education and other basic services have been progressively internalized in the planning process. Central and state governments have considerably enhanced allocations for the provision of education, health, sanitation and other facilities which promote capacity-building and well-being of the poor. Special programmes have been taken up for the welfare of scheduled castes (SCs) and scheduled tribes (STs), the disabled and other vulnerable groups.

A number of rural development programmes have been formulated and implemented from time to time to eradicate poverty. Despite these initiatives, the tribal populations are lagging behind the rest of the population. The MGNREGA is the latest in a series of poverty alleviation programmes undertaken by the government, which would have a beneficial impact on health, education and other determinants of social welfare in tribal areas.

## MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE SCHEME (MGNREGA)

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is an Indian job guarantee scheme, enacted by legislation on August 25, 2005. The scheme provides a legal guarantee for one hundred days of employment in every financial year to adult members of any rural household willing to do public work-related unskilled manual work at the statutory minimum wage of Rs.120 per day. The original version of the Act was passed with Rs.60 per day as the minimum wage that needs to be paid under MGNREGA. However, a lot of states in India

already have wage regulations with minimum wages set at more than Rs.100 per day. MGNREGA's minimum wage has since been changed to Rs.120 per day. Now the government of Tamil Nadu has increased the wage to Rs.136 per day. This act was introduced with an aim of improving the purchasing power of the rural people, primarily semi or un-skilled work to people living in rural India, whether or not they are below the poverty line. Around one-third of the stipulated workforce is women.

The law was initially called the National Rural Employment Guarantee Act (NREGA) but was renamed as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) by the government order of S.O. 1860 (E), dated 30th July, 2010. MGNREGA was launched on February 2, 2006 from Anantapur in Andhra Pradesh and initially covered 200 "poorest" districts of the country. The Act was implemented in phase manner – 130 districts were added in 2007–08. With its spread over 625 districts across the country, the flagship program of the UPA Government has the potential to increase the purchasing power of the rural poor, reduce distress migration and to create useful assets in rural India. It is also expected to enhance people's livelihood on a sustained basis, by developing the economic and social infrastructure in rural areas. (Sivasankari et al., (2012))

### EARLIER STUDIES:

**Amita Shah and Sajitha (2008)** examined the status of poverty and multiple deprivations among tribal communities in the state and explore policy options for strengthening their livelihoods through a combination of forest and non-forest based interventions. The study identified that shortage of food in tribal households was severe in 43 tribal dominated districts compared to non-tribes. Also tribal households as casual labourers have 36 percent higher poverty score than those with subsistence cultivation. The study reveals that presence of forest villages has a significant positive correlation with proportion of vulnerable households in the taluks. This reinstated the importance of forest based livelihood options and communities' entitlement to the resources in mitigating poverty among tribals in the state.

**Sundara Rao and Lakshmana Rao (2010)** examined the occupational and employment pattern, levels of income and expenditure, the incidence of poverty and indebtedness together with other socio economic characteristics of Kondh, Porja, Bagata and Konda Dora tribes with different relational aspects in the interior areas of Paderu and Chintapalle mandals in the Visakhapatnam district. The analysis relating to the factors determining the intra tribe variations in the relative socio economic status among the selected PTGs revealed that, the relatively higher extent of the social backwardness of the Kondh PTG households was much determined by their demographic variable family size (57 per cent), their poor levels of literacy (39 per cent) and low level of calories intake which was determining their health status(28 per cent) when compared to the other selected PTG Porja tribe households in the study area. The other variables annual income or work participation rates are not able to influence their relative poor economic status when compared to the selected households of the Porja PTG households in the study area.

**Jha Rewati Raman (2011)** examined the impact of MGNREGA on generation of employment, development of assets and provision of income to the rural people of Bihar in general and the district Darbhanga in particular. The study was based on the secondary data collected from



various published sources for the years 2008–09, 2009–10 and 2010–11. The percentage of expenditure on wages under MGNREGA works had been quite substantial during the years under study, 63 to 67 per cent in Bihar and 60 to 69 per cent in the Darbhanga district and also it revealed that MGNREGA had provided ample opportunities of employment to the women and weaker sections of the society, had increased their income levels and had reduced poverty level in Darbhanga district as well as in Bihar state.

**Sarkar Pratttoy et al., (2011)** examined the socio-economic impact of MGNREGA on the rural poor who were mainly comprised of small and marginal farmers and agricultural labourers. The study revealed that significant changes have taken place in the socio-economic variables like annual per capita income, monthly per capita food expenditure, annual per child expenditure on education, per capita savings, condition of the dwelling houses, access to healthcare facility and possession of other assets or luxury items for those households which were regularly working in the scheme. According to the value of the socio-economic index prepared, it revealed that in the initial year of implementation (2007-08) of MGNREGA in the study area, 43.9 per cent beneficiary households were in poor socio-economic conditions which have gradually improved in the succeeding years and decreased to 32.9 per cent in 2008-09 and further to 18.3 per cent in 2009-10. The study had made some suggestions also for incorporating improvements in the present MGNREG scheme based on the constraints reported by the workers associated with this Scheme.

**Hadke Pradeep (2011)** studied the impact of MGNREGS on reducing rural poverty. The study found that under MGNREGS in 2007–08, about 3.39 crore households were provided employment and 143.5 crore person day employment was generated in 330 districts. In 2008–09 (up to July), 253 crore households were provided employment and 85.3 crore person days were generated. The scheme had enhanced wage earnings, leading to strengthening of the livelihood resource-base of the rural poor in India. The programme has depicted high work participation of marginalized groups like SC/ST (57per cent) and women (43per cent) in 2007–08.

**Shenbagaraj and Arockiasamy (2013)** analyzed the impact of MGNREGA in increasing the employment and earnings of households in Thoothukudi district. The study had used only secondary data available through the DRDA section of the target district. An analysis of the employment generated by MGNREGA in Ottapidaram block shows that number households who have registered for getting employment was very less. The data on the earning of the 7268 beneficiaries in 38 Panchayats of Ottapidaram block reveal that almost 80 percent of the beneficiaries earned less than Rs. 2000/- per year through MGNREGA.

#### **RESEARCH GAP:**

Only a few studies have been undertaken during the past years on tribal development in India. The effectiveness and impact of the development programmes have not been thoroughly evaluated in the country except in a few pockets. Hence, in the present study an attempt was made to evaluate the impact of MGNREGA in generating employment and in improving the level of income of the tribal population in Coimbatore District.



## OBJECTIVES

The specific objectives of the study are:

- \* To examine socio – economic status of the selected respondents
- \* To identify the factors which determines the occurrence and non – occurrence of poverty among the sample household and
- \* To assess the improvement in employment and income of the MGNREGA beneficiaries.

## HYPOTHESIS

In the course of the study, the following hypotheses were examined:

- ❖ Family size, occupation, family income, per capita expenditure, gender and literacy level were the major factors which determine the poverty status of the households.
- ❖ MGNREGA scheme has created more employment opportunities for the tribal population.

## METHODOLOGY

Multi-stage sampling technique was adopted in the selection of the sample households. In the first stage, Tholampalayam Panchayat was selected since nearly 40 percent of the population belongs to scheduled tribe and MGNREGA was in operation. The universe of the study consisted of all tribal households residing in Tholampalayam village in Karamadai block in Coimbatore district. In the second stage, out of 24 villages in Tholampalayam panchayat, 11 villages were selected. In the third stage from these 11 villages, 150 households were selected by adopting purposive sampling technique as not all the households were willing to co-operate with the investigator and due to time constraints. Hence the investigator approached only those households who were the beneficiaries of MGNREGA scheme and who were willing to cooperate and supply the needed information. Relevant and required data for the present study were collected from primary sources by administering an interview schedule to the selected households. The field investigation and data collection for the study was carried out during the period February – March 2012. Data collected were tabulated and analysed for the purpose of giving precise and concise information. Besides, percentages and graphs, following techniques were used.

## EMPIRICAL FINDINGS

### I. SOCIO – ECONOMIC STATUS:

#### DISTRIBUTION OF HOUSEHOLDS:

Out of 150 households surveyed in Tholampalayam panchayat 40 (27 per cent) households belonged to BPL families and the remaining 73 per cent were APL families.

#### Religion

Data pertaining to religion of the respondents unravel that a majority (98 per cent) of the respondents were Hindus, followed by Christians (2 per cent). Income-wise analysis also reveals that 97 per cent

APL households belonged to Hindu religion and negligible proportions (3 per cent) were Christians. However, all the respondents belonged to Hindu religion among the BPL households.

### **Type of Family**

Information relating to type of family of the respondents reveals that a majority (88 per cent) of the respondents belonged to nuclear family and remaining 12 per cent belonged to joint family. Nuclear family dominated both among the BPL and APL households. Modernization and disintegration of joint family system has paved the way for emergence of nuclear family among the tribal households.

### **Marital status**

Data relating to marital status highlights that 85 per cent of the respondents in the BPL households were married and 15 per cent respondents were widows. In the case of APL, 92 per cent of the respondents were married, 7 per cent of the respondents were widows and 1 per cent of the respondents were unmarried.

### **Male and female headed**

Out of 150 households surveyed 93 per cent were headed by male member and the remaining 7 per cent had female as the head of the family. The proportion of female headed households was more (13 per cent) among the BPL households when compared to APL households (5 per cent). The death/discretion by the spouses may have forced the women to take care of their families. But in more than 4/5<sup>th</sup> of the households, both among the BPL and APL, the households were headed by male members.

### **Family Size**

Information gathered regarding the size of household of the respondents highlights the single largest group of the respondents for both BPL (93 per cent) and APL (80 per cent) households have been formed by those having less than 4 members. About 8 percent of the BPL households and 20 per cent of the APL households have been formed by more than 5 members. The average size of the family was marginally higher (3.73) for APL households than for the BPL households (2.35). Thus the survey reveals that tribal households were practicing small family norms irrespective of their income level.

### **Age Composition of the Household Members**

Data pertaining to age composition of the members in the households of the respondents highlights that the single largest group of the family members in the BPL households (79 per cent) and APL households (84 per cent) were in the active age group of 15 to 59 years. The proportion of members in the age group of less than 14 years was 12 per cent in BPL households and 11 per cent in the APL households. Similarly the proportion of members in above 60 years age group was 8 per cent and 4 per cent respectively in the BPL and APL households. The dependency ratio was significantly higher for BPL households (25.96) when compared to APL households (17.89).

### **Educational Status of the Respondents**

Information concerning the highest level of education of the respondents unravels that among the BPL households 78 per cent were illiterate and 23 per cent were literate. Among the APL households 84

per cent were illiterate and 16 per cent were literate. Thus, the illiteracy was quite rampant both among the BPL and APL tribal households. The low educational status among the tribal households was also highlighted in reports of Planning Commission. (2007).

### Occupation

Information concerning the occupation of the head of the family reveals that 95 per cent of the BPL households were engaged in farm activity while this percentage was 73 per cent among the APL households. About 5 per cent of the BPL households and 24 per cent of the APL households were engaged in non-farm activity. While 4 per cent of the APL households were unemployed, the proportion of unemployed person among the BPL households was nil. Thus the low economic status of the BPL households had driven them to find some jobs to meet their basic subsistence.

### Total Family Income

The analysis of the total family income of the respondents reveals that while majority (88 per cent) of the BPL households belonged to the income bracket of less than Rs. 1500, while 80 per cent of the APL households were earning more than Rs. 2500 per month. The proportion of families earning Rs. 1501 to Rs. 2500 per month was less (5 per cent) among the BPL households than the APL (nearly 11 per cent). Thus the income distribution was highly skewed towards lower income scale for the BPL households and higher income scale for the APL households.

## II. LOGISTIC REGRESSION ANALYSIS:

Logistic regression analysis was used to identify the determinants which determines the occurrence and non – occurrence of poverty among the sample household. The explanatory variables included in the logistic regression analysis include monthly per capita (per person) consumption expenditure of the household (MPCE), family size, dependency ratio, occupation, age of the head of the household, gender of the head of the household, percentage of male literate and percentage of female literate. The parameter estimates of the Logit models are given in Table 1.

**TABLE – 1**  
**LOGIT MODEL ESTIMATED FOR THE SAMPLE HOUSEHOLDS**

S.No	Variables	Coefficient	S.E	Wald	Sig.	Odds ratio
1	Dependency ratio	-0.016	0.009	3.011223	0.083	0.984
2	Family size	-1.243	0.352	12.47314	0.000	3.464
3	Monthly per capita expenditure	0.028	0.007	14.83605	0.000	1.028
4	Occupation	0.430	0.962	0.200194	0.655	1.538
5	Age of the head	-0.054	0.050	1.144009	0.285	0.948
6	Gender of the head	0.382	1.876	0.041543	0.838	1.466
7	Male literates	-1.071	0.562	3.631134	0.057	0.343
8	Female literates	-0.820	0.691	1.404931	0.236	0.441

9	Constant	-15.379	5.269	8.519585	0.004	0.000
10	Log likelihood ratio	46.718				
11	Chi square	127.257*				
12	Nagelkerke R square	0.833				
13	Cox & Snell R square	0.572				
14	Hosmer and Lemeshowtest ( $\chi^2$ test)	1.103				
15	Number of observation	150.000				
16	Classification percentage	93.300				

Source: Estimation based on field survey.

The estimated logit model gives a good fit to the data from a statistical perspective: the  $\chi^2$  value was significant at one per cent level. Nagelkerke  $R^2$  value was 0.833 signifies that 83 per cent of the variation was accounted by the logistic model. Similarly, the percentage of correctly predicted cases was also high at 93 per cent.

The evaluation of the coefficients for statistical significance revealed that the factors family size and per capita expenditure emerged as significant at 1 per cent level based on Wald statistics. While the coefficient of per capita expenditure was positive, the coefficient of family size was negative.

The predicted probability of moving above the poverty line increases with an increase in per capita expenditure and a decline in family size. Every unit increase in per capita income caused the probability of being APL household to increase by 1.028 units, while the increase in family size caused the probability to decline by 3.464 units. The above results demonstrate the need to improve the living conditions of the tribal households by increasing their income which in turn would cause the level of expenditure to increase, and by practicing small family norms.

### III. EMPLOYMENT DETAILS

Occupation-wise, the rural workers are mostly engaged in agriculture and allied activities though secondary and tertiary occupations are slowly emerging as sources of livelihood, depending on nearness to urban centre especially for males. The distribution of head of the family according to their occupation is presented in table 2.

**TABLE – 2**  
**EMPLOYMENT PATTERN OF THE HEAD OF THE SAMPLE HOUSEHOLDS**  
(in percentage)

S.No	Particulars	BPL households	APL household	All
1	<b>Type of employment:</b>			
	(i) Primary activity	85.00	63.60	69.30

2	(ii) Secondary activity	15.00	30.90	26.70
	(iii) Both primary and secondary activity	0.00	5.50	4.00
	<b>Nature of employment:</b>			
3	(i) Throughout the year	15.00	29.10	25.30
	(ii) Seasonal	85.00	65.40	70.70
	(iii) Occasional	0.00	5.50	4.00
4	<b>Days of employment /year, Pre MGNREGA</b>			
	(i) 50 to 100 days	85.00	73.60	76.70
	(ii) 100 to 150 days	15.00	26.40	23.30
5	<b>Days of employment /year under MGNREGA</b>			
	(i) 150 to 200 days	85.00	73.60	76.70
	(ii) 200 to 250 days	15.00	26.40	23.30
5	<b>Wages received from MGNREGA</b>			
	(i) Less than 15000	0.00	0.00	0.00
	(ii) 15000 to 20000	42.50	26.40	30.70
	(iii) Above 20000	57.50	73.60	69.30

Source: Field Survey, 2012

The proportion of workers engaged in the primary activities was 69 per cent for all households. While a majority of BPL (85 per cent) and APL (65 per cent) households had only seasonal job, about 15 per cent of BPL families and 29 per cent of APL families had job throughout the year and 6 per cent of APL households had jobs only occasionally. Thus, most of the respondents did not have a consistent job which may also have aggravated their poverty status.

The days of employment significantly increased after joining MGNREGA compared to before joining MGNREGA. The data reveals that more than 70 per cent of all the households were employed 150 to 200 days per year after joining the employment scheme. More than 90 per cent of all the households received wages above Rs. 2500.

### CONCLUSION:

To sum up, under the MGNREGA scheme the sample beneficiaries have marginally gained in terms of better employment opportunities and increased days of employment, while the benefits in terms of real income has been very modest.

Thus, there is a need to ameliorate the living standards by enhancing their income levels. There is huge potential for using the MGNREGA programme as an approach to reduce the

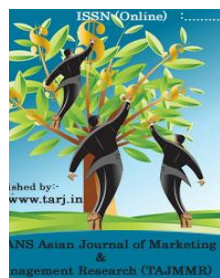
vulnerability in the livelihood of tribal household both the short term and long term. In this context, the following recommendations are made:

- ❖ Investment should be focused more on activities providing benefits at the community level so that the poor derive maximum benefits.
- ❖ Job cards should be issued to the households on the basis of their economic status.
- ❖ Above all, the success of any programme of this nature depends on increase in political consciousness along with awareness among the poorest section of the society.

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## IMPACT OF IGNOAPS ON SELECTED BENEFICIARIES IN COIMBATORE CITY

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### ABSTRACT

*Worldwide population reveals that currently, ageing is predominant in more developed regions (MDRS) in comparison to less developed regions (LDRS). However, the LRDS will also face the same demographic scenario in the not so distant future. Further, the gender dimension of ageing would also be evident by 2050. There will be significantly more women in comparison to men in the higher age cohorts due to increased life expectancy over their male counterparts. The increase in the number of elderly implies the need for supportive socio economic emotional and health infrastructure for which India seems unprepared, as it probably considers that ageing issues and elder care are part of the family domain and not a responsibility of the state (Charan Singh, 2015). Thus, by 2050, India would be in a similar position to today's developed world in terms of the share of the elderly in population (Suvalaxmi Chakrabarti, 2011). In order to improvise the welfare of the senior citizens the government of India has been implementing various policies and programmes from time to time. One such programme to help the senior citizens live a decent living is IGNOAPS. The impact of the various developmental policies programmes and institutional mechanism is to be gauged from the perceptible improvement in the socio economic status of old aged persons. The present study is an attempt to analyze the impact of the IGNOAPS (Indira Gandhi National Old Age Pension Scheme) in Coimbatore City.*

**KEYWORDS:** *Implementing, Demographic, Perceptible, Expectancy, Proportion,*



## INTRODUCTION

In the twentieth century the proportion of population aged sixty or over has increased in all the countries of the world. About 600 million people in the world were aged sixty or over at the turn of the new millennium and their numbers are expected to increase further due to substantial improvements in life expectancy throughout the world. This is particularly due to improvement in public health and medical advances globally. Worldwide 901 million people aged 60 or over is, projected to rise to 1.4 billion in 2030 and to 2.1 billion by 2050. About 67% of older persons currently live in developing countries (World Population Ageing, 2015). It is observed that till 1980s, the developing and the developed world shared the old population in an equal proportion, but currently, the developing countries are ageing faster, with India and China, being the two largest nations in Asia accounting for a significant share of the world's aged people. In India, the proportion of the population aged sixty years and above was 88 million in 2009 and expected to increase to around 315 million by 2050. In view of this situation, the twenty first century may be called as the 'Era of Population Ageing' (Prakash, 1994) with a serious concern for the policy makers all over the world. The number of persons age 65 or older in the world is expected to expand from an estimated 495 million in 2009 to 974 million in 2030. This will result in a world population in which 12 percent will be 65 years of age or older by the year 2030, compared with 7 percent today. Moreover, as per projections for the next ten to fifteen years, more than sixty countries will reach or cross more people aged sixty five and over (He et al., 2005; United Nations, 2007; 2009, Kinsella and Velk off, 2001). A majority of the world's older persons reside in Asia (54 percent), while Europe accounts for the next largest share (24 percent). For many years Sweden had the highest such proportion, but recently Italy became the demographically oldest of the world's major nations. Over eighteen percent of all Italians are aged sixty five or over, with levels approaching or exceeding seventeen percent in Greece, Sweden, Japan, Spain and Belgium. With the exception of Japan, many of the world's oldest countries are in Europe. The US with an elderly proportion of less than thirteen percent in 2000 is rather young by developed country standards and its proportion of elderly will increase only slightly during the next decade reaching twenty percent by the year 2030, still a figure less than in most European countries. Thus, the elderly are projected to increase rapidly and will constitute nearly seventeen percent of the global population in 2050 (Kinsella and Velk off, 2001). In terms of ageing differences across gender the ratio of men to women at older ages is lower in the more developed regions (71 men per 100 women) than in the less developed regions (88 men per 100 women), since there exist large differences in respect of life expectancy levels between the sexes in the former. Further, in terms of longevity also, it is viewed that the world has experienced dramatic improvements. It is observed that of those surviving up to sixty years, universally, men can live another seventeen years, while women an additional twenty years. However, with respect to the less developed countries, men having reached age sixty, can expect only about sixteen more years of life, while women about nineteen years. On the other hand, in respect of the more developed regions, life expectancy at the age of sixty comes to about eighteen years for men and twenty three years for women (Prakash, 1999).

An increase in the old age dependency ratio indicates a situation in which an increasing number of potential beneficiaries of health and pension funds (mainly those aged

65 and over) are supported by a relatively smaller number of potential contributors (those in the economically active ages of 15-64). This trend tends to impose heavier demands on the working age population (in the form of higher taxes and other contributions) in order to maintain a stable flow of benefits to the older groups. Even the sharp decline in youth dependency that has accompanied the increase in old age dependency may not be enough to offset the increased costs, since the relative expense of supporting the old is, in general, higher than that of supporting the young (United Nations, 2013).

Worldwide population reveals that currently, ageing is predominant in more developed regions (MDRS) in comparison to less developed regions (LDRS). However, the LRDS will also face the same demographic scenario in the not so distant future. Further, the gender dimension of ageing would also be evident by 2050. There will be significantly more women in comparison to men in the higher age cohorts due to increased life expectancy over their male counterparts. The below table gives a bird's eye view on the older population.

**TABLE 1**  
**WORLD POPULATION TREND OF 60+ YEARS - 1980-2020 (IN MILLIONS)**

	1980	1990	2000	2010	2020
World	381.2	484.7	608.7	754.2	1011.6
Developed	173.3	203.6	234.6	232.4	308.2
Developing	207.9	281.8	374.1	491.8	703.4
Asia (excl.Japan)	160	218.2	290	377.7	539.9
China	78.6	101.2	131.7	167.9	238.9
India	44.6	60.2	81.4	107	149.7

Source: United Nations, World Demographic Estimate and Projection, 2012.

Until the 1980s, the developing and developed world shared the elderly population in equal proportions. In recent years, developing countries are ageing faster, with India and China being the two largest ageing nations in Asia accounting for a significant share of the world's aged people (Prakash 1994; United Nations 2013).

**TABLE 2**  
**CROSS COUNTRY COMPARISON OF OLD AGE DEPENDENCY**  
**(OLD TO TOTAL POPULATION, IN PERCENTAGE)**

	2015	2030	2050
India	8.8	12.3	18.3
China	14.9	23.8	32.8
US	20.6	25.6	27.0
Japan	33.2	37.5	42.7

Brazil	11.9	18.7	28.9
Indonesia	8.6	14.1	21.1
Germany	28.0	36.4	39.6
World	12.2	16.3	21.2

Source: United Nation Population Division, 2015.

A good 100 million people in India, or a little less than 9% of its population, are over 60 years of age today. As per estimates by the United Nations Population Division, this number will climb to 180 million (over 12% of population) by 2030 and nearly 300 million (over 18%) by 2050. Germany too exhibits the same trend like that of Japan. Its older population will increase by 40% in year 2050. For the rest of the countries the growth of the older population is less when compared to China, Japan and Germany. In China the percentage of old age will increase to 33% by 2050. Similarly, Japan's older population will increase from 33% in 2015 to 43% in 2050.

**TABLE 3**  
**POPULATION IN INDIA ACROSS DIFFERENT AGE GROUPS (IN MILLIONS)**

Age groups	Census 1991	Census 2001	Census 2011
All ages	838.6	1,028.6	1,210.6
0-14 years	312.4	363.5	372.4
15-59 years	464.8	585.6	729.9
60 years and above	56.7	76.6	103.8
Age not stated	4.7	2.9	4.5
% of 0-14 years	37.3	35.3	30.8
% of 15-19 years	55.4	56.9	60.3
% of 60+ years	6.8	7.5	8.6
Decadal Growth Rate of 0-14 years (%)	-	16.4	2.4
Decadal Growth Rate of 15-59 years (%)	-	26.0	24.6
Decadal Growth Rate of 60+ years (%)	-	35.1	35.5

Source: Census of India, 2011.

In the Indian context, available data on demographic trends reveals a gradual decline in the proportion of the young in the population and an increase in proportion of the elderly. The data for the last three decades highlights this development (Table 3). The number of aged people aged people has increased from 56.7 million in 1991 to 103.8 million in 2011. In terms of their proportion to the total population, their share increased from 6.8% to 8.6% over the period. Improved life expectancy and low mortality rates is due to the progress in healthcare facilities are important causes that are assisting this development. The

increase in the number of elderly implies the need for supportive socio economic emotional and health infrastructure for which India seems unprepared, as it probably considers that ageing issues and elder care are part of the family domain and not a responsibility of the state (Charan Singh, 2015).

The ageing process in India is therefore undergoing at a fast rate. Moreover, the transition from high to low fertility is expected to narrow the age structure at its base and broaden the same at the top. In addition, improvement in life expectancy at all ages will allow more old people to survive, thus intensifying the ageing process.

**TABLE 4**  
**NUMBER AND PROPORTION OF ELDERLY IN THE INDIAN POPULATION**  
**BY AGE GROUPS, 1971–2011**

Age/ Year	Number					%				
	1971	1981	1991	2001	2011	1971	1981	1991	2001	2011
60+	21375281	27681981	35607475	47323734	47942512	3.90	4.16	4.27	4.61	4.8
70+	8124272	11358638	14699654	21259869	21831214	1.48	1.71	1.76	2.07	2.7
80+	3200178	4126765	6374511	8038718	8041232	0.58	0.62	0.76	0.78	0.8

Source: Census of India.

Between the years 1971 and 1981, the proportion of 60+ aged people increased from 3.90 percent to 4.16 percent, and that of 70+ aged people from 1.48 % to 1.71 %. The same trend has been shown by the oldest-old group that recorded an increase from 0.58 % to 0.62 % probably due to the development in medical services and availability of support structure. Since 1991, the steady growth of elderly population may be attributed to a steady decline in birth rate. The proportion of 70+ age group increased from 1.76% (1991) to 2.07% (2001), and that of the oldest-old group from 0.76% (1991) to 0.78% (2001). In 2011, the proportion of 60+ aged people increased to 4.8 percent, and that of 70+ aged people 2.7 %. And that of oldest-old group from 0.8 % (2011). Substantial progress in health care facilities is one good reason for this. Both the absolute and relative size of the population of the elderly in India will gain in strength in future. The analysis of current and projected population of India further strengthens the emergence of the gender dimension in ageing. It is evident that the share of the population in case of both males and females in the lower age cohorts will decrease and that in the higher age cohorts will increase in the future. Thus, the old age dependency ratio would increase, and India will start to age much faster by 2035. Thus, by 2050, India would be in a similar position to today's developed world in terms of the share of the elderly in population (Suvalaxmi Chakrabarti, 2011). In order to improvise the welfare of the senior citizens the government of India has been implementing various policies and programmes from time to time. One such programme to help the senior citizens live a decent living is IGNOAPS.

The impact of the various developmental policies programmes and institutional mechanism is to be gauged from the perceptible improvement in the socio economic status of old aged persons.

The present study is an attempt to analyze the impact of the IGNOAPS (Indira Gandhi National Old Age Pension Schemes) in Coimbatore City. The Central government schemes implemented in Coimbatore District in Tamil Nadu to combat poverty are IGNOAPS (Indira Gandhi National Old Age Pension Schemes). IGNOAPS (Indira Gandhi National Old Age Pension Schemes) started functioning in Coimbatore City from its inception in the year 2007. The literature on IGNOAPS (Indira Gandhi National Old Age Pension Schemes) by and large focused on the number of beneficiaries, target achieved amount disbursed per month.

The present study is rather a comprehensive inquiry into the socio economic conditions of the beneficiaries of IGNOAPS (Indira Gandhi National Old Age Pension Schemes). A number of studies have been made at the National and State levels to estimate the efficiency of IGNOAPS (Indira Gandhi National Old Age Pension Schemes) but very few detailed and comprehensive studies have so far been conducted on the impact of IGNOAPS (Indira Gandhi National Old Age Pension Schemes) on beneficiaries at the macro as well as at the micro level. A few empirical studies conducted on the evaluation of IGNOAPS (Indira Gandhi National Old Age Pension Schemes) provide broad and general information about the target achieved and performance of IGNOAPS (Indira Gandhi National Old Age Pension Schemes) in general. Specifically, no detailed economic study has so far been conducted on the socio economic conditions of the beneficiaries of IGNOAPS (Indira Gandhi National Old Age Pension Schemes). The analytical insights are of utmost significance in the particular context of understanding the benefits of IGNOAPS (Indira Gandhi National Old Age Pension Schemes) on the beneficiaries. Keeping in view with the above facts, the present study aims at understanding the socio economic conditions of beneficiaries who had received the pension under IGNOAPS (Indira Gandhi National Old Age Pension Schemes). As no such study has been carried out in Coimbatore City, this research will be of great value to the officials, planners and policy makers in identifying the crucial areas of development of old aged people. The objectives of the study are to analyse the problems faced, benefits received from pension and to identify the satisfaction level of the beneficiaries. The hypothesis tested was that the beneficiaries did not differ significantly in their opinion on the satisfaction level of the scheme. This study makes a variety of conceptual and methodological improvisations over the earlier studies. The study will be of immense importance to the policy makers and NGO's (Non-Government Organisations) involved in old aged related issues. It would provide insights towards designing for proper implementation.

## REVIEW OF LITERATURE

Jos Chathukulam (2012) in his study on "Evaluation of Indira Gandhi National Old Age Pension Scheme (IGNOAPS) in Puducherry" elucidated that more than 60 percent of the beneficiaries surveyed are women. Majority of the beneficiaries (99.09 percent) and non-beneficiaries (85.88 percent) were aware of IGNOAPS (Indira Gandhi National Old Age Pension Scheme). Majority of the beneficiaries (87.77 percent) were satisfied with the scheme and 68.28 percent reported that the scheme have a positive impact on their life. The awareness programmes are very effective in the Puducherry and this may be due to the small geographical size of the State.

In Kerala around 60 percent of the beneficiaries surveyed are women. Majority of the beneficiaries (83.09 percent) and non-beneficiaries (89.52 percent) were aware of IGNOAPS (Indira Gandhi National Old Age Pension Scheme). The awareness programmes are very effective in the state of Kerala; this may be due to the overall development indicators of the state. Majority of the beneficiaries reported that the pension amount is very low and it is disbursed in time. More than 85 percent of beneficiaries are satisfied with the scheme. In rural area 83.81 percent are satisfied and in urban area their size is 93.43 percent. Only less than half of the beneficiaries reported that the scheme has a positive impact on their life. It is revealed that the amount of the pension is very paltry and suggested for an enhancement of the amount so as to meet their daily survival needs.

In Andhra Pradesh about 64.31 percent of the surveyed beneficiaries are females. Satisfaction of the beneficiaries in the scheme and its impact in their life are analysed. Only less than half of the beneficiaries (44 percent) are satisfied with the scheme and on the same time more than 17 percent have not made any comment on the rate of satisfaction. One can presume that the beneficiaries who have kept silent on the issue may be due to the dissatisfaction on the scheme. Same is the case with the question on the impact of the scheme on their life. Majority of the beneficiaries reported that the scheme has no impact on their life.

In Karnataka more than 69 percent of the surveyed beneficiaries are woman. More than 65 percent of the beneficiaries are satisfied with the scheme. In rural area more than 61 percent of beneficiaries are satisfied whereas in urban area 92 percent are satisfied. Around half of the beneficiaries reported that the scheme has a positive impact on their life.

In Tamilnadu more than 66 percent of the beneficiaries surveyed are women. Satisfaction of the beneficiaries with the scheme and its impact in their life were analysed. Majority of the beneficiaries (88.34 percent) are satisfied with the scheme. In other words, the rate of satisfaction of the scheme has been rated as high. And in the case of impact of the scheme on their life more than half of the beneficiaries reported that the scheme has some positive impact on their life. As a social security scheme, IGNOAPS (Indira Gandhi National Old Age Pension Scheme) has been appreciated by the beneficiaries and it is capable to make a positive impact on their life, which is openly expressed. The gap between the level of satisfaction and the impact of the scheme on the life of the beneficiaries is a real challenge. It can be bridged only by increasing the pension amount. In the case of non-beneficiary, 83.09 percent have no source of income. Therefore, they are fully depending on their children for their day to day life.

Pratibha Dabas (2011) in her study on "Implementation of the Old Age Pension Scheme in Ludhiana District of Punjab" revealed that majority, 191 (95.5 percent) knew about the scheme and the remaining 9 (4.5 percent) were ignorant. Almost one third of the elderly 59 (29.5 percent) had the familiarity of the procedure but 141 (70.5 percent) were unaware of the procedure to get their names enlisted for the pension scheme. Sources of information were relatives and friends (48 percent), media (42 percent) and sarpanch (10 percent). The payment schedule was considered irregular as payments were made 3 monthly, 4 monthly and 6 monthly. The amount of pension needs to be considered for the appropriate increase. It was observed that the beneficiaries did not receive the pension regularly.



Balasubramaniam (2010) in his study on “Evaluation of Old Age Pension Schemes in Karnataka” elucidated that the gender trends of beneficiaries show that female beneficiaries across the state IGNOAPS and SSY (Sandhya Suraksha Yojana) are more than male beneficiaries. Most of the IGNOAPS beneficiaries receive their pensions through the post office. However, increasingly, more SSY beneficiaries are availing their pensions through the bank. On the whole, 75 percent of the beneficiaries receive their pension through the post office and 25 percent of the beneficiaries receive their pension through banks. The growth rates in beneficiary enrolments to IGNOAPS and SSY show in general, a rising trend and trend analysis shows that the beneficiary numbers are extremely responsive to changes in policies. This indicates that pension schemes (and direct cash disbursements through the schemes) are in high demand in the state. The comparison of IGNOAPS and SSY shows that growth in SSY across districts and taluks is higher than that of IGNOAPS. Also, the positive correlation of SSY with district/taluk populations is more in comparison with IGNOAPS. While relatively developed taluks have low pension coverage (of projected elderly populations), inter-district and intra-taluk variations within other taluk categories are also large (backward and most backward taluks). These variations are not directly related to their development status. Hence, many districts show taluks which come under the category of high coverage as well as taluks within the same districts that come under the category of low coverage of pension scheme.

Studies enumerated above covered various dimensions. Based on the literature reviewed and inference drawn the researcher found that the earlier studies had not concentrated much on the economic and living aspects of the respondents. Therefore the present study is an attempt to fill this gap by analysing the problems and benefits of IGNOAPS in Coimbatore City.

## PROFILE OF THE STUDY AREA

Coimbatore is one of the most industrialized cities in Tamil Nadu, known as the textile capital of South India or the Manchester of the South, the city is situated on the banks of the river Noyyal, Coimbatore existed even prior to the 2<sup>nd</sup> or 3<sup>rd</sup> century A.D. by Karikalan, the first of the early Cholas. Among its other great rulers were Rashtrakutas, Chalukyas, Pandyas, Hoysalas and the Vijayanagara kings. The small village was also named as ‘Covanputhur’ after the leader of the local group, whose name was ‘Covan’. According to the ‘Cholan Poorva Pattayam’ in the Madras Oriental Manuscript Library, ‘Covanputhur’ was later changed to ‘Coimbatore’. When Kongunadu fell to the British along with the rest of the state, its name was changed to Coimbatore and it is by this name that it is known today, except in Tamil, in which it is called Kovai.

Coimbatore District is a district in the Kongu Nadu region of the state of Tamil Nadu. Coimbatore is the administrative headquarters of the district. It is one of the most industrialized districts and a major textile, industrial, commercial, educational, information technology, healthcare and manufacturing hub of Tamil Nadu. The region is bounded by Tiruppur District in the East, Nilgiris District in the North, Erode District in the North-East, Palghat District of neighbouring state of Kerala in the West and South respectively.

Coimbatore District is one of the most affluent and industrially advanced districts of Tamil Nadu in India. It has the highest GDP (Gross Domestic Product) among the districts of Tamil Nadu,



even ahead of the state capital Chennai. The headquarters of the district is Coimbatore, the second largest city in Tamil Nadu, the higher revenue yielding district in the state next to Chennai.

### SELECTION OF SAMPLE

The sample unit consists of 250 beneficiaries of IGNOAPS. Only those residing in Coimbatore City limits were selected. Coimbatore Corporation is divided into five zones namely North, East, West, South and Central. Based on simple random sampling from each zone about 50 beneficiaries were selected.

### LIMITATIONS

The present study is an exploratory one based essentially on primary data. It is a known fact that primary data has its own limitations. The respondents were reluctant to provide correct details regarding their income, expenditure and savings. The respondents were apprehensive in sharing their health related problems, housing and benefits received from the government inspite of the assurance given by the investigator that the information will be kept confidential.

### FINDINGS

#### PROBLEMS FACED BY THE BENEFICIARIES

The evaluation of a programme/ scheme provides an opportunity to the implementing department to have an unbiased feedback on the problems together with the recommended measures to set the programme on the right track (Government of Jammu and Kashmir, 2012). Table 5 depicts the problems faced by the beneficiaries.

**TABLE 5**  
**PROBLEMS FACED BY THE BENEFICIARIES**

Category	Beneficiaries	Percentage
Huge time involved	53	21.2
Political interference	67	26.8
Irregular payments	78	31.2
Meagre amount of pension	32	12.8
Uneasy disbursement	20	8
<b>Total</b>	<b>250</b>	<b>100.0</b>

Source: Field Survey, 2016.

Among the beneficiaries, 31.2 percent stated that the problems of irregular payments existed, 26.8 percent felt that political interference exists in the scheme implementation, 21.2 percent noted that there was a huge time involved in sanctioning and finalization of cases, 12.8 percent reported that the pension amount was too meagre and 8 percent stated that the disbursement was not up to the mark.

## ADEQUACY OF PENSION

The amount of pension aims at extending a helping hand to the needy old aged destitute. It shares the burden of expenditure which naturally would vary depending upon the priority and immediate needs of the individual beneficiaries. The meagre amount of Pension was regarded as the basic problem of the scheme by 88 percent of the enquired beneficiaries, particularly in view of huge inflationary trends which took place in the recent past ([www.ecostatjk.nic.in](http://www.ecostatjk.nic.in)). Table 6 depicts the adequacy of pension.

**TABLE 6**  
**ADEQUACY OF PENSION**

Category	Beneficiaries	Percentage
Yes	194	77.6
No	56	22.4
<b>Total</b>	<b>250</b>	<b>100</b>

Source: Field Survey, 2016.

About 77.6 percent reported that the pension received is adequate and 22.4 percent reported non adequacy of pension.

### Reason for Non-Adequacy of the Pension Amount

For successful implementation of incentive based schemes, some mechanism is required to be evolved so that assistance provided could be revised on scientific basis periodically, at least after every five years if not on annual basis. Linking the rate of pension with some suitable Index may provide a solution to this problem. The revision in the rate of pension under IGNOAPS is strongly recommended to enable the scheme to achieve the objectives in an appropriate manner. All the stakeholders have regarded the rate of pension as meagre and majority of them have suggested a revision in the pension in view of decrease in the value of money (Government of Jammu and Kashmir, 2012). The impact of various social protection initiatives on aged depends on the quality of social services rendered. Adequate amount of pension will ensure access to health care services, a decent standard of living and respect in the society. Table 7 depicts the reason for non-adequacy of the pension amount.

**TABLE 7**  
**REASON FOR NON-ADEQUACY OF THE PENSION AMOUNT**

Reason for Non-Adequacy of the Pension Amount	Beneficiaries	Percentage
Lack of money to purchase medicine	24	43
Unable to help grand children	17	30
Give to family members	15	27
<b>Total</b>	<b>56</b>	<b>100.0</b>

Source: Field Survey, 2016.

Table describes the reason for non-adequacy of the pension amount. About 43 percent reported that the pension amount lack of purchase to medicine. About 30 percent are stated that the pension amount not able to give grandchildren studies and 27 percent are reported that the pension amount to give their family members.

### USAGE OF PENSION

The amount of pension aims at extending a helping hand to the needy old aged destitutes. It shares the burden of expenditure which naturally would vary depending upon the priority and immediate needs of the individual beneficiaries. This factor also would naturally determine the usage profile of pension money to a great extent (Government of Jammu and Kashmir, 2012). Table 8 depicts the usage of pension of the sample beneficiaries.

**TABLE 8**  
**USAGE OF PENSION**

Category	Beneficiaries	Percentage
Day to day expenses (food)	94	37.6
Future saving	128	51.2
Purchase of medicine	103	41.2
Others (Clothing)	107	42.8
Family use (spend for grandchildren)	96	38.4

Source: Field Survey, 2016. Based on Multiple Response.

About 51.2 percent reported that they are saving for the future. About 38 percent reported that they are fulfilling their needs (clothing), about 35.6 percent reported that they use the pension for their family use like spending for grandchildren. About 29.6 percent beneficiaries reported that they are utilizing the pension for day to day expenses and 29.2 beneficiaries reported to purchase to medicine.

### BENEFITS OF PENSION

The IGNOAPS (Indira Gandhi National Old Age Pension Scheme) is basically a social security scheme with the endeavour to extend a helping hand to those who economically and socially are helpless to survive. It provides an amount of money regardless of the needs and circumstance of the target population. It is a type of burden sharing nature scheme expected to save majority of the targeted population from social and economic disaster (Government of Jammu and Kashmir, 2012). Table 9 depicts the benefits of pension by the sample respondents.

**TABLE 9**  
**BENEFITS OF PENSION**

Category	Beneficiaries	Percentage
Gained self respect	81	32.4
Prevented me from begging	80	32
Social protection	42	16.8
Economic protection	47	18.8
<b>Total</b>	<b>250</b>	<b>100.0</b>

Source: Field Survey, 2016.

About 32.4 percent of the beneficiaries reported that they have gained self-respect, 32 percent reported that they are protected from begging condition, 18.8 percent reported that they are economically protected by getting coverage under the scheme and 16.8 percent reported that they have attained social protection.

#### **SATISFACTION OF THE BENEFICIARIES**

The beneficiary/user satisfaction is regarded as the most important parameter of gauging the successfulness of a scheme/ programme. As such in every evaluation study the satisfaction level of beneficiaries is being measured in respect of different aspects of the scheme (Government of Jammu and Kashmir, 2012).

Table 10 depicts the satisfaction of the beneficiaries.

**TABLE 10**  
**SATISFACTION OF THE BENEFICIARIES**

Category	Beneficiaries	Percentage
Identification of beneficiaries	79	31.6
Sanctioning	56	22.4
Regularity of payment	84	33.6
Easy disbursement	31	12.4
<b>Total</b>	<b>250</b>	<b>100.0</b>

Source: Field Survey, 2016.

Among the beneficiaries, 33.6 percent reported that pension amount are regularly paid, 31.6 percent was satisfied with the identification process, 22.4 percent were satisfied with the method of sanctioning and 12.4 percent with the easy disbursement process.

#### **OVERALL SATISFACTION OF THE SCHEME**

The old age pension is an instrument of poverty mitigation and social protection for the elderly citizens of Lesotho. The allocation of the pension within the household is under control of the

pension recipient, who as the head of the household still is treated with respect and acting as an advisor to other household members. The pension leads to almost all recipients feeling more satisfied with their lives because the pensioner chooses to regard the pension as part of the family income it will have a reduced role in taking the pensioner her or himself out of poverty. However, there will be many benefits for the pensioner in being able to consider that he or she is able to contribute while they live that most precious of assets, a regular, dependable and significant cash flow to household income. The main use of the pension in this respect is to enable the household to have more of its nutrition from the foods that are preferred such as meat, dairy products and eggs, rather the vegetable protein from food such as beans. The use of a significant amount of the pensioner's added income to help with the education and health needs of young people in the family may eventually have some longer term rewards though the creation of better human capital (Nyanguru, 2008). Table 11 depicts the overall satisfaction of the scheme.

**TABLE 11**  
**OVERALL SATISFACTION OF THE SCHEME**

Overall Satisfaction	Beneficiaries	Percentage
Satisfied	123	49.2
Dissatisfied	127	50.8
<b>Total</b>	<b>250</b>	<b>100.0</b>

Source: Field Survey, 2016.

About 49.2 percent of the sample beneficiaries reported that they were satisfied with the scheme and 50.8 percent dissatisfied because the amount provided was very meagre to meet their day to day needs.

#### **KRUSKAL WALLIS TEST**

Kruskal Wallis test was used to determine whether there is a significant association between the variables like gender, age, education, mode of payment and health status with the satisfaction level of the scheme.

**TABLE 12**  
**VARIABILITY IN THE SATISFACTION LEVEL OF THE BENEFICIARIES-  
KRUSKAL WALLIS TEST**

Category	Satisfied	Dissatisfied	Kruskal Wallis X <sup>2</sup>	p value
Age				
Below 70	59 (47.9)	64 (50.3)	0.325	0.568
Above 70	64 (52)	63 (49.6)		
Total	123 (49.2)	127 (50.8)		
Gender				

Category	Satisfied	Dissatisfied	Kruskal Wallis X <sup>2</sup>	p value
Male	43 (34.9)	45 (35.4)	.006	.938
Female	80 (65)	82 (64.5)		
Total	123 (49.2)	127 (50.8)		
Education				
Illiterate	90 (78)	88 (69.2)	2.620	.106
Primary school	9 (7.3)	9 (7)		
Middle school	9 (7.3)	16 (12.5)		
High school	4 (3.2)	9 (7)		
Higher secondary	5 (4)	5 (3.9)		
Total	123 (49.2)	127 (50.8)		
Economic status				
Below poverty line	123 (100)	84 (66)	50.096	.000
Above poverty line	-	43 (33.8)		
Total	123 (49.2)	127 (50.8)		
Mode of payment				
Bank	118 (96)	110 (86.6)	6.737	.009
Home	5 (4)	17 (13.3)		
Total	123 (49.2)	127 (50.8)		
Health status				
Healthy	22 (17.8)	39 (30.7)	5.547	.019
Not healthy	101 (82)	88 (69.2)		
Total	123 (49.2)	127 (50.8)		

Source: Field Survey, 2016.

Those in the age groups of below 70 years (47.9%) were satisfied with the overall performance of the pension scheme, for those above 70 years the satisfaction rate was slightly higher (52 %). However, half of the beneficiaries in the age group of below 70 and above 70 were dissatisfied with the scheme. The association between the age and the satisfaction level was not statistically significant. Around 34 percent of the male and 65 percent of the female were satisfied with the pension scheme. But 35 % of male and 64 % of female beneficiaries were dissatisfied with the scheme. This was not statistically

significant. About 78% of the beneficiaries who were illiterate was satisfied with the scheme but 69% was dissatisfied with it. This association was not statistically significant. Those living below poverty line were satisfied with the scheme but 66% were dissatisfied. Around 33% of beneficiaries who are living above poverty line were dissatisfied with the scheme. The association between economic status and satisfaction level was found to be statistically significant. Majority of the beneficiaries received their pension via bank but half of the beneficiaries with dissatisfied with the disbursement of pension because the banks were not closer to the home. The association between the mode of payment and satisfaction level was found to be statistically significant. Only 24% of the beneficiaries were found to be healthy. Half of the beneficiaries were dissatisfied with the scheme. Due to the ill health they could not travel to the banks to receive the pension. The association between health status and satisfaction level was found to be statistically significant.

### SUGGESTIONS PROVIDED BY THE BENEFICIARIES

The beneficiaries being the prime stakeholders of the scheme were asked to put forth appropriate suggestions for effecting improvements in the scheme enabling it to fulfil the postulated objectives. The implementing department within their resources and jurisdiction might consider these suggestions in the right perspective and act-upon the suggestions for better results (Government of Jammu and Kashmir, 2012). Table 13 depicts the suggestions offering of the beneficiaries.

**TABLE 13**  
**SUGGESTIONS PROVIDED BY THE BENEFICIARIES**

Category	Beneficiaries	Percentage
Enhancement of pension	78	31.2
Transparency in identification	48	19.2
Simplicity of process	11	4.4
Regular payments	82	32.8
Easy disbursement	31	12.4
<b>Total</b>	<b>250</b>	<b>100.0</b>

Source: Field Survey, 2016.

Among the beneficiaries, about 32.8 percent reported that the pension amount should be regular, about 31.2 percent stated that the pension amount should be enhanced, 19.2 percent were of the opinion that identification of pensioner should be transparent, 12.4 percent reported that the pension should be made easily disbursed and 4.4 percent stated that the pension procedure should be made simple.

### CONCLUSION

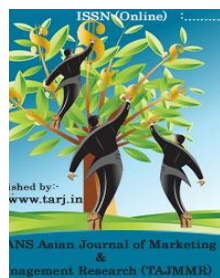
With a decline in the fertility and increase in the expectancy of life, the percentage of the elderly population and their absolute number is increasing day by day. The elderly population in the late



stages of life seeks more attention in terms of social, economic support and proper health care. The increase of demographic aging process in our country has a series of socio-economic problems as well as health problems. In order to improvise the welfare of senior citizens the government of India has implemented Indira Gandhi National Old Age Pension Scheme (IGNOAPS) for elderly to improve their standard of living. But the monthly pension of the elderly is not adequate enough to cater to their day to day needs. Food, clothing and shelter affect the quality of life. Pension received is spent on food and medicines only. The respondents fall under the extremely poor, poor and marginally poor category none come under the vulnerable middle income and high income group. This necessitates the need for better living environment and income. Income was significant in determining the living arrangements of the elderly. If they are economically independent the chances of living alone are more. The number of children significantly influenced the elderly in living alone. Similarly, the elderly with higher education had the tendency to live alone when compared to those who had no or few years of schooling. Efforts should be taken by the government to enhance the pension amount.

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

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## HOLISTIC APPROACH FOR SUSTAINABLE DEVELOPMENT

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### ABSTRACT

*The application of holistic approach to sustainable development requires a dramatic change in the culture of societies. Caring for the planet, safeguarding resources for future generations needs to become a genuine principle guiding the decisions of individuals and communities. The idea of sustainable development as a holistic vision implies fundamental changes at all levels of social, economic, political, and cultural structures, which means a fundamental restructuring of present society. Within this context, sustainable development is that development which allows us to meet the needs and aspirations of both present and future generations always in a concrete social-historic and environmental context without undermining the capacity of nature and cultures for self-regeneration, while giving special attention to the eradication of poverty, social injustice, and inequalities in the relations among nations. Sustainable development requires us to redefine all the principles of industrialization, agricultural production, urbanization, etc., that have given form to the present unsustainable technological civilization. It is a multidimensional model of development which limits economic growth and other human activities to the capacity of nature for self-regeneration, places the improvement of the social and human development as its primary goal, and places respect for environmental quality and the limits of nature at the core of any economic, political, educational, and cultural strategy. "Education can ensure that all citizens, young and old, are knowledgeable about the changes that are needed, capable of envisioning alternative futures, committed to democratic ways of achieving them, and sufficiently skilled and motivated to work actively for change. This is education for a sustainable future". This implies the elimination of all unjust, illegal, and abusive forms of production and distribution of wealth, which produces and reproduces inequality and poverty among people all around the world.*

**KEYWORDS:** Dramatic, Self-Regeneration, Self-Regeneration, Communities.

## INTRODUCTION

The application of holistic approach to sustainable development requires a dramatic change in the culture of societies. Caring for the planet, safeguarding resources for future generations needs to become a genuine principle guiding the decisions of individuals and communities.

The idea of sustainable development as a holistic vision implies fundamental changes at all levels of social, economic, political, and cultural structures, which means a fundamental restructuring of present society. History of mankind is a history of growing numbers, growing consumption and increasingly invasively and destructively technology. Based on the mutual work of these three elements it came and comes to a more and more destructive influence to our planet.

Examples can be identified from the past which is resulting from overusing natural resources, wasting environment – ecological and social balance was broken and people / nations lost their basis of life. Within this context, sustainable development is that development which allows us to meet the needs and aspirations of both present and future generations always in a concrete social-historic and environmental context without undermining the capacity of nature and cultures for self-regeneration, while giving special attention to the eradication of poverty, social injustice, and inequalities in the relations among nations.

## HOLISTIC DEVELOPMENT

The term Holistic Development can be defined as systems perspective for the development of the entire society or country. In other words Holistic development means how the entire society or economy can achieve development as a whole.

## SUSTAINABLE DEVELOPMENT

Sustainable development refers to the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The understanding of sustainable development implies respect for the integrity of nature and for the needs and rights of present and future generations. It implies the rejection of the current blind pursuit of unqualified growth, which is the driving force behind most environmental destruction. Sustainable development requires us to redefine all the principles of industrialization, agricultural production, urbanization, etc., that have given form to the present unsustainable technological civilization.

The basic principles for the formation of a holistic vision of sustainable development are.

1. Sustainable development to take place, there must be interaction and coordination among all of the factors and agents which intervene and act in a locality, region, or country.
2. Sustainable development requires a redefinition of power relations in decision-making among all of the agents acting in the development process: the public and private sectors, international organisms and agencies, local communities.
3. Sustainable development requires, a redefinition of the predominant patterns of distribution of wealth, in such a manner that more equitable forms are adopted, which permit the satisfaction

of the necessities of all persons, and particularly of the most disadvantaged. This implies the elimination of all unjust, illegal, and abusive forms of production and distribution of wealth, which produces and reproduces inequality and poverty among people all around the world.

**4.** Sustainable development requires the recognition of inter-generational equality, which implies the assumption, as an ethical imperative of respect not only for the right of present generations to a healthy environment, but also the right of future generations to inherit from present generations a healthy and ecologically balanced environment.

**5.** Sustainable development requires the establishment of a new international order, which implies a more redistribution of global wealth and opportunities, and a greater equity in relations between nations.

**6.** Sustainable development is possible only if the limits of nature's capacity for regeneration are respected. This principle implies a necessary reduction of economic growth to within nature's limits and capacity for self-regeneration. Thus, to achieve ecological sustainability, respect for the limits of nature should become a moral obligation and a responsibility of all human beings.

**7.** Sustainable development requires that communities be self-sufficient, that people's control over their own lives be increased, and that the social and cultural identity and decision-making capacities of communities be maintained and strengthened.

Thus, the common assumption implicit in all the actions and changes needed for achieving sustainable development in its holistic meaning is the new ethical values for a holistic conception of sustainability must now be respect for the integrity of the environment and all its life forms and vital support systems; respect for the planet's cultural diversity and human dignity and integrity; and equality and solidarity between persons, people and continents.

**A holistic view of “sustainable development” includes:**

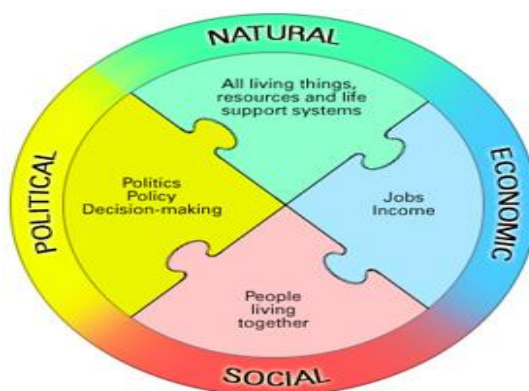
**a) Natural systems** that provide the resources - air, water, soil, food, etc. - that support all life - human and non-human;

**b) Social and cultural systems** that provide family, community and wider support for people to live together in ways that are culturally appropriate

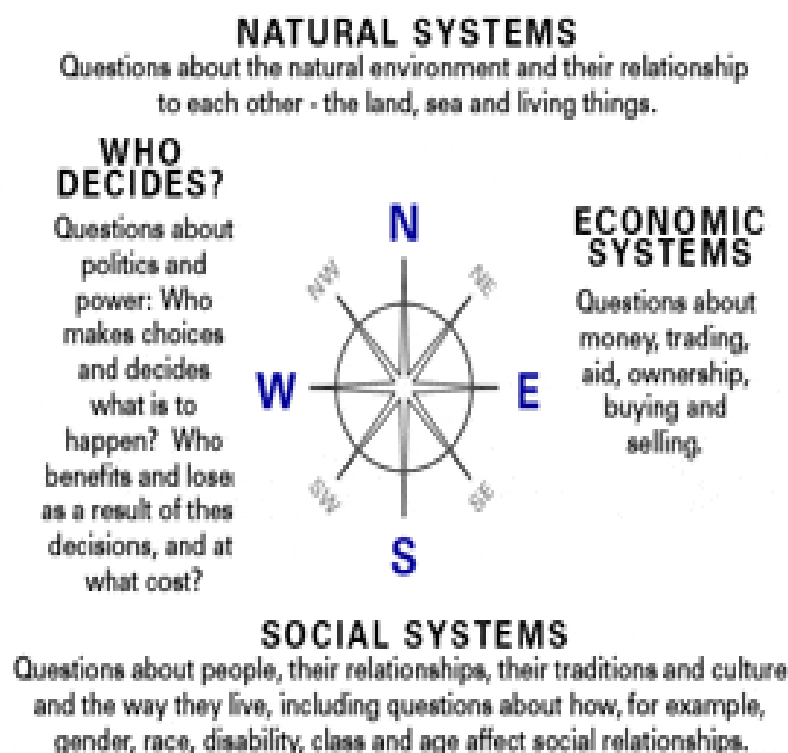
**c) Economic systems** that provide a means of livelihood jobs and income for people.

**d) Political systems** through which social power is exercised to make policies and decisions about the way social and economic systems use resources in the natural environment.

The activity is based on the word 'environment' and shows that it encompasses four systems - natural, social, economic and political systems. This holistic view of the 'environment' is a reflection of what is called 'systems thinking' - a way of thinking that sees all aspects of the world inter-related through patterns of interdependent systems.



This holistic view of 'environment' is sometimes called the 'sustainability compass'.



The 'sustainability compass' has not always been well used - and many processes of development are not pointing to a sustainable future.

A sustainable future will require fundamental changes in people's values and in the way society operates. As the UNESCO paper states:

Achieving sustainability will depend ultimately on changes in behavior and lifestyles, changes which will need to be motivated by a shift in values and rooted in the cultural and moral precepts upon which behavior is predicated. Without change of this kind, even the most enlightened

legislation, the cleanest technology, the most sophisticated research will not succeed in steering society towards the long-term goal of sustainability.

Some of the principles that can help lead us to a more sustainable future include:

- a) **Conservation** - which is needed to ensure that natural systems can continue to provide life support systems for all living things, including the resources that sustain the economic system.
- b) **Peace and equity** - which results when people are able to live co-operatively and in harmony with each other and have their basic needs satisfied in a fair and equitable way.
- c) **Appropriate development** - which is needed for people to be able support themselves in a long-term way. Inappropriate development ignores the links between the economy and the other systems in the environment.
- d) **Democracy** - which provides ways for people to be able to have a fair and equal say over how natural, social and economic systems should be managed?

### **Education: A Force for the Future**

Education has a major role to play as a force for the future. As UNESCO states:

It is widely agreed that education is the most effective means that society possesses for confronting the challenges of the future. Indeed, education will shape the world of tomorrow. Progress increasingly depends upon the products of educated minds: upon research, invention, innovation and adaptation. Of course, educated minds and instincts are needed not only in laboratories and research institutes, but in every walk of life. Indeed, access to education is the *sine qua non* for effective participation in the life of the modern world at all levels. Education, to be certain, is not the whole answer to every problem. But education, in its broadest sense, must be a vital part of all efforts to imagine and create new relations among people and to foster greater respect for the needs of the environment.

“Education can ensure that all citizens, young and old, are knowledgeable about the changes that are needed, capable of envisioning alternative futures, committed to democratic ways of achieving them, and sufficiently skilled and motivated to work actively for change. This is education for a sustainable future”.

Source: UNESCO (1997) *Educating for a Sustainable Future*,

Holistic approach requires the following special attention to be paid:

- a) Identifying policies to address major constraints faced by developing countries
- b) In responding to environmental challenges like financial, technical, institutional and supply side capacities;
- c) Identifying specific capacity building needs of developing countries;
- d) Finding a comprehensive solution to external debt burden of developing countries;
- e) Bringing stability to and cushioning the impact of financial volatility in the rapidly globalizing world;

f) Examining ways to promote market access for the exports diversity.

g) Transferring of environmentally sound technologies as well as their indigenous development.

These elements are critical because they have direct bearing on sustainable development of land and agriculture, trade, investment and economic growth.

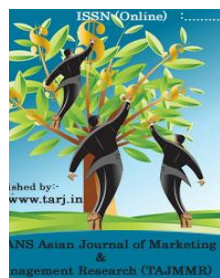
## CONCLUSION

To understand in a holistic form, sustainability is a complex and multifaceted vision of development. It is a multidimensional model of development which limits economic growth and other human activities to the capacity of nature for self-regeneration, places the improvement of the social and human development as its primary goal, and places respect for environmental quality and the limits of nature at the core of any economic, political, educational, and cultural strategy.

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## A STUDY ON FOREIGN EXCHANGE MARKET VOLATILITY IN BRICS COUNTRIES

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### ABSTRACT

*The price of a nation's currency in terms of another currency is referred to as exchange rate. The foreign exchange market is the market where the currencies are bought and sold. This paper investigated the long-term relationship between the BRICS countries foreign exchange markets namely, Brazil, Russia, India, China, and South Africa. The study used annual data from 2012 to 2016. Descriptive statistics, Correlation, ARCH were used for analyzing the objectives. This study aims to analyse the volatility in the BRICS countries Foreign Exchange Market. A higher volatility means that an exchange rate can potentially be spread out over a larger range of values. High volatility means that the price of the currency can change dramatically over a short time period in either direction. Model results indicate that Brazilian agricultural and total exports have been significantly and negatively impacted by own and third country currency volatility, while Chinese and Honduran exports have been positively or not significantly affected. The volatility is measured by the range to which the price of the security may increase or decrease in the Foreign Exchange market. The Exchange Rate rates have a positive effect on the BRICS exchange rate the result of reveal volatility have a positive relationship in the BRICS countries, hence it shows the significant level is positive and its accepted.*

**KEYWORDS:** Foreign Exchange Market, BRICS countries, Volatility

## INTRODUCTION:

The price of a nation's currency in terms of another currency is called as an exchange rate and it can be quoted either directly or indirectly. In a direct quotation, the price of a unit of foreign currency is expressed in terms of the domestic currency. In an indirect quotation, the price of a unit of domestic currency is expressed in terms of the foreign currency. An exchange rate that does not have the domestic currency as one of the two currency components is known as a cross currency or cross rate.

Volatility (in Forex trading) refers to the amount of uncertainty or risk involved with the size of changes in a currency exchange rate. A higher volatility means that an exchange rate can potentially be spread out over a larger range of values. High volatility means that the price of the currency can change dramatically over a short time period in either direction.

On the other hand, lower volatility would mean that an exchange rate does not fluctuate dramatically, but changes in value at a steady pace over a period of time. Commonly, the higher the volatility, the riskier the trading of the currency pair is. Technically, the term "Volatility" most frequently refers to the standard deviation of the change in value of a financial instrument over a specific time period. It is often used to quantify (describe in numbers) the risk of the currency pair over that time period.

## REVIEW OF LITERATURE

The study entitled **"Volatility spillover Effects between Stock prices and Exchange rates in Emerging Economics, Evidence from Turkey"** by Erick LuskeloMwambuli (2014) investigates the volatility spillover effects between exchange rates and stock prices and suggest an existence of short run relationship stock prices and exchange rates in Istanbul Stock Exchange

The study entitled **"Forecasting Stock Market Volatility: Evidence from Six Emerging Markets by "NalinipravaTripathy and Ashish Garg" (2009)** examines time-varying risk and return of six most emerging markets of the world i.e., Brazil, Russia, India, China, South Africa. That concludes that volatility increases disproportionately with negative shocks in stock returns. Hence investors are advised to use investment strategies by analyzing recent and historical news and forecast the future market movement while selecting portfolio for efficient management of financial risks to reap benefits in the stock markets.

The study entitled **"Analysis of the Correlation Structure between Stock and Exchange Rate Markets: An example of China on Asian emerging Markets"** by Ming ChiehWangl& Sook-Hui Lee" (2007) investigates the dynamic correlation between stock and exchange markets to examine the influences of China stock and exchange rate movements on other Asian emerging countries. The test of volatility spillover shows that stock market movements do not affect exchange rate markets, which is a result that does not support evidence that stock market movements influence the exchange rate dynamics

The study entitled **" Exchange Rate Volatility Effects on BRICS Countries Exports"** by **"David Isaias Maradiga Pineda"** (2012) used an export demand model was specified as a VAR dynamic system of exports, World GDP, relative prices, and own or third CERV. The results provide empirical evidence that support the claim for some countries. Model results indicate that

Brazilian agricultural and total exports have been significantly and negatively impacted by own and third country currency volatility, while Chinese and Honduran exports have been positively or not significantly affected.

The study entitled “ **Dynamics of volatility spillover between stock market and foreign exchange market: evidence from Asian countries**” by “**Khalil Jebran**” (2014) examine volatility spillover effects between stock market and foreign exchange market in selected Asian countries; Pakistan, India, Sri Lanka, China, Hong Kong and Japan. The result of this study provide valuable insights to economic policy makers for financial stability perspective and to investors regarding decision making in international portfolio and currency risk strategies.

The study entitled “**Exploring the Stock Market Volatility with BRIC Countries- An Empirical Investigation**” by “**P. Hemavathy and S. Gurusamy**” (2014) develop and examine the conditional volatility model in an attempt to confine the prominent features of volatility in stock markets in BRIC countries. That concludes that higher volatility is both gesture and a vehicle of uncertainty. Credit rating agencies act as driver of the stock market volatility. Credit rating agencies play a significant part in providing one source of information that aids accuracy and market capability, thereby plummeting the imbalance of Information among the stock market investors.

### STATEMENT OF THE PROBLEM

The Stock and Exchange rate Market are linked through the effects of inflation since investment depend on volatility. Thus inflation shocks can usually be expected to lead to a negative correlation between stock and exchange rate market. The volatility is measured by the range to which the price of the security may increase or decrease in the Foreign Exchange market. The Economic development of our Country depends upon the positive relationship between volatility and exchange rates. The present study is an attempt to find out the impact of volatility in foreign exchange market in the BRICS Countries.

### OBJECTIVES OF THE STUDY

- ✓ To analyse the normality of the Foreign Exchange market volatility in BRICS countries.
- ✓ To analyse the stationarity of the Foreign Exchange market volatility in BRICS countries.
- ✓ To analyse the volatility in foreign exchange market in BRICS countries.
- ✓ To summarize the findings, suggestion and conclusion

### HYPOTHESIS OF THE STUDY

NH-1 There is no normality and stationary of the Foreign Exchange rates of BRICS countries.

NH-2 There is no volatility in foreign exchange market of BRICS countries.

### METHODOLOGY OF THE STUDY

#### PERIOD OF THE STUDY:

The study covers a period of five years ranging from 1<sup>st</sup> January 2012 to 31<sup>st</sup> December 2016.

## SAMPLE SELECTION

Foreign Exchange Market of BRICS countries namely Brazil, Russia, India, China, and South Africa were analysed. Brazil, Russia, India, China and South Africa would individually and collectively occupy far greater exchange rate and would be amongst the world's largest exchange rate in the next 5 years. Hence BRICS countries were chosen as sample.

## SOURCES OF DATA

The sample exchange rates are from BRICS countries Foreign Exchange Market. The other relevant information relating to this study was collected from Exchange rate and other RBI websites. E-Views 7 software is used for this analysis.

## TOOLS TO BE USED FOR THE STUDY

The present study has analyzed the following tools testing the performance of the firm

- Descriptive statistics
- ADF
- ARCH

## ANALYSIS AND INTERPRETATION

**TABLE – 1 RESULTS OF DESCRIPTIVE STATISTICS FOR BRAZIL, RUSSIA, INDIA, CHINA, AND SOUTH AFRICA DURING THE STUDY PERIOD FROM 2012 TO 2016**

Countries	Particular	2012	2013	2014	2015	2016
BRAZIL	Mean	0.014157	0.013603	0.00951	91.1762	0.0131
	Std. Dev.	0.029222	0.033331	0.02822	302.251	0.23763
	Skewness	0.037056	-0.12189	-0.1982	2.84605	0.42323
	Kurtosis	2.741938	1.922802	2.13648	9.09999	1.89264
	Jarque-Bera	0.033041	0.559065	0.413783	31.90449	0.89043
RUSSIA	Mean	-0.00027	0.007727	0.05441	0.01381	-0.0179
	Std. Dev.	0.067432	0.015191	0.07145	0.07723	0.03241
	Skewness	1.136285	-0.1317	0.85884	-0.22	-0.7572
	Kurtosis	4.233868	2.147449	2.87235	2.22251	3.03992
	Jarque-Bera	3.064876	0.364936	1.359741	0.365818	1.051996
INDIA	Mean	0.017834	0.012321	0.00105	0.00625	0.000912
	Std. Dev.	0.033569	0.0282	0.01214	0.01176	0.009405
	Skewness	0.541327	0.419125	-0.6016	-0.4741	-0.34844

	Kurtosis	2.703949	2.617475	2.15952	2.56658	2.683172
	Jarque-Bera	0.577403	0.38912	0.987347	0.49819	0.268596
CHINA	Mean	-0.00037	-0.00237	0.0003	0.00477	0.00473
	Std. Dev.	0.002175	0.002572	0.00218	0.01021	0.00797
	Skewness	-0.23971	-0.70372	0.12748	1.68028	-0.298
	Kurtosis	1.71678	2.809672	2.01037	4.92034	1.30564
	Jarque-Bera	0.860062	0.924501	0.478676	6.866314	1.47861
SOUTH_AFRICA	Mean	0.007322	0.015472	0.00478	0.02409	-0.0147
	Std. Dev.	0.027329	0.024985	0.01847	0.02549	0.03075
	Skewness	-0.298514	0.71661	0.12092	0.03869	0.80378
	Kurtosis	2.104139	3.00333	1.85257	1.49348	2.94468
	Jarque-Bera	0.531213	0.941477	0.63025	1.042977	1.185844

Source: Data collected from [www.rbi.org](http://www.rbi.org) And computed using E-Views7.0

**Table – 1** shows the result of descriptive statistics for Brazil, Russia, India, China, and South Africa during the study period. The mean value was highest i.e., 91.1762 for Brazil during 2015. The highest volatility value was 302.2512 for Brazil during 2015. The skewness value was Negative for Brasil during 2013, 2014 and The Kurtosis was all variable in positive. The Jarque – Bera value was normal for Brasil during 2015.

**TABLE – 2 RESULT OF AUGMENTED DICKEY – FULLER TEST OF BRAZIL, RUSSIA, INDIA, CHINA, AND SOUTH AFRICA DURING THE STUDY FROM 2012 TO 2016**

				Cross-	
Country	Method	Statistic	Prob.**	Section	Obs
Brazil	Levin, Lin & Chu t*	-1.90471	0.0284	5	49
	Im, Pesaran and Shin W-stat	-0.77742	0.2185	5	49
	ADF – Fisher Chi – Square	20.0369	0.0289	5	49
	PP – Fisher Chi – Square	29.2775	0.0011	5	50
Russia	Levin, Lin & Chu t*	-3.7965	0.0001	5	49
	Im, Pesaran and Shin	-1.95706	0.0252	5	49

	W-stat				
	ADF – Fisher Chi – Square	20.1604	0.0278	5	49
	PP – Fisher Chi – Square	22.5545	0.0125	5	50
India	Levin, Lin & Chu t*	-5.05242	0	5	48
	Im, Pesaran and Shin W-stat	-3.4614	0.0003	5	48
	ADF – Fisher Chi – Square	29.882	0.0009	5	48
	PP – Fisher Chi – Square	38.127	0	5	50
China	Levin, Lin & Chu t*	3.63873	0.0001	5	49
	Im, Pesaran and Shin W-stat	-1.37643	0.0843	5	49
	ADF – Fisher Chi – Square	15.4869	0.1153	5	49
	PP – Fisher Chi – Square	11.3914	0.3278	5	50
	PP – Fisher Chi – Square	11.3914	0.3278	5	50
South Africa	Levin, Lin & Chu t*	-5.56163	0	5	49
	Im, Pesaran and Shin W-stat	-3.28191	0.0005	5	49
	ADF – Fisher Chi – Square	28.0283	0.0018	5	49
	PP – Fisher Chi – Square	33.4618	0.0002	5	50

Source: Data collected from [www.rbi.org](http://www.rbi.org). And computed using E-Views7.0

**Table – 2** shows the results of Augmented Dickey – Fuller test for Monthly Foreign Exchange Market Volatility in BRICS Countries during the study period 1<sup>st</sup> January 2012 to 31<sup>st</sup> December 2016. The t-statistic value for ADF test at level difference was produced insignificant results.

Hence it is tested with first level difference and attained stationarity at 1%, 5% and 10% levels. It is to be noted that the ADF test provided evidence that the series of stationary for all Countries. Hence it confirms the rejection of Null Hypothesis NH01 “There is no stationarity in the select variables.”

**TABLE – 3 THE RESULTS OF ARCH MODEL FOR EXCHANGE RATE AND INTRADAY VOLATILITY IN THE INDIAN FOREIGN EXCHANGE MARKET FOR BRICS COUNTRY FROM 2012 TO 2016**

Year	Variable	Coefficient	Std. Error	z-Statistic	Prob.
Brasil	2013	0.303086	0.841583	0.360137	0.7187
	2014	-0.418579	1.57527	-0.265719	0.7905
	2015	9.58E-06	0.108342	8.85E-05	0.9999
	2016	-0.023879	0.142061	-0.168088	0.8665
	C	0.013453	0.030955	0.434601	0.6639
		Variance Equation			
	C	0.000366	0.009425	0.038848	0.969
	RESID(-1)^2	0.15	1.243441	0.120633	0.904
	GARCH(-1)	0.6	8.173813	0.073405	0.9415
Russia	2013	0.105261	2.322798	0.045316	0.9639
	2014	-0.222248	0.697579	-0.318599	0.75
	2015	-0.060983	0.481078	-0.126763	0.8991
	2016	0.741559	0.615489	1.20483	0.2283
	C	0.032035	0.033576	0.954103	0.34
		Variance Equation			
	C	-0.000178	0.000724	-0.246438	0.8053
	RESID(-1)^2	0.162885	0.638405	0.255144	0.7986
	GARCH(-1)	0.635508	0.924029	0.687757	0.4916
India	2013	0.310932	0.2665	1.166722	0.2433
	2014	-1.607256	0.386731	-4.156001	0
	2015	0.617702	0.474827	1.300898	0.1933
	2016	1.426338	0.652226	2.186876	0.0288



	C	0.007349	0.003479	2.112545	0.0346
		Variance Equation			
	C	5.08E-05	4.62E-05	1.098433	0.272
	RESID(-1)^2	-0.5346938	0.345738	-1.00347	0.3156
	GARCH(-1)	1.202265	0.741426	1.621557	0.1049
China	2013	-0.299304	0.495196	-0.604415	0.5456
	2014	1.020654	0.709817	1.437913	0.1505
	2015	0.270377	0.136819	1.976169	0.0481
	2016	0.169494	0.193743	0.87484	0.3817
	C	-0.003361	0.002945	-1.141323	0.2537
		Variance Equation			
	C	1.01E-06	3.89E-06	0.258884	0.7957
	RESID(-1)^2	-0.250576	0.635622	-0.394221	0.6934
	GARCH(-1)	0.720218	1.820158	0.39569	0.6923
South Africa	2013	0.216953	0.231906	0.935521	0.3495
	2014	-0.06801	0.390032	-0.174371	0.8616
	2015	-0.704447	0.195333	-3.606381	0.0003
	2016	0.242926	0.186392	1.303304	0.1925
	C	0.0357	0.00543	6.574736	0
		Variance Equation			
	C	1.66E-05	2.74E-05	0.605133	0.5451
	RESID(-1)^2	-0.209265	0.147899	-1.414916	0.1571
	GARCH(-1)	0.981772	0.310002	3.166989	0.0015

Source: Data collected from [www.rbi.org](http://www.rbi.org). And computed using E-Views7.0

**Table 3** Shows the results of the mean return and variance equation of GARCH model for the Foreign Exchange Market Volatility in BRICS Countries. It is to be noted that C represents the Exchange Rate results, which was taken as the Russia. It was found that, only the return on C was significant at 5% risk level in mean equation. C value was not significant at 5% risk level in variance equation. The sum of coefficient value of ARGH (-0.15, -0.162885, -0.346938, -

0.250576, -0.209265) and GARCH (0.6, 0.635508, 1.202264, 0.720218, 0.981772). Hence it confirms the rejection of Null Hypothesis NH01 “There is no volatility in the exchange rates of BRICS countries ”

## FINDINGS

- The results of descriptive statistics for Brazil, during the study period 2012 to 2016 shows that the highest mean value was (91.17622) The highest Standard deviation value was (302.2512) and kurtosis of all the variables was positive. The Jarque-Bera highest value was (31.90449).
- The results of the Augmented Dickey-Fuller Test show the stationarity of the foreign exchange rates in BRICS Countries.
- The results of the Auto Regressive Conditionally Heteroscedasticity ARCH model shows volatility in foreign exchange market in the BRICS Countries.

## CONCLUSION

This study aims to analyse the Foreign Exchange Market Volatility in BRICS countries using Exchange Rate data from 2012-2016. Using the analysis for normality and stationarity of the Foreign exchange market volatility in BRICS countries and ARCH model to analyses the volatility in the foreign exchange market in BRICS countries. The Exchange Rate rates have a positive effect on the BRICS exchange rate the result of revel volatility have a positive relationship in the BRICS countries, hence it shows the significant level is positive and its accepted.

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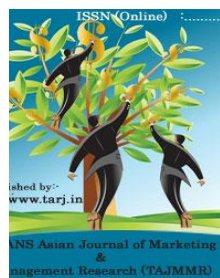
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## KARUNYA BENEVOLENT FUND SCHEME AND HEALTH CARE DEVELOPMENT IN KERALA

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### ABSTRACT

*Kerala being a welfare state is very well known for its health care facilities processes and activities it has offered for the people. A society's welfare is the well being of its members which further depends on quality of health care. The Kerala state have implemented various health services for the poor and deprived. The health service schemes often intended to provide much needed care, protection and such other services to the women, children, physically and mentally challenged, destitute, orphans, aged, infirm etc. Kerala have achieved a good degree of success on basic health indicators like Infant Mortality Rate, Maternal Mortality Rate, Total Fertility Rate, and Life Expectancy. Now a day's Kerala's health sector is focusing on three major pillars in order to achieve the twin goals of health care promotion, namely "health for all" and "international competitiveness in health". The new health strategy requires participation by all such as public, communities, and government. The three pillars of the new health strategy are Economic prosperity through health by creating world class facilities, Social health and Environment protection. A major shift in the strategic approach will be to transform the health sector into a productive sector to bring about economic prosperity. An ageing society with a heavy burden of terminal diseases will need tertiary care. The RSBY benefit package does not cover tertiary care, while CHIS Plus covers limited tertiary care for those registered under the scheme. This leaves out other groups for whom tertiary care treatment becomes unaffordable and may, therefore, require assistance. Perceiving such a felt need, Kerala's Finance Minister designed a scheme called Karunya Benevolent Fund (KBF) to meet the tertiary care expenditure of deserving individuals.*

**KEYWORDS:** Health care, Health sector, Karunya Benevolent Fund, Development, Kerala

## INTRODUCTION

Health is a universal human aspiration and a basic human need. Health is not only an important input in the development process; it also assumes the role of infrastructure for development of other social indicators and it is an important social services sector very essential for achieving sustainable human development process in all countries. Health is treated as a stock which degrades over time in the absence of "investments" in health, so that health is viewed as a sort of capital (**Grossman, 1972**). Health is vital for human well-being. It has been defined as a positive sense of well being - physical, mental, social and not merely an absence of illness. It balances between all aspects of life like emotional, economical, spiritual, as well as physical which shows how we feel and think about our self, others and how we face life's situations. Health contributes to the quality of life and enhances people's ability to enjoy life and relationships. In a knowledge economy, health is also a major contributor to economic growth. The state of health can affect the growth path of an economy through various channels. Healthier workers are more productive; they have higher learning capacity, efficiency, coping skills, and creativity. More specifically, health is a component of human capital, analogous to skill component. The health sector is the backbone of economic and social prosperity. Economic development strategies create the overarching "socioeconomic, cultural, and environmental conditions" that influence population health. ([www.tropicalgreenschool.org](http://www.tropicalgreenschool.org))

Costs of healthcare services in Kerala have been rising for several years. The bulk of these costs are borne by consumers - 74% of all healthcare expenses in India are out of pocket, one of the highest in the world. A very small portion of the Indian population, only 14%, has some kind of health insurance that helps share the burden of these rising costs (**Mahendra Dev.et.al, 2009**) Trends such as increasing incidence of diseases, especially lifestyle diseases, and the lack of focus on preventive care clearly indicate that the issue of rising costs will get more acute over the coming years, unless serious measures are taken to curb it. The state of Kerala, well known for educational and social advancement equalling the levels of developed countries is facing the problem of increased life style diseases. Further, people have started considering medical check-up and preventive health care as means to have better health management. Therefore, health insurance is expected to have a huge potential to grow. At a time, when the public health system and preventive care are in disarray, a national health insurance will end up subsidizing private hospitals and drive investment into curative medicine, sophisticated diagnostics and heroic interventions. This will further diminish resources for preventive and public health and lead to escalation of demand for high cost curative medicine in the fond hope that more hospitals will ensure better health. Since the past two decades, there has been a phenomenal surge in acceleration of healthcare costs. This has compelled individuals to have re-looked on their actual monthly expenditure, spending patterns and simultaneously allocate a proportion of their income towards personal health care. This has resulted in individuals availing healthcare insurance coverage not only themselves but also for their family members including dependants. In short, healthcare insurance provides a mitigate against medical emergencies. Health insurance is to access to health care for medical expenditure for the household and to quality of care.

## OBJECTIVES

The major objectives of the study are,

1. To analyse the various health care schemes in Kerala.
2. To examine the impact of Karunya Benevolent Fund Scheme and health care development in Kerala.

## DATA AND METHODOLOGY

The paper is based on secondary data compiled from various published and unpublished sources. First objective of the study is analysed from the data given in Kerala government official website and second is discussed on data from Karunya Benevolent Fund Office, Thiruvananthapuram, Kerala.

## REVIEW OF LITERATURE

Selvaraj et.al (2009) observed that the comparative cost of hospitalization indicated that households ended up in the private healthcare institutions paying more than double that in the government setting. The government healthcare facilities, which used to offer services free of cost, had been forcing patients to procure drugs and receive diagnostic services from private sector providers. The cost of treatment increased significantly over the years both for inpatients and outpatients.

Rama Joglekar (2008) argued that for households below poverty line any expenditure on health was catastrophic as they are unable to attain the subsistence level of consumption. The probability of catastrophic out of pocket expenditure reduces by 10 percent if the head of the household has medical insurance. Insurance reduces the extent of total budget allocated towards out of pocket health expenditure in urban areas. This result has important policy implication particularly when the government is introducing user fees in public sector and government's share in total health expenditure was reducing

## RESULTS AND DISCUSSION

The major results of the study are;

- Health care schemes in Kerala
- 1) Minimum needs programme: The programme gives priority to the development of Rural Health Services.
  - 2) National Programme for Control of Blindness: The Programme envisages comprehensive eye health care services to rural and urban people by adopting eye camp approach and eye care services at various levels and by intensification of eye health education including eye donation awareness programme.
  - 3) National TB Control Programme: The National TB Control Programme is a comprehensive socially acceptable and economically feasible programme evolved with the objective of controlling the problem of Tuberculosis in the country.

- 4) National Filaria Control Programme: Filariasis is prevalent in the entire coastal belt and in some pockets of Kerala.
  - 5) National Malaria Eradication Programme
  - 6) National Leprosy Eradication Programme: The main strategy of the programme was continuous case detection of leprosy cases and its treatment with daps one and also health education of the patient family and the community.
  - 7) Sexually Transmitted Diseases Control Programme: Sexually Transmitted Diseases (STDs) are known to be one of the major health problems. As women are major reservoirs of infection in syphilis, screening of all pregnant women and subsequent treatment will not only lead to decrease in the incidence of the disorders, but will also reduce the incidence of congenital syphilis, arising from untreated cases besides that of abortions, miscarriages, still births, deafness and blindness.
  - 8) National AIDS Control Programme: Considering the gravity of increasing prevalence of HIV / AIDS the state Government has intensified and started a control programme.
  - 9) State Mental Health Programme Physical Medicine and Rehabilitation: The physical medicine and rehabilitation units are started with the main objective of providing maximum care to the physically disabled for the treatment of disability producing diseases and rehabilitation of the disabled.
  - 10) National Iodine Deficiency Disorder Control Programme
  - 11) Maternal and Child Health Programme: Right through the ages care for mothers and children has been one of the causes to which Indian policy has remained committed. Since independence Human Resource Development programmes focussed on maternal and child health.
  - 12) Immunisation Programme: Immunisation plays a vital role in the control of infectious diseases, by building up immunity among immunised persons against some specific vaccine preventable diseases and by helping to decrease the transmission of diseases from one person to another.
  - 13) Universal Immunisation Programme: The main objective of the programme is immunisation of all children below one year of age (infants) against 6 vaccine preventable diseases and 100 % coverage of pregnant women with T.T maintenance of universal prophylaxis against anaemia in women and children and also better management of diarrhoeal diseases.
  - 14) Cold Chain Programme
  - 15) Oral Rehydration Therapy (ORT)
  - 16) Child Survival and Safe Motherhood Programme (CSSM)
  - 17) Comprehensive Health Insurance Scheme
- Karunya Benevolent Fund Scheme in Kerala**



In the 2011-2012 budget speech the Honourable Minister for Finance has announced an innovative scheme for providing financial support to the poor patients who are to undergo expensive hospital treatments for selective diseases. The fund for the scheme is raised from the net proceeds of Karunya and Karunya Plus Weekly Lotteries launched for this purpose. "Karunya Benevolent Fund" was constituted under the Directorate of State Lotteries for administering the scheme. The scheme was launched on 26-02-2012.

### **Impact of Karunya Benevolent Fund Scheme and health care development in Kerala**

Kerala is an Indian state with lot of achievements in social as well as economic sphere. Now a day, one of the matters that we have to take into account seriously and with a concern is an increasing rate of chronic diseases among Keralites. The diseases like Cancer, Kidney Failure, Heart diseases etc. are being a common matter of concern in Kerala context. The treatment of these diseases requires a huge amount and the people are normally unable to meet this amount for ailment. Most of the people have been losing their basic necessities to meet this treatment expenses. It is in these contexts, Kerala government's Karunya Benevolent Fund Scheme has getting an attention with its charity works even at the national levels.

**TABLE 1.1 DISTRICT WISE DETAILS OF NUMBER OF BENEFICIARIES IN KARUNYA BENEVOLENT FUND SCHEME IN KERALA (2011-2012 TO 2016-2017)**

Sl. No	Districts	Number of Beneficiaries
1	Trivandrum	17529
2	Kollam	9724
3	Pathanamthitta	7025
4	Alappuzha	13853
5	Kottayam	20458
6	Idukki	6028
7	Ernakulam	9609
8	Thrissur	8392
9	Palakkad	13779
10	Malappuram	9804
11	Kozhikode	10588
12	Wayanad	3352
13	Kannur	14972
14	Kasaragode	6025
<b>Total</b>		<b>151138</b>

**Source: Karunya Benevolent Fund Office, Thiruvananthapuram, Kerala**

Table 1.1 shows that from 2011-2012 to 2016-2017 the total beneficiaries under this health care scheme are 151138. In fourteen districts of Kerala the highest beneficiaries are in Kottayam district then Thiruvananthapuram and Kannur districts. The data clearly reveals that many of the persons get benefit from this scheme. This welfare measure will be helpful to those who suffer from ailments, the cost of treatment of which are proved to be unbearable to lower and even middle strata of society. Thus, a welfare measure called Karunya Benevolent Fund Scheme was commenced in order to provide financial aid for poor and deprived people suffering from serious ailments like Cancer, Haemophilia, Kidney and Heart diseases and for Palliative Care. This initiative can help to address the needs of the people below poverty line as well as the other vulnerable sections of the society.

**TABLE 1.2 YEAR WISE DISBURSEMENT DETAILS OF KARUNYA BENEVOLENT FUND SCHEME IN KERALA (IN CRORES)**

Sl. No	Year						
	Districts	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
1	Trivandrum	2.6	8.7	25.1	45.3	37.8	113.5
2	Kollam	1.6	3.6	6.9	25.6	10.4	21.5
3	Pathanamthitta	0.5*	6.9	8.3	11.1	4.5	12.6
4	Alappuzha	1.6	7.4	14.7	15.6	6.5	11.1
5	Kottayam	1.4	9.5	16.5	46.7	6.0	99.1
6	Idukki	0.9*	4.1	7.1	8.2	15.0	31.5
7	Ernakulam	1.7	7.0	2.5	11.5	11.3	17.4
8	Thrissur	0.8*	5.0	11.6	12.8	2.6	17.5
9	Palakkad	0.9*	1.2	11.4	14.4	9.3	14.9
10	Malappuram	2.5	3.2	16.1	21.0	9.4	10.0
11	Kozhikkode	2.4	3.7	10.1	27.2	8.8	7.5
12	Wayanad	0.3*	1.7	4.7	5.9	9.8	1.3
13	Kannur	4.8	5.7	36.5	41.7	19.1	44..6
14	Kasaragode	1.4	6.3	12.5	10.7	8.7	15.3
	Total	<b>23.4</b>	<b>74.0</b>	<b>184.0</b>	<b>297.7</b>	<b>159.2</b>	<b>417.8</b>

**Source: Karunya Benevolent Fund Office, Thiruvananthapuram, Kerala**

(\*figures are shown in lakhs and non \* figures are shown in crores)

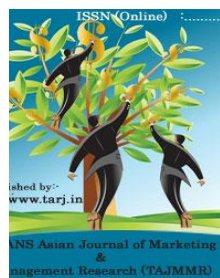
Table 1.2 gives in the period 2011-2012 the total disbursement under this scheme is 23.4 crore that is in the starting period of scheme. 74 crore and 184 crore are in the periods like 2012-2013 and 2013-2014. To reach the period 2016-2017 the government of Kerala disbursed 417.8 crores under this scheme. The table analysed that the people who suffered serious ailments and not to meet the health care expenditure, get more benefit from this health care scheme. So this is the positive impact on the health care development in Kerala.

## CONCLUSION

Thus, on the whole, in Kerala, majority of the poor people from the rural areas have no proper access towards the health care services. Quality of health care is very important for the utilization of the services. Many people nowadays cannot afford the cost of treatment. The Karunya Benevolent Fund is a welfare scheme framed by the Government of Kerala for helping the poor patients for utilizing the health care services for various treatment and diagnostic services. The fund received from this scheme was transferred to all government, co-operative hospital and accredited private hospitals. The hospitals will have to provide some concession of their own besides what the government provides. "Karunya Benevolent Fund Scheme is government's humane face.

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## EDUCATION LOAN AND NON-PERFORMING ASSETS: BANKER'S PERSPECTIVES

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### ABSTRACT

*Bank managers act as an intermediary and linkage between banks and the students and play a crucial role in delivering the service of education loan. Therefore the study tries to analyse the perspective of managers in sanctioning, recollecting and controlling the problem of NPAs associated with education loan. The major objective of the study is to analyse the perspective of bank managers towards the education loan, and to identify the common reasons and its solutions education loan NPAs. The problem of NPAs in the banking system is one of the primary and the most difficult problems that had an impact on the entire economy. Higher NPAs ratio causes poor recycling of funds, which in turn will have a deleterious effect on the deployment of credit for all other sections. The non-recovery of loans affects not only the further availability of credit but also financial soundness of the banks. Performance linked finance to students, strict qualification criteria for Education Loan, criteria to rank/evaluate the performance of education institutions and specialized branches for Education Loan are the major suggestions recommended by bank managers to make education loan scheme more effective. The problem of Non- Performing Assets in education loan is a serious matter of concern for both public sector and private sector banks in the state and for the whole country. Since it is, a sensitive issue solving the problem requires a combined effort from all the relevant sectors: the banks, Governments, higher education institutions and general public- especially from students and borrowers. The study therefore attempts to make policy implications on the part of banks, Govt. and the Public.*

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**KEYWORDS:** *Education, Bank, Government, Public & Non-performing Assets*

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## INTRODUCTION

The Indian banking industry has been an important driving force behind the nation's economic development. The emerging environments pose both opportunities and threats, in particular to the public sector banks. How well these are met will mainly depend on the extent to which the banks control their primary assets, i.e., human resources in the context of the changing economic and business environment. Banking was the only institution that invests other people's money. Bankers must be conscious of this and follow prudential norms of the highest order so that the public money is not threatened (Rao, 2013).

The Higher education sector in most developing countries faces a major crisis of funding. This crisis threatens the fundamental right of a person to higher education. The recent trend clearly shows that higher education cannot be entirely funded from government funds and a paradigm shift in the pattern of funding for higher education is urgently needed. So developing countries are compelled to make education loan an alternate source of financing higher education. An education loan can be popularized as an alternate source of funding of higher education (Jacob John 2013). The IBA guidelines state the objective of Education loan scheme as, a Scheme which aims at providing financial support from the banking system to meritorious students for pursuing higher education in India and abroad. The main emphasis is that a meritorious student, though poor is provided with an opportunity to pursue education with the financial support from the banking system with affordable terms and conditions (IBA, 2015).

Bank managers as an intermediary and linkage between banks and the students play a crucial role in delivering the service of education loan. Therefore the study tries to analyse the perspective of managers in sanctioning, recollecting and controlling the problem associated with education loan.

## OBJECTIVES OF THE STUDY

- Study the perspective of bank managers towards the education loan
- Identify the common reasons causing education loan NPAs and its solutions.

## METHODOLOGY

The study is both descriptive and analytical in nature. The nature of the study necessitates the collection of primary data from the bank managers. For the conduct of the study, initially the entire bank in the state has been classified into public and private sector banks then from each class they are ranked based on the total number of allocation of educational loan as well as the highest NPA of educational loan for knowing the scenario of educational loan and NPA in the state. Accordingly, State Bank of Travancore and Canara Bank (Lead bank in Kerala) among public sector banks and Federal Bank among private sector banks were selected.

In the second stage Kerala has been divided into three zones; Southern zone, Northern zone, and Central zone. One district under each zone will be selected for detailed investigation. Accordingly, Thiruvananthapuram district from Southern region, Ernakulam district from Central

region and Kannur district from Northern region were selected. In the third stage, based on the status of Non-Performing Asset of educational loan during the period 2005-2012, ten branches of each bank (SBT, Canara bank and Federal bank) will be selected from the three districts. That is a total of 30 bank branches will be selected across three districts of Kerala. The required data from these lenders were made available through administering a structured interview schedule. Frequency distribution table comprising number of respondents and its frequency and graphs were used to present the data. Statistical tools like Mean Score, Rank, Rating Scale, Garretts ranking Techniques etc. have been used to analyze and interpret the data.

## FINDINGS OF THE STUDY

### Non-Performing Assets Aspects of Education Loan- Mangers Perspectives

As per AISHE (2015) report, the enrolment in higher education is rising in the state. However, the majority of the students in Kerala still favor traditional course like medical, engineering and management course for availing education loan.

**TABLE 1. NPAS ASPECT OF EDUCATION LOAN**

Variable	Factor	Frequency	Percent
Course with most loan demand	Medical	6	20.0
	Engineering	12	40.0
	Management	5	16.7
	Nursing	7	23.3
	Total	30	100.0
course with more defaulters	Engineering	16	53.3
	Nursing	14	46.7
	Total	30	100.0
measures for recovery	legal measures	14	46.67
	both	16	53.33
	Total	30	100.0
attended training program on loan recovery	Yes	7	23.3
	No	23	76.7
	Total	30	100.0

The table 1 reveals that engineering is the most preferred course for availing loan followed by Nursing, Medical and Management courses. The negative impact of this trend is also evident from the high rate of defaulter found in Engineering and Nursing courses. It is worth to note that

the most preferred course for availing loan and the most default found course are the same-engineering and nursing.

Banks generally employ legal (civil court, filing suit, SARFAESI etc.) and non-legal (compromise settlement, One Time Settlement etc.) measures for recovering the loan amount. Most of the banks prefer non-legal measure for recovering education loan. Since education loan is a scheme with certain socio-welfare motives banks tries their level best to minimize the use of tough legal measures and use more compromise and easy settlement schemes than other loans.

The bank managers/staff must be well experience and knowledge in all aspects of education loan from receiving an application to recollecting the loan amount including the use of the measures for controlling and containing NPAs. Engaging in training sessions and workshops will enforce them to acquire more knowledge in imparting these schemes and policies. However, the majority of the sample respondents doesn't attend any training sessions. This may cause inefficiency in the successful functioning of the scheme and failure in settlement of the loan.

The problem of NPAs in the banking system is one of the primary and the most difficult problems that had impacted the entire economy. Higher NPAs ratio causes poor recycling of funds, which in turn will have a deleterious effect on the deployment of credit for all other sections. The non-recovery of loans affects not only the further availability of credit but also financial soundness of the banks.

The provision for bad loans is an expense that is reserved for defaulted loans or credits. It is an amount set aside in the event that the loan defaults. General provisions are balance sheet items representing funds set aside by a company as assets to pay for anticipated future losses. For banks, a general provision is considered supplementary capital under the first Basel Accord. NPAs put a damaging impact on the profitability as banks stop to earn income on one hand and attract higher provisioning compared to standard assets on the other hand. Banks have to keep provision on incremental NPAs, which has a direct bearing on the profitability of the banks. The increased NPAs put pressure on recycling of funds, reduces the ability of banks for lending more, and thus results in lesser interest income.

### **REASONS FOR EDUCATION LOAN NPAS**

Table 2 presents the mean score calculated from the response of bank managers on the reasons for default in education loan.

- **Absence of proper security**

The calculated mean score for the factor is 4.50 indicates that managers strongly supported the view that lack of collateral security causes the problem of default in education loan. Education loan does not require any collateral security up to four lakhs. The loan disburses based on the personal security of the student and his guardian. Due to these reasons, the borrowers become indifferent towards loan repayment and ultimately loan becomes the default.



**TABLE 2. REASONS FOR NPAS**

Sl. no	Factors	Mean score
1	Absence of proper security	4.50
2	High Fee	4.23
3	Wilful default	3.50
4	Cost of effective legal measures	2.57
5	Political interference	3.67
6	Poor loan recovery strategies	2.60
7	Wrong selection of courses	4.43
8	Low salary	4.47
9	High rate of interest	3.47
10	Lack of placement	4.40

- **Higher fee**

Due to the privatization of professional education, the fee for most of the course is too high. As the fee amount rise students forced to borrow more amount. As a result, the monthly installment amount and the final repayment total become beyond the control of the borrower/student. The mean score of the factor is 4.23, shows that the managers seriously consider the high cost of education as one of the main reasons for education loan NPAs.

- **Wilful Default**

The reasons for default in loan repayment can be broadly classified as either due to the financial problems or unwillingness to repay. Wilful default implies the situation where the unit has defaulted in meeting its payment/ repayment obligations to the lender even when it has the capacity to honor the said obligations. In some cases, the borrowers with enough financial support may make default in loan repayment. Such will full default also contribute a major share of NPAs in education loan. The absence of collateral security can be easily misinterpreted by the borrower as a possibility to make default in loan repayment. The right-handed mean value for the factor reveals that the managers agree with the statement that wilful default cause loan default.

- **Cost of effective legal measures**

It is clear from the previous chapter (Chapter IV) that the number of default account in education loan is on rising. Recovery of the loan amount from all these account through Legal action is too costly for them. However, the managers disagreed with the statement and the corresponding mean score was just 2.57, which is negatively skewed. Thus, irrespective of the cost issue banks strictly follow legal measures in necessary cases. For this, branches will get enough supports from the higher authorities.

- **Political interference**

Influence of political parties and leaders may also influence loan repayment. In certain cases, borrowers use their political support for extending the repayment period or to escape from loan repayment temporarily. Managers were also agreed with the statement and the corresponding mean score is 3.67. Thus, political interference also leads to the default in loan repayment to at least some extent and in some places.

- **Poor loan recovery strategies**

As the default cases are on the rising, using strict recovering measures is necessary to control education loan NPAs. Even a small negligence from the banks may consider as an advantage by most of the borrowers. Thus, banks must be more careful deciding and adopting the recovery strategies. The mean score of 2.60 proves that the managers disagreed with the statement that poor loan recovery strategies cause a default in loan. According to them their part is clear and factor outside their control cause the problem.

- **Wrong selection of courses**

Choosing the right course based on the ability and qualifications of the student is crucial for the successful completion of the study. Due to the boom in private higher education, the availability of seats is too high. As a result, most of the student who just qualified the examination can avail seats in any one of these colleges. Most of them depend on education loans to carry their study expense. In this case, students lack ambition and ability to study and successfully complete the courses. Such a trend in higher education always causes to the failure of education loan scheme and foils the chance of some other eligible students. The mean score of 4.43 is too high and which implies that the wrong selection of courses leads to the failure/dropout in the course and ultimately leads to the default in loan repayment.

From the table 3 it is clear that higher demand for education loan and a higher level of NPAs is found among engineering and nursing courses. In this situation, it is crucial to analyze the preference of the lender in providing education loan to various courses. Managers were asked to rank their preference on various courses and the study reveals that management course is the most preferred course among the banks followed by Medical courses. Arts and Science postgraduate courses occupy the third rank next to these two. Engineering and nursing courses are least preferred by the banking staff for lending. The results presented in the following table (table 4). More employment opportunities and better salaries are found among students who completed management and medical courses. Thus, the risk associated with these courses were comparatively lower than engineering and nursing. The availability of seats in good quality govt. and aided institutions also boost the preference towards these courses.

**TABLE 4 COURSE PREFERENCES FOR FINANCING EDUCATION LOAN**

Sl. no	Factors	Mean score	rank
1	Management	1.47	I
2	Medical	1.60	II

3	Arts And Science PG courses	3.03	III
4	Engineering	4.23	IV
5	Nursing	4.67	V

The demand for education loan for postgraduate course is comparatively very low. Normally students joining in various professional courses in master's degree opt for education loan. Since the demand for a loan is low, the corresponding risk and default are also low. Availability of seats to even a non-meritorious student, low salary and demand in the job market, a high number of dropout rate etc. worsen the quality of education and course preference for engineering and nursing courses among banks. The rate of default among students who availed loan for engineering and nursing courses is very high. Thus, banks give less priority to offer loans to these courses particularly to nursing.

### GARRETT'S RANKING TECHNIQUE

To find out the most significant factor which influences the respondent, Garrett's ranking technique was used. As per this method, the respondents have been asked to assign the rank for all factors and the outcomes of such ranking have been converted into score value with the help of the percent position formula. The mean score is calculated from the percent position and convert it to Garrett's score by using garretts ranking table. The table 4 provides the basic suggestions on the part of banks to make education loan scheme more effective ranked by using Garrett's ranking techniques. The suggestions proposed by managers and the corresponding mean score, Garrett score and rank is shown in the below table (4). Performance linked finance to students is the first ranked factor followed by fixing strict qualification criteria for Education Loan, criteria to rank/evaluate the performance of education institutions and Specialized branches for Education Loan in the second to the fourth rank. They were not favoured to the opinion that Common /single lending policy is needed to all banks and bank keeps close linkage with education institutions to ensure the efficient use of loan amount.

**TABLE 4. SUGGESTIONS TO MAKE EDUCATION LOAN MORE EFFECTIVE**

Sl. No	Factor	Mean score	Garrets rank score	Rank
1	Performance linked finance to students	17.18	68	1
2	Fix strict qualification criteria for Education Loan	30.56	60	2
3	Criteria to rank/evaluate performance of education institutions	31.11	59	3
4	Specialized branches for Education Loan	60	45	4
5	Common /single lending	81.11	33	5

	policy to all banks			
6	Close linkage with education institutions	81.67	32	6

By converting education loan from a mere financial assistance to a performance linked one the quality of the students, institutions and the course can be improved. Instead of providing full loan amount sanctioned, the banks must issue the subsequent installment of the loan only if the student qualified in the previous semester examination with a pre-specified cut off the mark. Only if the students attained the cut-off level he can avail the remaining installments. This must provide an incentive to students to study and pass the course and for the institution to maintain good quality in order to avoid dropouts. Similarly, banks can follow differential installment policy based on the mark attained by the students in each semester- higher the marks higher will be loan installment and for low mark lower will be the amount sanctioned.

By fixing strict qualification criteria for providing education loan banks can control the number of poor competent applications. Due to the existence of a number of self-financing institutions the availability of seat to any course is not at all a difficulty. Students with poor academic excellence also get admission in management quota in any course. The prime objective of them is to avail education loan to skip the cost of education. From the table 5.17, it is clear that wrong selection of courses is one of the major reasons for education loan NPAs.

By implementing a ranking or evaluation scheme for higher education institutions it is an easy list out the poor quality institutions. Banks can skip providing education loan to students availed admission in such institutions. Thus, all the suggestions basically focus on improving the quality of the educational institution, course, and the students. By doing so the education loan scheme can be much better utilized and the problems like the default in repayment can keep under control. The suggestions of bank managers to control the problem of education loan NPAs is ranked in the table 5.

**TABLE 5 SUGGESTIONS TO REDUCE EDUCATION LOAN NPAS**

Sl no	Factor	Mean score	rank
1	Share information of loan account between banks and to public	1.73	I
2	stringent Action against the wilful defaulter	2.10	II
3	Interest rebate to prompt repayment	2.13	III
4	Appointment more staff	4.63	IV
5	Placement service by banks	5.17	V

Besides the common NPAs controlling measures, the following additional actions are believed to curtail the problem of default in education loan. By sharing the loan account and default borrower information between banks and to the public can limit the problem of NPAs. By doing so other banks can be more cautious in lending to such borrowers. Same way borrowers also are cautious not to make default in any other accounts to avoid a future borrowing problem. Such an action along with CIBIL score can contain the problem to a big limit. Therefore the factor is ranked as the first one.

Strict actions from banks to recollect NPAs always create problems on the part of public and politicians. However, banks can use stringent action against wilful defaulter who has the ability to repay the loan. High-interest rate and high EMI are causing the default in loan repayment. By giving more interest subsidy banks can prompt the borrowers to repay the loan. However, banks don't support the policies like placement service by banks, the appointment of more staff to manage the loan etc. According to them these are out of control of the branch and cause a financial burden to the bank.

### **POLICY IMPLICATIONS**

The problem of Non- Performing Assets in education loan is a serious matter of concern for both public sector and private sector banks in the state and for the whole country. Since it is, a sensitive issue solving the problem require a combined effort from all the relevant sectors; the banks, Governments, higher education institutions and general public- especially from students and borrowers.

There is an urgent need to set up common rules and regulation for dealing the matters related with education loan lending policy. This rule must consider the A to Z steps of education loan system in the country including the cut off mark, interest rate, repayment period, recovering measures etc. Common lending and recovery regulations can help banks to speed up the loan procedures and there by benefits to the borrowers also. Banks must directly assess the performance of the students before providing them the subsequent instalment amount of education loan. In order to assess the performance, the students must give progress report to banks after each semester/ year of the study. Besides the normal defaulters, the presence of wilful default is also identified in education loan. Strict legal actions like black listing wilful defaulters from availing govt. services and benefits to migrate from the country should be adopted.

Governments can work as the intermediary between the lender and the borrowers. They can directly influence the banks, education institutions, borrowers and the public through its activities and laws. Since education loan is progressive scheme, with certain level of social responsibility, there is a need for direct govt. involvement in education loan. The involvement can take place in two different forms. In one way, it can control the course fee for higher education and the stardom of self-financing institutions. On the other hand, govt. can provide more financial support to students with higher education aspiration through its spending and scholarships.

Higher education institutions including all the self-finance institutions must be ranked based on the quality of product and services they deliver. The quality of the course they provide,

infrastructure availability, examination result, campus recruitment facility etc. must be considered for this. The common ranking in India can be done by any one agency approved and permitted by Ministry of Human Resource Development. For providing education, loan banks must give priority to those institutions having higher rank.

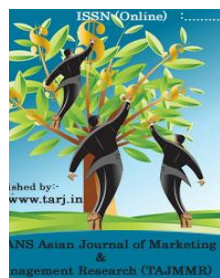
## CONCLUSION

The Higher education sector in most developing countries faces a major crisis of funding. So developing countries are compelled to make education loan an alternate source of financing higher education. An education loan can be popularized as an alternate source of funding of higher education. The problem of NPAs in the banking system is one of the primary and the most difficult problems that had an impact on the entire economy. Higher NPAs ratio causes poor recycling of funds, which in turn will have a deleterious effect on the deployment of credit for all other sections. The absence of proper security for providing education loan, low salary, higher fee amount, wrong selection of courses and lack of placement facilities are the major reasons leading the default in repayment and NPAs in education loan. The problem of Non- Performing Assets in education loan is a serious matter of concern for both public sector and private sector banks in the state and for the whole country. Since it is, a sensitive issue solving the problem require a combined effort from all the relevant sectors; the banks, Governments, higher education institutions and general public- especially from students and borrowers. The study therefore attempts to make suggestions on the part of banks, Govt. and the Public.

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UGC APPROVED JOURNAL



## URBAN WATER SUPPLY IN INDIA: ISSUES AND CHALLENGES

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### ABSTRACT

World over countries are facing the problem of fresh water scarcity mainly due to increasing population and variation in rainfall driven by climate change. About two third of the world countries mainly developing countries will face moderate to high water stress and half of the total world population will face real water constraints by 2025. The global population is expected to reach around 9.5 billion in 2050. It is estimated that the global urban population is growing at two people per second, adding 172,800 new city-dwellers each day. Rapid urbanization means that by 2050 around 70 per cent of the global population will be urban dwellers. Demographic, social and economic developments are the factors which increase pressure on water resources. There is dire need of private investment for improvement in water supply efficiency, provision of new physical infrastructure, revenue collection by adequate water charging that help in capacity building and operation and management of water system, reduction in leakages and theft of water, efficient monitoring system. This paper focuses on issues and challenges of urban water requirements and suggests suitable policy measures to ensure provide clean water supply for urban people in India.

**KEYWORDS:** Increasing Population, Urbanization and Water Demand



## INTRODUCTION

Water is a precious and increasingly critical resource. The World Economic Forum's "Global Risks 2014" report identifies water crises as one of the top five global risks posing the highest concern. Water crises were ranked as the third biggest risk in terms of impact; however, strictly speaking, four of the identified top 10 risks are water-related — water crises, climate change mitigation and adaptation, extreme weather events, and food crises. Despite this, water issues are often overlooked or misunderstood, and there is a need for better awareness of their social, economic and environmental impacts.

Most of the countries are facing the problem of fresh water scarcity mainly due to increasing population and climate variation in rainfall driven by climate change. About two third of the world countries mainly developing countries will face moderate to high water stress water and half of the total world population will face real water constraints by 2025 (United Nations Environmental Programme 2012) Many of the European countries in the temperate zone having plentiful of fresh water resources are also facing the shortage of water supply due to successive water droughts driven by climate variations lead to drying of many water resources and water level in aquifers have reached to the critical point. Large part of India also fall under the category of physical water scarcity where availability of natural water resources is not enough to secure their future water needs hence they need to increase their efficiency of water use and wisely maintain their available water resources

In India, right to fresh water for personal and domestic uses is not mentioned explicitly in Indian constitution but clean and affordable water is essential to life and one of the fundamental human rights protected under international human rights law. The greatest demand of fresh water resources is in agriculture for food production as about 70% of the developed water supplies used in irrigation. About 300 to 3000 litres of water required to produce 1kg of food grain and that food production for a balanced diet requires 1300cubic of water per person per year (ManojPanwar& Sunil Antil 2015)

## SIGNIFICANCE OF THE STUDY

The global population is expected to reach around 9.5 billion in 2050. At this point the population will still be growing, but the rate of growth will have slowed. An estimated 90% of population growth is expected to occur in the cities of the developing world. It is estimated that the global urban population is growing at two people per second, adding 172,800 new city-dwellers each day. This rapid urbanization means that by 2050 around 70% of the global population will be urban dwellers.

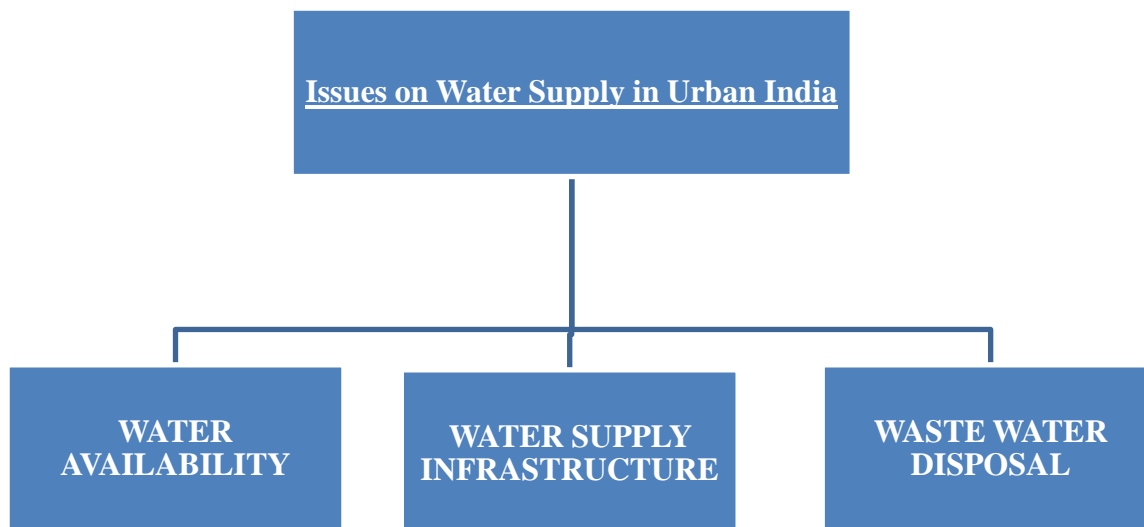
## URBAN DEVELOPMENT

Urbanization is a concomitant of a combination of factors such as broad-based industrialization, growing real per capita income, division of labour, specialization, economies of scale, technological advancement, up gradation of skills, well-knit market network, emerging service sector, etc. Thus, urbanization is the outcome of economic and demographic growth process. TamilNadu occupies the number one slot in terms of degree of urbanization among major states. An increasing urban population along with migration for want of employment opportunities from

rural to urban areas has exerted undue pressure on various basic amenities, Consequently, drinking water, sewages, sanitation, housing and urban transport are woefully inadequate to meet the growing requirements of the inhabitants. The worst affected ones are the poor in urban areas.

### Issues on Water Supply in Urban India

Demographic, social and economic developments are the factors which increase pressure on water resources. Water availability, management and waste water disposal are three major issues related to water supply in the urban settlements.



### Water Availability

Only 1% of the total water available can be used for human consumption. Most of the Indian cities depend upon underground water to meet their urban water demand. All the cities with pumping locations around the city face steep decline in water table

### Water Supply Infrastructure

It is expected that majority of urban growth in India will take place in small and medium sized towns. Such towns do not have enough revenue to maintain the speed of infrastructure development with increasing demand and least capacity to manage such services.

**TABLE - 1**  
**WATER SUPPLY SITUATION IN INDIA WITH COMPARISON TO OTHER**  
**WORLD COUNTRIES**

Percentage of total population connected with household's connection and standposts		
1	India	64
2	China	91

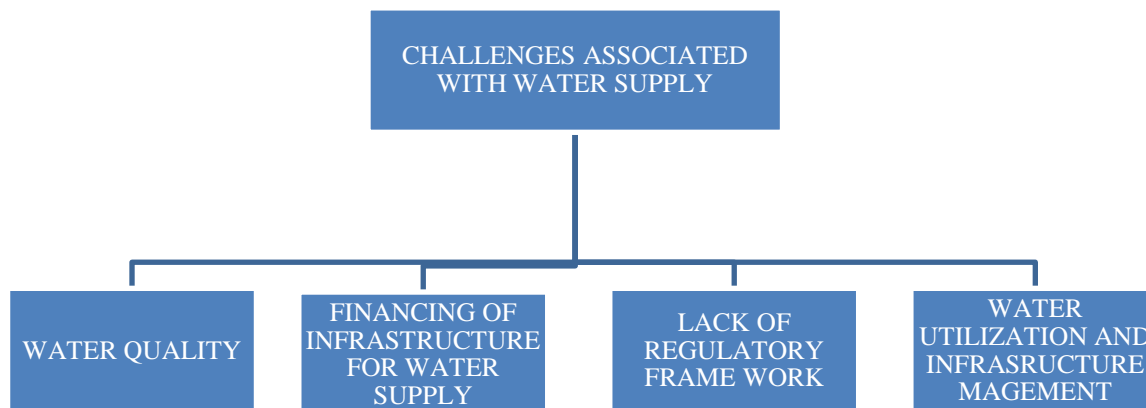
3	South Africa	86
4	Brazil	80
Comparison of duration of water supply		
1	India	16
2	Brazil	24
3	China	22
4	Vietnam	22
Per capita water supply litre per day		
1	India	37-298 lpcd (limited period)
2	Mexico	150 lpcd continuously
3	Paris	171 lpcd continuously

Source: Ministry of Water Resources in India, (2016).

### Waste Water Disposal

Indian cities lack sewerage treatment plants. Industrial and domestic waste water is discharged in rivers, ponds and in wells resulting in pollution of natural water resources. Water reuse also helps in underground water recharge, restore water cycle and protect natural ecological environment.

### Challenges Associated with Water Supply



### Water Quality

Like water quantity, water quality also has been a matter of political agenda across the world and India. In the absence of strong regulation, industrial and domestic waste water is discharged

in rivers, canals and underground water sources. About 70% of underground and surface water resources in India have been contaminated.

### **Financing of Infrastructure for Water Supply**

Lack of finance in the urban water supply system is one of the biggest challenges in Indian urban water supply system. In India, most of urban local bodies/municipalities have to depend on the state government to get investment in water supply system. In India, water supply is responsibility of both state government and urban local bodies. Unequal distribution system is also a big challenge where poor people do not have access to potable water system so effort should be done for equitable distribution of water.

### **Lack of Regulatory Framework**

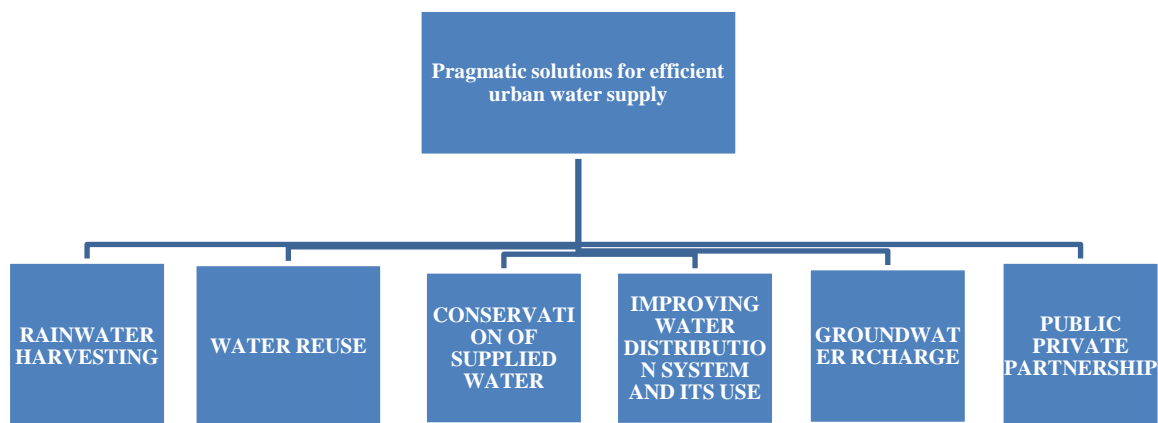
There is no clear-cut distribution of responsibilities to different urban agencies in different urban areas and most of time they overlap causing in the delay of almost all water projects. Lack of accountability and regulatory framework for core and peri-urban areas is not proper so each responsible agency can't do their duty properly. Lack of initiative taken for public participation in decision making to improve water supply system is also a major hindrance for its improvement.

### **Water Utilization and Infrastructure Management**

Intermittent water supply is faced by almost all Indian cities in India. No Indian city provides 24x7 water supplies except some public private partnership systems. Inadequate water supply is a big problem in India as only 64 % of households are connected and stand posts.

### **Pragmatic solutions for efficient urban water supply**

We know there are many techniques to increase the availability and better management of the water resources in the urban areas like rain water harvesting for underground water recharge and for storage in tanks. Water reuse or water from waste water after appropriate treatment can be used for non-potable uses like flushing, cloth washing, plant irrigation, agriculture and also for potable uses after latest treatment technologies.



### **Rain Water Harvesting**

Chennai and Coimbatore faced severe drought in 2003-04 resulting in shortage of potable water supply in urban areas, since than water harvesting is mandatory and compulsory for all building plans to get approval. Before this, about 9% of rain water percolates and mix with underground water and remaining runoff in to the ocean but now 27% of rain water is utilized. Here, this approach also applied at community scale by rejuvenating all old water tanks and ponds as infiltration structures.

### **Water Reuse or Water from Waste Water**

Many of the urban settlements in world are facing inadequate water supply and scarcity of water resources in the absence proper water management techniques and policies. To overcome this short water supply, reclaimed has become a prominent reliable alternative water source, which can be sold as new product. Recycling of water is also an important aspect of water resource and environment management policies which help in the reduction of environmental pollution and help in achieving a more sustainable form of development especially in urban areas.

### **Conservation of Supplied Water**

It is also an important strategy to improve efficiency of water supply system. In large urban settlements, a large fraction of supplies potable water is used for landscape and plant irrigation. The water demand increases in dry season when there is need for more irrigation like playground, golf course, parks etc. By reclaiming waste water, the demand of potable water can be reduced because recycled water can be used for landscape and plant irrigation in big urban settlements. Water metering with slab system has been identified as an effective tool for encouraging public for conservation of water.

### **Improving Water Distribution System and its use**

By reducing water loses in pipe distribution system, low flush, dual flush or vacuum flush toilets water can be conserved in urban areas. With the help of efficient irrigation system like drip irrigation water can also be conserved in urban settlements. Recycled water can be used in industries instead of potable water.

### **Ground Water Recharge**

By replenishing underground fresh water aquifer we can improve water supply efficiency. Bio swales creation along transportation corridor for underground recharge is being applied in many countries. Reclaimed water can be directly percolated in natural water aquifer to improve water level. Rainwater harvesting is also technique by with underground is charged and termed as artificial aquifer recharge.

### **Public private partnership**

There are some examples in India where private water suppliers with contract with municipalities are working well and the revenue collection is about 100% of total investment and expenditure and also, they are earning profit. A pilot project for supplying water 24x7 in the three cities of Hubli-Dharwar, Belgaum, and Gulbarga covering a population of 200,000 (about

10 per cent of total population in each city) has successfully transformed the water supply scenario in the five demonstration zones of these cities from about one to two hours every five days to water round the clock.

### Urbanization trends in Tamil Nadu

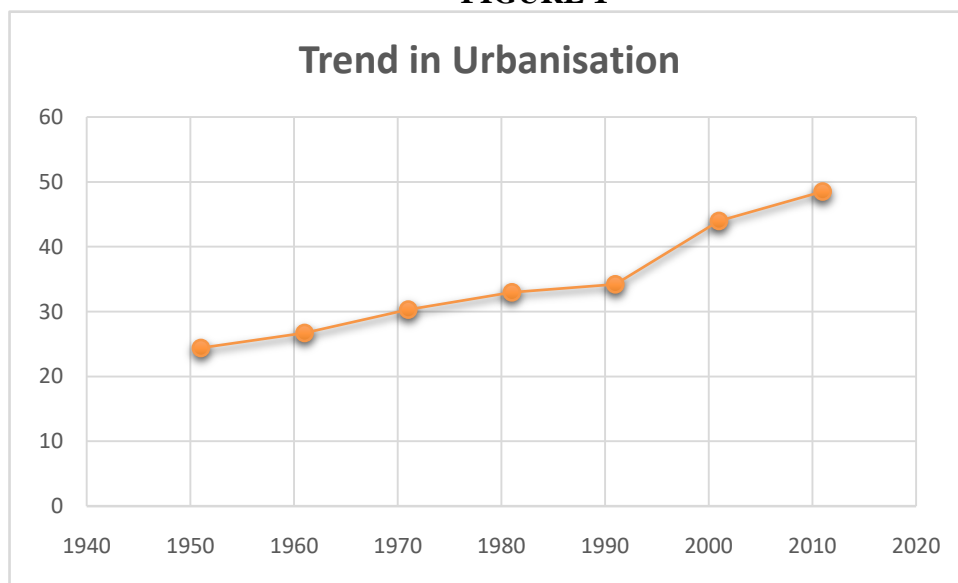
As per 2011 census the total urban population in the state was 34.92 million increasing from 27.48 million in 2001 census. The process of urbanization is a natural process associated with growth.

**TABLE-2**  
**URBAN POPULATION IN TAMIL NADU**

Year	No. of Towns	Urban Population (Millions)	Percentage to total population
1951	297	7.33	24.4
1961	339	8.99	26.7
1971	439	12.46	30.3
1981	434	15.95	33.0
1991	469	19.08	34.2
2001	832	27.48	44.0
2011	1097	34.92	48.5

Source: Government of TamilNadu Report,(2016).

**FIGURE 1**



The degree of urbanization in Tamil Nadu has progressively on the increasing over a long span of period in table 2. The proportion of urban population to total population of the state had steadily increased from 24.4 percent in 1951. With the introduction of 74<sup>th</sup> constitutional Amendment Act in 1994, all the Towns Panchayats were brought under urban fold. As a result, there was a significant rise in the proportion of urban population to 44.0 percent in 2001. In 2011, it had further moved up to 48.5 percent. As per 2011 census the average density of population in the state was 554 persons per sq k .m and in urban areas it was 3521 persons per sqk.m . Further, the growth rate of urban population in the state at 27.1 percent had outpaced the growth in rural population (6.6percent) between 2001 and 2011 censuses. The faster pace of urbanization along with higher concentration of population creates stress on the access to and quality of basic amenities. Apart from that the accelerated pace of urbanization also results in significant spill over into peri-urban areas and therefore, these areas need to be included in urban planning. In this context, special land use strategy may be evolved to address urban expansion and out growth.

### Urban Water Supply

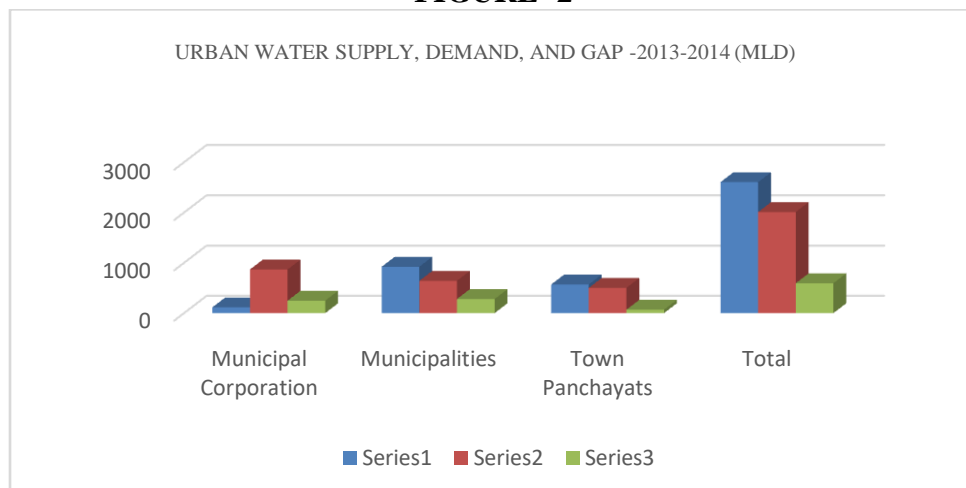
The State Government have accorded top most importance to ensure universal access to 24 X 7 Water supply in Urban Local Bodies. It is estimated that access to water increases the productive working hours of the urban poor in general and women in particular by 1.5 to 2 hours. However, ensuring equitable and adequate supply of drinking water and its effective delivery is a major issue for urban local bodies.

**TABLE-3**  
**URBAN WATER SUPPLY, DEMAND, AND GAP -2013-2014 (MLD)**

Category	Demand	Supply	Gap
Municipal Corporation	114	867	247
Municipalities	922	642	280
Town Panchayats	568	501	67
Total	2604	2010	594

Source: Ministry of Urban Development Board, ( 2016 ).



**FIGURE -2**

The urban Local Bodies are striving hard to meet the demand and supply gap in drinking water. As against to the total demand of 2604 MLD of water in urban local bodies, the supply at 2010 MLD was short by 22.8 percent during the year 2013-2014. Among the Urban bodies the short fall ranges between 11.8 percent (Town Panchayats) and 30.36 percent in municipalities.

## CONCLUSION

Freshwater is a finite resource and is also requirement for Human body. Water is used mainly for Domestic, Agricultural, and Industrial purposes and also food productions are essentially a function of water level at farm and industrial level. Scenarios for Water Utilities in 2040 depicts four plausible scenarios for the future of urban water utilities in 2040. Using Sydney as a reference city, the report explores how a wide range of social, technological, economic, environmental and political trends could shape our urban water future. In times of increasing uncertainty — and with a future likely to be utterly different from the world we are experiencing today — scenarios help us better understand possible pathways into the future and enable conversations about how we can influence and shape the direction we are travelling in. By understanding trends and planning for the future, water utilities can create more engaging customer experiences, enhance the live ability of urban areas and get more out of their current and future assets. World Health Organization (WHO) recommended a minimum of 7.5 liters/capita/day of water to meet the potable requirements of most people under most conditions. Provision of potable water supply is important for socio-economic development of a country and also one of the main indicators of the development. A strong need of regulations to recharge ground water is highly required. There is dire need of private investment for improvement in water supply efficiency, provision of new physical infrastructure, revenue collection by adequate water charging that help in capacity building and operation and management of water system, reduction in leakages and theft of water, efficient monitoring system.

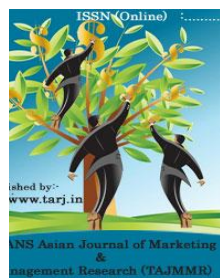
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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## INCLUSIVE GROWTH- A PANACEA FOR POVERTY

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### ABSTRACT

*The Committee computed new poverty lines for rural and urban areas of each state. The Committee is expected to submit its report by 2014. While private expenditure on education and health was covered in the base year 1973-74, no account was taken of either the increase in the proportion of these in total expenditure over time or of their proper representation in available price indices. The poor economic position was further aggravated due to the escalating price of food products. Large cross-sections of the population remained outside the sphere of growth. It was at this time emphasis was laid on inclusive growth. The recognition of the need for more inclusive growth by our planners is a welcome shift in emphasis from mere increase in growth rates to improvements in standard of living of those below the poverty line through employment opportunities as well as better delivery systems to intended benefits by intended beneficiaries, (Gandhi, 2008). This system has very vast scope in supplying the required food to the growing population. By strengthening and reforming PDS, inclusive growth can be exercised and all those below poverty line can be raised to a higher level. The introduction of food security bill also will help in removing hunger and poverty from our economy. Many vegetables can be dried and stored up. Vegetables like ladies fingers, cluster beans, amaranth, bitter gourd, green chilies, goose berry, mangoes, etc can be dried and kept. This also is a step towards food security. Any programme to be successful needs the co-operation of people, NGOs, local government along with the government body.*

**KEYWORDS:** *Undernourished, Malnutrition, Organization, Necessary*

## INTRODUCTION

With nearly a fourth of its 1.2 billion population hungry, India indeed is the world's hunger capital. According to the United Nation Food and Agriculture Organization (FAO), there are 100 million more hungry people this year, meaning they consume fewer than 1,800 calories a day. India ranked 66<sup>th</sup> on the 2008 Global Hunger Index of 88 countries, as per a report released by the Washington-based International Food Policy Research Institute (IFPRI). India has the highest number of undernourished people in the world, 230 million added to which 1.5 million children are at risk of becoming malnourished because of rising global food prices. The report of the UN World Food Programme is quite unflattering. More than 27 per cent of the world's undernourished population lives in India, of whom 43 per cent children (under five years) are underweight. The figure is higher than the global average of 25 per cent and even beats sub-Saharan Africa's figure of 28 per cent. Nearly 50 per cent of child deaths in India occur due to malnutrition.

Oxford English Dictionary (1971) defines hunger as the uneasy or painful sensation caused by want of food. Malnutrition or under nutrition is lack of some or all nutritional elements necessary for human health. There are two basic types of malnutrition.

1. Protein-energy malnutrition (PEM).
2. Micronutrient (vitamin and mineral) deficiency.

Food and Agriculture Organization (FAO) estimates that nearly 870 million people of the 7.1 billion people in the world, or one in eight, were suffering from chronic undernourishment in 2010-2012. Almost all the hungry people, 852 million, live in developing countries, representing 15 percent of the population of developing countries. There are 16 million people undernourished in developed countries (FAO 2012). The number of undernourished people decreased nearly 30 percent in Asia and the Pacific, from 739 million to 563 million, largely due to socio-economic progress in many countries in the region. The prevalence of undernourishment in the region decreased from 23.7 percent to 13.9 percent.

Latin America and the Caribbean also made progress, falling from 65 million hungry in 1990-1992 to 49 million in 2010-2012, while the prevalence of undernourishment dipped from 14.6 percent to 8.3 percent. But the rate of progress has slowed recently. However the number of hungry grew in Africa over the period, from 175 million to 239 million, with nearly 20 million added in the last few years. Nearly one in four are hungry. And in sub-Saharan Africa, the modest progress achieved in recent years up to 2007 was reversed, with hunger rising 2 percent per year since then. Developed regions also saw the number of hungry rise, from 13 million in 2004-2006 to 16 million in 2010-2012, reversing a steady decrease in previous years from 20 million in 1990-1992 (FAO 2012). Using the new estimates of world hunger, the number of undernourished people was 1 billion in 1990-92 and had decreased to 870 million in 2010-12.

## History of Poverty Estimation in India

### Pre Independence Poverty Estimates:

One of the earliest estimations of poverty was done by Dadabhai Naoroji. He formulated a poverty line ranging from Rs 16 to Rs 35 per capita per year, based on 1867-68 prices. The poverty line proposed by him was based on the cost of a subsistence diet consisting of 'rice or flour, dhal, mutton, vegetables, ghee, vegetable oil and salt'. The National Planning Committee (NPC) in 1938 estimated a poverty line ranging from Rs 15 to Rs 20 per capita per month. In 1944, the authors of the 'Bombay Plan' recommended a poverty line of Rs 75 per capita per year.

### Post Independence Poverty Estimates:

In 1962, the Planning Commission constituted a working group to estimate poverty nationally, and it formulated separate poverty lines for rural and urban areas – of Rs 20 and Rs 25 per capita per year respectively. V.M Dandekar and N Rath made the first systematic assessment of poverty in India in 1971, based on National Sample Survey (NSS) data from 1960-61. They argued that the poverty line must be derived from the expenditure that was adequate to provide 2250 calories per day in both rural and urban areas.

### Alagh Committee (1979):

In 1979, Y.K Alagh, constructed a poverty line for rural and urban areas on the basis of nutritional requirements. Accordingly 2400 calories per day in rural areas and 2100 calories in urban area was fixed. The minimum consumption expenditure was 49.1 and 56.7 in rural and urban respectively.

### Lakdawala Committee (1993):

In 1993, an expert group constituted to review methodology for poverty estimation, chaired by D.T Lakdawala, made the following suggestions: (i) consumption expenditure should be calculated based on calorie consumption as earlier; (ii) state specific poverty lines should be constructed and these should be updated using the Consumer Price Index of Industrial Workers (CPI-IW) in urban areas and Consumer Price Index of Agricultural Labour (CPI-AL) in rural areas; and (iii) discontinuation of 'scaling' of poverty estimates based on National Accounts Statistics. This assumes that the basket of goods and services used to calculate CPI-IW and CPI-AL reflect the consumption patterns of the poor.

### Tendulkar Committee (2009):

In 2005, another expert group to review methodology for poverty estimation, chaired by Suresh Tendulkar, was constituted by the Planning Commission to address the shortcomings of the previous methods. It recommended four major changes: (i) a shift away from calorie consumption based poverty estimation; (ii) a uniform poverty line basket (PLB) across rural and urban India; (iii) a change in the price adjustment procedure to correct spatial and temporal issues with price adjustment; and (iv) incorporation of private expenditure on health and education while estimating poverty. The Committee recommended using Mixed Reference Period (MRP) based estimates, as opposed to Uniform Reference Period (URP) based estimates

that were used in earlier methods for estimating poverty. It based its calculations on the consumption of the following items: cereal, pulses, milk, edible oil, non-vegetarian items, vegetables, fresh fruits, dry fruits, sugar, salt & spices, other food, intoxicants, fuel, clothing, footwear, education, medical (non-institutional and institutional), entertainment, personal & toilet goods, other goods, other services and durables.

Table 1 indicates the poverty lines computed using the Tendulkar Committee methodology for the years 2004-05, 2009-10 and 2011-12.

**TABLE 1**  
**NATIONAL POVERTY LINES (IN RS PER CAPITA PER MONTH)**  
**FOR THE YEARS 2004-05, 2009-10 AND 2011-12**

Year	Rural	Urban
2004-05	446.7	578.8
2009-10	672.8	859.6
2011-12	816.0	1000.0

Source: Report of the Expert Group to Review the Methodology for Estimation of Poverty (2009)

Planning Commission; Poverty Estimates 2009-10 and Poverty Estimates 2011-12.

The Committee computed new poverty lines for rural and urban areas of each state. It concluded that the all India poverty line was Rs 446.68 per capita per month in rural areas and Rs 578.80 per capita per month in urban areas in 2004-05. The poverty lines at all India level as an MPCE of `Rs. 673 for rural areas and Rs.860 for urban areas in 2009-10. It has estimated the percentage of people living below the poverty line in the country has declined from 37.2 per cent in 2004-5 to 29.8 percent in 2009-10 as shown in table 2. Even in absolute terms, the number of poor people has fallen by 52.4 million during this period. Of this, 48.1 million are rural poor and 4.3 million are urban poor. Thus poverty has declined on an average by 1.5 percentage points per year between 2004-5 and 2009-10. The annual average rate of decline during the period 2004-5 to 2009-10 is twice the rate of decline during the period 1993-4 to 2004-5. (Economic Survey 2012-13)

**TABLE -2**  
**NUMBER AND PERCENTAGE OF POOR**

Year	Number of poor (million)			Poverty ratio (%)		
	Urban	Rural	Total	Urban	Rural	Total
<b>1993-1994</b>	328.6	74.5	403.7	50.1	31.8	45.3
<b>2004-2005</b>	326.3	80.8	407.1	41.8	25.7	37.2

2009-10	278.2	76.5	354.7	33.8	20.9	29.8
<b>Annual Average Decline : 1993-4 to 2004-5</b> (percentage points per annum)				0.75	0.55	0.74
<b>Annual Average Decline : 2004-5 to 2009-10</b> (percentage points per annum)				1.60	0.96	1.48

**Source: Planning Commission, \* Estimated by Tendulkar Method**

#### **Rangarajan Committee:**

In 2012, the Planning Commission constituted a new expert panel on poverty estimation, chaired by C Rangarajan with the following key objectives: (i) to provide an alternate method to estimate poverty levels and examine whether poverty lines should be fixed solely in terms of a consumption basket or if other criteria are also relevant; (ii) to examine divergence between the consumption estimates based on the NSSO methodology and those emerging from the National Accounts aggregates; (iii) to review international poverty estimation methods and indicate whether based on these, a particular method for empirical poverty estimation can be developed in India, and (iv) to recommend how these estimates of poverty can be linked to eligibility and entitlements under the various schemes of the Government of India. The Committee is expected to submit its report by 2014. While private expenditure on education and health was covered in the base year 1973-74, no account was taken of either the increase in the proportion of these in total expenditure over time or of their proper representation in available price indices. Under the URP method, respondents are asked to detail consumption over the previous 30 days; whereas under the MRP method five low-frequency items (clothing, footwear, durables, education and institutional health expenditure) are surveyed over the previous 365 days, and all other items over the previous 30 days.

**TABLE-3**  
**AVERAGE MPCE (UNIFORM REFERENCE PERIOD)**

NSS Round	Year	Constant prices (2004-5)		Current prices (2011-12)	
		Rural	Urban	Rural	Urban
<b>68<sup>th</sup> Round</b>	July 2011-June 2012	707.24	1359.75	1281.45	2401.68
<b>66<sup>th</sup> Round</b>	July 2009-June 2010	599.06	1200.01	927.70	1785.81
<b>61<sup>st</sup> Round</b>	July 2004-June 2005	558.78	1052.36	558.78	1052.36

**Source: NSSO Press release 1 August 2012**

The National Sample Survey Office's (NSSO) 68th round of survey is based on samples consisting of 7,496 villages in rural India and 5,263 urban blocks except some remote areas,



during July 2011-June 2012, the release said. On an average on the all-India basis, MPCE was around Rs 1,430 for rural India and about Rs 2,630 for urban India. "Thus average urban MPCE was about 84 per cent higher than average rural MPCE for the country as a whole, though there were wide variations in this differential across states," it said. For the average rural Indian, food accounted for 52.9 per cent of the value of consumption during 2011-12. This included 10.8 per cent for cereals and cereal substitutes, 8 per cent for milk and milk products, 7.9 per cent on beverages, refreshments and processed food, and 6.6 per cent on vegetables, the release said. Among non-food item categories, fuel and light for household purposes (excluding transportation) accounted for 8 per cent, clothing and footwear 7 per cent, medical expenses 6.7 per cent, education 3.5 per cent, conveyance 4.2 per cent, other consumer services (excluding conveyance) 4 per cent, and consumer durables 4.5 per cent. For the average urban Indian, 42.6 per cent of the value of household consumption was accounted for food, including 9 per cent by beverages, refreshments and processed food, 7 per cent by milk and milk products, and 6.7 per cent by cereals and cereal substitutes. Education accounted for 6.9 per cent, fuel and light 6.7 per cent, conveyance 6.5 per cent, and clothing and footwear 6.4 per cent.

### **Need For Inclusive Growth in India**

Of the eight richest people in the world four are Indian, but the irony still remains that there's a marginal farmer in the interior of Maharashtra and in many parts of Tamilnadu, Kerala, Andhra Pradesh and other states. Since liberalization there was a feeling that India was shinning. The growth in GDP was commendable. But this did not reflect in the social development. Poverty and unemployment still remained high in the reform period also. The poor had to wait in long queues in front ration shops and the meager income that poor and marginalized received was highly insufficient to make both ends meet. The budget allocation towards health sector was highly inadequate. The poor economic position was further aggravated due to the escalating price of food products. Large cross-sections of the population remained outside the sphere of growth. It was at this time emphasis was laid on inclusive growth. The government wanted to give more focus on poor and marginalized section of the society and it is on this ground the 12<sup>th</sup> Five Year Plan suggest moving 'Towards Faster and More Inclusive Growth'.

The oxford dictionary gives the meanings to the word inclusive as 'not excluding any section of the society'. A strategy that aims at creating physical assets, human capital and capabilities and opportunities for productive employment, especially for the lower-middle class and the poor will help in achieving sustainable and inclusive growth. The recognition of the need for more inclusive growth by our planners is a welcome shift in emphasis from mere increase in growth rates to improvements in standard of living of those below the poverty line through employment opportunities as well as better delivery systems to intended benefits by intended beneficiaries, (Gandhi,2008).

Dev (2008) recommended the following principles like equity, non-discrimination, transparency, accountability and participation (ENTAP) to achieve inclusive growth where in there can be improvement in 'human face'.

**EQUITY:**

Monitoring mechanisms should be adopted to help the poor and vulnerable groups. The latter category include children, pregnant women, widows, single women, old age population, destitute, disabled persons, socially disadvantaged sections like scheduled castes and scheduled tribes. Also inequalities across and within states should be reduced. Production and distribution policies have to be sensitive to the local problems in ensuring food and nutrition.

**NON-DISCRIMINATION:**

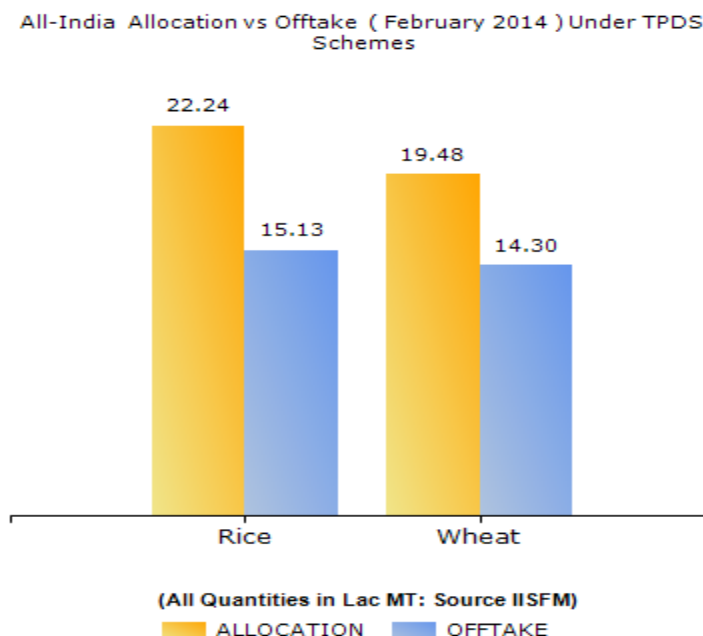
Gender discrimination should be avoided and intra-household distribution should be improved. Similarly, poverty among SCs and STs is high and they should not be discriminated while ensuring right to food. In other words, social exclusion should be avoided while identifying the beneficiaries under the programmes.

**Transparency, Accountability and Participation:**

Right to information would help transparency, accountability and participation in government programmes. Involvement of good NGOs makes these rights based principles possible. Decentralization of administration and involvements of panchayat would help increase participation.

**RIGHT TO FOOD**

This paper would highlight on need to ensure the most basic right or need to the people i.e. food. India even now faces the formidable task of feeding its growing population. India not only becomes self sufficient in food production but also a net exporter of food in the beginning of this century. But sadly the food security at the macro level did not get transmitted to the household food security. We have largest food distribution system in the world through the mechanism called public distribution system (PDS). Since its inception PDS has benefited millions of poor people. However, certain loop holes has not been plugged. The problem of inclusion and exclusion is still rampant. Government interventions at various levels and at different times have not been effective to revamp the system so as to make the poor get their entitlement. In June 1997, the Government of India launched the Targeted Public Distribution System (TPDS) with focus on the poor. Government of India has been making allocations of food grains to Below Poverty Line (BPL) families under Targeted Public Distribution System (TPDS) on the basis of 1993-94 poverty estimates of Planning Commission. In order to make Targeted Public Distribution System (TPDS) more focused and targeted towards this category of population, the "Antyodaya Anna Yojana" (AAY) was launched in December, 2000 for one crore poorest of the poor families. The total coverage of AAY families is 2.50 crore. AAY contemplated identification of one crore poorest of the poor families from amongst the number of BPL families covered under TPDS within the States and providing them food grains at a highly subsidized rate of Rs.2/ per kg. for wheat and Rs. 3/ per kg for rice. The scale of issue that was initially 25 kg per family per month has been increased to 35 kg per family per month with effect from 1<sup>st</sup> April, 2002.

**FIGURE -1**

**Sources: Ministry of Consumer Affairs, Food and Public Distribution**

With the aim of supplying food for all in the country the UPA government took a bold step in passing the food security bill. The Indian National Food Security Act, 2013 (also Right to Food Act), was signed into law on September 12, 2013, retroactive to July 5, 2013. This law aims to provide subsidized food grains to approximately two thirds of India's 1.2 billion people. Under the provisions of the bill, beneficiaries are to be able to purchase 5 kilograms per eligible person

per month of cereals at the following prices: rice at 3 (4.8 US) per kg, wheat at 2 (3.2 US) per kg and coarse grains (millet) at 1 (1.6 US) per kg. Pregnant women, lactating mothers, and certain categories of children are eligible for daily free meals. Further it also aims at reforming the Public Distribution System and there will be protection to the states in terms of grain allocation and central government funds to states in case of short supplies of food grains.

Of course, if properly managed food will reach the hungry people. However there should be an equal participation from the public also to co-operate with the government in raising and supplying food. A great deal can be done in the agriculture sector. The fallow lands can be brought under plough. Each household can do their part by making a kitchen garden. In these days of high competition and commercialization when vegetables and fruits are coated with pesticides, we can attempt to grow vegetables in our own house. Roof kitchen is gaining momentum and the state government is giving lots of subsidy for the same. The government of Tamilnadu is doing it on a war footing. The colossal food wastage is to be reduced. Right from production to consumption a lot of food is being wasted. An earnest decision on the part of everyone would help reduce the waste. During excess production the fruits and vegetables can be

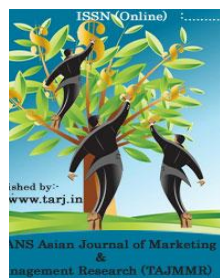
processed and stored up. Again there are institutes run by the government to train women to process food. Pickles, jams and squash made by women or SHGs make a way not only to earn an income but also prevent food wastage. Many vegetables can be dried and stored up. Vegetables like ladies fingers, cluster beans, amaranth, bitter gourd, green chilies, goose berry, mangoes, etc can be dried and kept. This also is a step towards food security. Any programme to be successful needs the co-operation of people, NGOs, local government along with the government body.

### CONCLUSION:

There are strong, direct relationships between hunger, poverty, and agriculture. In spite of the growth in GDP one-third of population in India still lives below poverty line. The 12<sup>th</sup> five year plan gave importance to poor and downtrodden people and it was in this sense the whole plan was devoted towards inclusive growth. It is a great dream of Dr.M.S. Swaminathan to bring in second green revolution in India which will reduce poverty. He along with other visionaries gives a clarion call to turn back to 'agriculture for economic development'. Agriculture growth is a solution to the existing poverty in the country. Food distribution is channeled mainly through PDS to the poor people. This system has very vast scope in supplying the required food to the growing population. By strengthening and reforming PDS, inclusive growth can be exercised and all those below poverty line can be raised to a higher level. The introduction of food security bill also will help in removing hunger and poverty from our economy.

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

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UGC APPROVED JOURNAL



## TRANSFORMING INDIA THROUGH DIGITAL FINANCIAL INCLUSION

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### ABSTRACT

*India is well and truly into the Digital Era. The Indian financial services landscape is undergoing a technological shift. The last few years have seen a renewed public focus on expanding financial inclusion. Building off prior programs, the government has invested in regulatory reform, improvements to the banking, payments, and ID infrastructure. They have also announced a series of programs targeting the bottom of the pyramid and micro, small, and medium enterprises (MSMEs). Together these trends are unleashing tremendous innovation with the potential to speed financial inclusion for millions. The present paper aims at understanding the prospects of digital financial inclusion in the Indian context. The winning combination of JAM with Digital India has kick-started a major disruption in banking, payments and the like, as never before. All this will hopefully unveil the promised revolution of a less-cash society, financial inclusion and a savings culture which can be beneficial for the economy. Policy and Programme Support is used to create a favorable and conducive environment for the interventions and to ease administrative and regulatory bottlenecks that limit innovation and scale. Dissemination is to spread the learning's from the interventions for others to benefit from. Banks need to redesign their business strategies to incorporate specific plans to promote financial inclusion of low income group treating it both as business opportunity as well as a corporate social responsibility.*

**KEYWORDS:** Digital Financial Inclusion, Digital India, Center for Digital Financial Inclusion (CDFI)

## INTRODUCTION

In the Indian context, the term ‘financial inclusion’ was used for the first time in April 2005 in the Annual Policy Statement presented by Y. Venugopal Reddy, the then Governor, Reserve Bank of India. Later on, this concept gained ground and came to be widely used in India and abroad. The importance of an inclusive financial system is widely recognized in policy circles and has become a policy priority in many countries. Several countries across the globe now look at financial inclusion as the means to more comprehensive growth, wherein each citizen of the country is able to use earnings as a financial resource that can be put to work to improve future financial status and adding to the nation’s progress. Financial inclusion is about (a) the broadening of financial services to those people who do not have access to financial services; (b) the deepening of financial services for people who have minimal financial services; and (c) greater financial literacy and consumer protection so that those who are offered the products can make appropriate choices.

Initiatives for financial inclusion have come from financial regulators, governments and the banking industry. The banking sector has taken a lead role in promoting financial inclusion. With the prospect of reaching billions of new customers, banks and nonbanks have begun to offer digital financial services for financially excluded populations. As a result of the significant advances in the accessibility and affordability provided by digital financial services, millions of poor customers are moving from exclusively cash-based transactions to formal financial services.

## OBJECTIVES OF STUDY

1. To study the concept of digital financial inclusion.
2. To examine the impact of digital India initiative on financial inclusion.

## RESEARCH METHODOLOGY

Secondary data has been used for the purpose of the present study. The data is taken from journals and research papers, newspapers articles, websites and published reports. “Digital financial inclusion” can be defined broadly as digital access to and use of formal financial services by excluded and underserved populations. Such services should be suited to customers’ needs, and delivered responsibly, at a cost both affordable to customers and sustainable for providers. There are three key components of any such digital financial services: a digital transactional platform, retail agents, and the use by customers and agents of a device – most commonly a mobile phone – to transact via the platform. Globally, financial sector policymakers recognize the “game-changing” potential of digital financial inclusion.

- ❖ A digital transactional platform enables a customer to use a device to make or receive payments and transfers and to store value electronically with a bank or nonbank permitted to store electronic value.
- ❖ Retail agents armed with a digital device connected to communications infrastructure to transmit and receive transaction details enable customers to convert cash into electronically stored value and to transform stored value back into cash. Depending on applicable



regulation and the arrangement with the principal financial institution, agents may also perform other functions.

- ❖ The customer device can be digital (e.g., mobile phone) that is a means of transmitting data and information or an instrument (e.g., payment card) that connects to a digital device (e.g., POS terminal).

## DIGITAL INDIA

India's marginal citizens now appear to be at the center-stage of things, even in newer areas of technology and financial innovation. This is largely because of Digital India and the vision behind this programme — the empowerment of a billion Indians, most of whom live in villages across the country. The real push has come from combining the Jan Dhan accounts, the Aadhaar identity infrastructure and the spread of mobile phones. Together, this new vehicle for government reforms now seems to have caught the imagination of policymakers, RBI, researchers and technology innovators. The winning combination of JAM with Digital India has kick-started a major disruption in banking, payments and the like, as never before. All this will hopefully unveil the promised revolution of a less-cash society, financial inclusion and a savings culture which can be beneficial for the economy. The new connectivity solutions and smart phones will allow more and more people to carry a 24/7 bank in their pocket in the near future. With over 65% of the population under the age of 35, we have the right demographic profile to adopt this technology-driven change.

### The Impact of Digital India on Financial Inclusion

1. To provide internet connectivity, better access to government services, development of IT skills, government will invest USD 18.4 billion.
2. Setting up of a pan India fiber-optic network by June 2016
3. Provision of Wi-Fi services in cities where the population is more than one million and also in tourist centers.
4. Provision of broadband internet access at a cost of USD 5.9 billion to 250000 village cluster by 2019
5. Digital lockers will be provided to all the citizens, so that they can store their documents and records.
6. Setting up of 40000 internet access points.
7. Creation of direct jobs in IT sector for 1.7 crore people. These are the initiatives taken under digital India for development of IT sector. With the development of IT sector the objective of financial inclusion can easily be fulfilled. The following trends show that there is a bright scope for financial inclusion through digital means-
  - ❖ **Demographic dividend:** More than 65% of India's population is under the age of 35 years and more than 50% smart phone users in India are aged between 18 and 30 years. These consumers are tech-savvy and ready to experiment with unconventional digital financial services products that promise speed and convenience.



- ❖ **Internet-enabled mobiles:** A majority of the low-income population in India is advancing into internet usage via mobiles. The increasing affordability of mobile phones and decreasing cost of data has resulted in a highly digital populace. The emergence of smartphones is enhancing mobiles from a simple communication device to a full-fledged payment device.
- ❖ **JAM Trinity:** Jan Dhan–Aadhar–Mobile is a win-win combination that has created the building blocks for a cashless pathway to financial inclusion. Mobile phone, bank account and unique digital IDs are the pillars on which the DFS environment is being built in India.
- ❖ **E-commerce boom:** The rapid growth in e-commerce has seen lakhs of proprietors and wholesalers become online sellers. It is estimated that every month roughly 30,000 retailers are inducted as online sellers on e-commerce platforms, this offline-to-online migration is enabling FinTech companies to tap into the digital trails of these merchants – social media footprint, customer ratings/reviews, purchase history and other factors – and make credit decisions based on machine learning algorithms.
- ❖ **Significant advancement in ICT:** Higher computing capability and storage capacity have given rise to ‘big data’ analytics, facilitating better risk assessment and trend discovery. The access to wider and richer consumer data has allowed players to extract behavioral insights and develop targeted solutions. The SMAC (social media, mobile, analytics and cloud) and API technologies have allowed different data streams to ‘talk’ to each other in a highly efficient manner. This has led to the amalgamation of multiple services into a common platform, thus creating different use cases for delivery of financial services and a parallel ‘app economy’.

### **New changes accompanying digital financial inclusion**

Digital financial inclusion introduces new market participants and allocates roles and risks (both new and well-known) in different ways compared to traditional approaches to retail financial service delivery. The three key components of digital financial inclusion models correspond to the three main triggers of new or shifting risks:

- ❖ The new parties and arrangements involved in the digital transactional platform, and specifically in the management and storage of account data and the holding of customer funds;
- ❖ The technology used by the device and the digital transactional platform;
  - the use of agents as the principal customer interface.

These triggers, as well as the typical profile of the financially excluded or underserved customers in question, introduce operational risks, consumer-related risks, and financial crime risks, among others. Understanding and mitigating these risks will be key to achieving the game-changing potential rewards of digital financial inclusion.

### **The Centre for Digital Financial Inclusion (CDFI)**

The Centre for Digital Financial Inclusion (CDFI) at the Institute for Financial Management and Research (IFMR), Chennai was established in September 2014. The primary objective of the

Centre is to reduce inequities in financial access and services using technology. The Centre firmly believes that a series of digital interventions are required to accelerate access to financial products and services. Therefore, the Centre's work in the digital financial inclusion and payments space is scalable across sectors/domains including agriculture, health, governance, education, and financial services.

To achieve its objectives, the Centre focuses on four key areas – Research, Innovation & Scale, Policy and Programme Support and Dissemination. Research is used to develop deep field level understanding of the relevant issues; identify and assess intervention areas; understand facilitators of cashless transactions and evaluate impact post intervention. Under Innovation & Scale, the Centre promotes product development and scaling of new digital payment use cases, business process reengineering and developing an ecosystem comprising of infrastructure, partnerships and collaborations to further digital financial inclusion. Policy and Programme Support is used to create a favorable and conducive environment for the interventions and to ease administrative and regulatory bottlenecks that limit innovation and scale. Dissemination is to spread the leanings from the interventions for others to benefit from.

CDFI advances the following objectives, all of which are aimed at poor, rural, or otherwise excluded population segments:

- Drive payments made to excluded population segments onto digital platforms
- Work with commercial providers to test and scale new digital payment innovations
- Develop and scale new digital payment use cases
- Analyse policy / program implementation frameworks to help create an enabling environment for digital financial inclusion
- Create public goods to accelerate diffusion of best practices

Centre for Digital Financial Inclusion's **SAMWAD** is a platform for intuitive and interactive communication, which can be leveraged for continuous literacy programmes.

SAMWAD is an award-winning digital learning platform, which aims at improving financial literacy using even basic mobile phones. It has an adaptive and an interactive conversation style. High degree of personalization makes the platform unique in itself. SAMWAD can engage with the users over multiple channels - mobile apps, SMS and IVR. The platform can engage users continuously by way of interactions, stories, images, videos, discussions and polls in a language chosen by the user. The platform can be used as an effective tool to educate the unbanked, the under-banked individuals and to increase awareness and familiarity with various financial products and services.

## WAY AHEAD

As indicated above, while India has made enormous strides towards greater financial inclusion, there is a long way to go. The ultimate aim is to have a networked India in which banking services are extended to all villages, a so-called model will emerge where customers will have the option to transact with the bank of their choice in any village by using UID (unique identity)

enabled micro-ATMs (automated teller machines), reducing the dependence on cash and lowering transaction costs. The task is gigantic, but definitely achievable by following a systematic approach:

- Awareness in general, coupled with financial awareness on opening and operating accounts, must accompany the financial inclusion initiative.
- Banks should prepare comprehensive plans to cover all villages, through a mix of branchless banking and bricks and mortar branch banking. They should speed up enrolment of customers and opening of UID-enabled bank accounts. It envisages putting in place a system that enables routing of all social benefits to bank accounts electronically as also seamless cash transfer to the poor, as and when the government replaces the age-old system of subsidy and public distribution system with cash transfers.
- It is important that adequate infrastructure such as digital and physical connectivity, uninterrupted power supply, etc., is available. All stakeholders will have to work together through sound and purposeful collaborations. Local and national-level organizations have to ensure that these partnerships look at both commercial and social aspects to help achieve scale, sustainability and impact.
- Mindset, cultural and attitudinal changes at grass roots and cutting-edge technology levels of branches of banks are needed to impart organizational resilience and flexibility. Banks should institute systems of reward and recognition for personnel initiating, ideating, innovating and successfully executing new products and services in the rural areas.

Empirical evidence shows that economic growth follows financial inclusion. Boosting business opportunities will definitely increase the gross domestic product, which will be reflected in our national income growth. People will have safe savings along with access to allied products and services such as insurance cover, entrepreneurial loans, payment and settlement facility, etc.

## 6. CONCLUSION

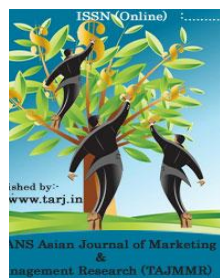
To sum up, financial inclusion is the road that India needs to travel toward becoming a global player. Financial access will attract global market players to our country and that will result in increasing employment and business opportunities. Inclusive growth will act as a source of empowerment and allow people to participate more effectively in the economic and social process.

The imperative for financial inclusion is both a moral one as well as one based on economic efficiency. Today, an extensive range of electronic channels are in use in India. But many customers remained cautious and conservative in using these channels. Banks must recognize that customers have lots of anxiety and apprehensions about using new technology and the delivery channels. These must be addressed and there is a strong need to find the solution for the same through programmes for customer education in the form of seminars, meetings, demonstrations, group interactions, provision of literature, educative and informative e-mails etc. There is a need to build confidence in people for using the new delivery channels.

Regulators and researchers need to expand their focus from banking the unbanked to financial inclusion, which potentially means looking at access to payment services rather than to bank accounts. Banks need to redesign their business strategies to incorporate specific plans to promote financial inclusion of low income group treating it both as business opportunity as well as a corporate social responsibility.

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## FINANCIAL INCLUSION- LENDING TO PRIORITY SECTOR BY SELECT BANKS IN COIMBATORE CITY

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### ABSTRACT

*Banking plays an important role in nation's economy. It has acquired a special place in the organized money market with its command over huge amount of deposits and advances. Banking is supposed to be one of the important service segments which is having significant role in accelerating the economic growth of a country. India is the country which is well known for the operational efficiency of banking and financial institutions in front of the entire world. The Reserve Bank of India (RBI) was first to initiate priority sector lending schemes in India. The main purpose of the schemes was to see that timely and sufficient credits (loans) are given (provided) to the priority sector. The study of Lending to Priority Sector by Select Banks in Coimbatore City was undertaken to analyze the growth of advances of select banks towards priority sector lending, to know the level of the awareness of beneficiaries of priority sector on different types of loan of the banks, to study the different types of loan availed by the beneficiaries and to assess the satisfaction of the beneficiaries. The study reveals that the overall Lending to Priority Sector will increase exponentially in coming years and development of priority sector will help for the inclusion of poor in economic growth of the country and synchronize the bank lending to national importance.*

**KEYWORDS:** Priority sector-Bank Loan Financial Inclusion-Satisfaction.

## INTRODUCTION

Banking plays an important role in nation's economy. It has acquired a special place in the organized money market with its command over huge amount of deposits and advances, the long process of expansion, regulation, nationalization and reorganization has brought upon the banking industry an enormous responsibility in meeting the financial needs of society. Banking is supposed to be one of the important service segments which is having significant role in accelerating the economic growth of a country. India is the country which is well known for the operational efficiency of banking and financial institutions in front of the entire world. Indian banking has reached to the present status after passing through several decades of developments. The two phases of nationalization of banks in 1969 and 1982 have contributed drastic changes in this scenario.

Commercial bank plays an important role in financing the priority sectors of the economy. In 1967-1968, government of India initiated social control over banks with a view to provide help to agriculture and small scale industries. It was emphasized in the meeting of the National Credit Council held in 1968 that commercial banks should increase their contribution in the financing of the priority sectors. Priority sector plays an important role in the economic development of the country. Therefore, Central (Federal) government of any country gives this sector priority (first preference) in obtaining loans from the banks at low rate of interest.

## PRIORITY SECTOR

Priority Sector refers to those sectors of the economy which may not get timely and adequate credit in the absence of this special dispensation. Priority Sector Lending is an important role given by the Reserve Bank of India (RBI) to the banks for providing a specified portion of the bank lending to few specific sectors like agriculture and allied activities, micro and small enterprises, poor people for housing, students for education and other low income groups and weaker sections. This is essentially meant for an all round development of the economy as opposed to focusing only on the financial sector. M.Syed Ibrahim (June, 2016) in his analysis "**Role of Indian Regional Rural Banks (RRBs) in the Priority Sector Lending**" Concludes that RRBs in India has significantly improved the rural credit to Priority Sector Lending. Kamlesh and Dave S. (2016) in their research "**A Study of Priority Sector Lending for Selected Public Sector Banks of India**" revealed that banks have to increase their lending activity towards priority sector to boost up the economy, as priority sector is the key segment of the development of the country.

## STATEMENT OF THE PROBLEM

Banking is supposed to be one of the important service segments which is having significant role in accelerating the economic growth of a country. India is the country which is well known for the operational efficiency of banking and financial institutions in front of the entire world. Banks are the primary movers and pace setter for achievement of social-economic objectives of the country. Priority Sector Lending is an important role given by the Reserve Bank of India (RBI) to the banks for providing a specified portion of the bank lending to few specific sectors like agriculture and allied activities, micro and small enterprises, poor people for housing, students



for education and other low income groups and weaker sections. In this context a study has been undertaken to analyze Lending to Priority Sector by Select Banks in Coimbatore City.

### **OBJECTIVES OF THE STUDY**

1. To know the level of the awareness of beneficiaries of priority sector on different types of loans of the banks.
2. To study the different types of loans availed by the beneficiaries.
3. To assess the satisfaction of the beneficiaries.

### **NEED FOR THE STUDY**

Today in this competitive world large numbers of banks are providing various types of loans under different lending patterns. The customer has a lot of choice in selecting the best pattern of loan for their needs. In order to improve the priority sectors banks provides innovative lending schemes to their customers. Hence this study has been made to find out the different types of loans availed by the customers and their opinion and satisfaction about priority lending policies of the banks.

### **LIMITATIONS OF THE STUDY**

1. The sample size was restricted to 90 only. So generalization could be limited based on this study.
2. The study confined to a period of six months only.
3. The study area is restricted to Coimbatore city.

### **METHODOLOGY**

A sample of 90 respondents who availed loan from State Bank of India, Indian Bank and Indian Overseas Bank under priority sector lending schemes in Coimbatore was selected by following purposive random sampling method for the study.

#### **Period of the study and data collection**

The study was conducted in Coimbatore city during December 2016 to March 2017. The study was based on both primary data and secondary data. Primary data were collected using a structured interview schedule. Secondary data were collected from various books, journals, articles and websites.

#### **Tools used**

- ❖ Percentage analysis
- ❖ Ranking technique

### **RESULTS AND DISCUSSIONS**

The study on “Lending to Priority Sector by Select Banks in Coimbatore City” was analyzed and discussed under the following headings.

- ◆ Socio-economic status of the selected beneficiaries
- ◆ Awareness of the beneficiaries about Priority Sector lending schemes.
- ◆ Loan details of the beneficiaries.



- ◆ Income and repayment of loan
- ◆ Problems faced by the beneficiaries
- ◆ Satisfaction of the beneficiaries towards priority sector lending loan schemes.

### SOCIO-ECONOMIC STATUS OF THE SELECTED BENEFICIARIES

The discussion of the socio-economic background of the beneficiaries has become the integral part of the sociological endeavor. The details relating to the socio-economic profile presented in tabular form will enable one to assess whether the identification of beneficiaries is proper or otherwise and loans entrusted to related beneficiaries are suitable or not to their education, experience, ability etc. The Socio-economic status of the selected beneficiaries is given in table 1.

**TABLE- 1 SOCIO-ECONOMIC STATUS OF THE SELECTED BENEFICIARIES**

Socio-Economic Characteristics		State Bank of India		Indian Bank		Indian Overseas Bank		Total	
Particulars		N=30	(%)	N=30	(%)	N=30	(%)	N=30	(%)
Age	20-30 years	5	17	4	13	3	10	12	13
	31-40 years	10	33	9	30	7	23	26	29
	41-50 years	7	23	11	37	12	40	30	33
	Above 50 years	8	27	6	20	8	27	22	24
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Gender	Male	18	60	14	47	13	43	45	50
	Female	12	40	16	53	17	57	45	50
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Qualification	High school	6	20	4	13	8	27	18	20
	Graduate	11	37	10	33	7	23	28	31
	Post graduate	7	23	8	27	10	33	25	28
	Professional	4	13	5	17	2	7	11	12
	Others	2	7	3	10	3	10	8	9
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Occupations	Agriculturalists	4	13	6	20	8	27	18	20
	Business	9	30	5	17	4	13	18	20
	Industrialists	10	33	7	23	11	37	28	31

	Self-employed	5	17	9	30	3	10	17	19
	Others	2	7	3	10	4	13	9	10
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Marital status	Married	20	67	18	60	21	70	59	66
	Unmarried	10	33	12	40	9	30	31	34
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Family Income(per month)	Up to 10,000	5	17	3	10	6	20	14	16
	Rs 10,001-Rs 15,000	7	23	8	27	7	23	22	24
	Rs 15,001-Rs20,000	9	30	11	37	12	40	32	36
	Rs 20,001-Rs25,000	6	20	6	20	2	7	14	16
	Above Rs. 25,000	3	10	2	7	3	10	8	9
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>

Sources: primary data

The analysis of demographic status of respondents revealed that the most 33 percent of the respondents on an average belongs to the age group of 41-50 years. Considering the total number of respondents there are 50 percentage of the male and the other fifty were females.. On an average 31 percentage of the respondents have completed their graduation. Majority of the respondents are engaged in agriculture and in small business occupations. On an average the respondents average monthly family incomes falls in the category of Rs.15,000 to Rs. 20000.

#### **AWARENESS OF THE BENEFICIARIES ABOUT PRIORITY SECTOR LENDING SCHEMES**

The various services offered by the banks can be utilized by the customers only when they are made aware of these services. The banker and customer have to understand the customer's needs in the same way; the customer has to know about the various services offered by the banks. Increased level of awareness among the customers leads to increased preferences. So the awareness level of customer on priority sector loan schemes is given in the following table 2.

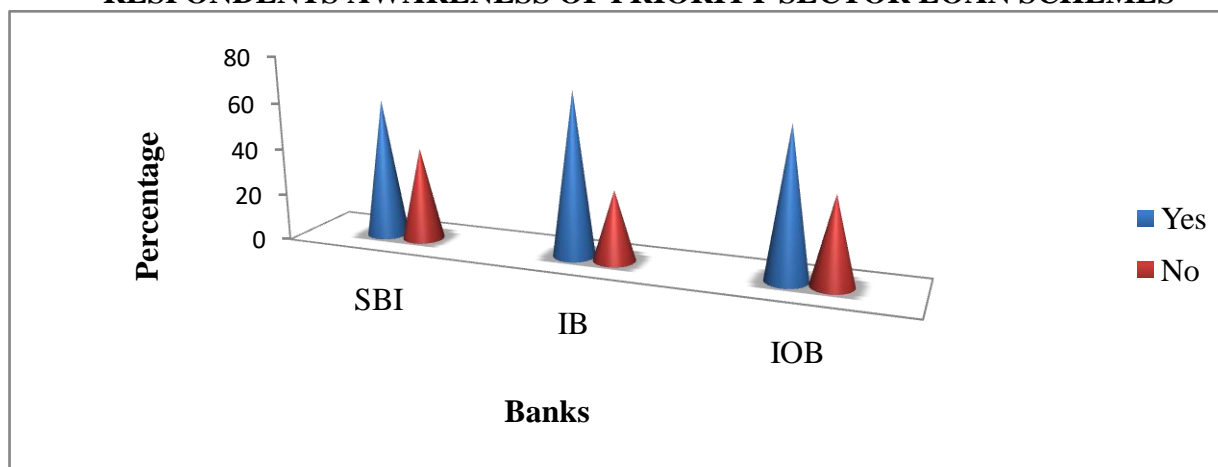
**TABLE: 2**  
**AWARENESS OF THE BENEFICIARIES ABOUT PRIORITY SECTORS LENDING SCHEMES**

Awareness of the loan		State Bank of India		Indian Bank		Indian Overseas Bank		Total	
Particulars		N=30	(%)	N=30	(%)	N=30	(%)	N=30	(%)
Awareness of priority sector loan schemes	Yes	18	60	21	70	19	63	58	64
	No	12	40	9	30	11	37	32	36
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>
Sources of information	Through Newspaper	5	17	2	7	5	17	12	13
	Direct Approach	9	30	12	40	11	37	32	36
	Friends & Relatives	6	20	9	30	4	13	19	21
	Radio/Television	7	23	3	10	6	20	16	18
	Others	3	10	4	13	4	13	11	12
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Awareness of Government Sponsored Schemes	Yes	18	60	16	53	17	57	51	57
	No	12	40	14	47	13	43	39	43
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>

**Source: primary data**

The table represents the awareness of the beneficiaries about priority sector lending schemes. An overall 64 percentage of beneficiaries are aware of priority sector lending schemes. Regarding the sources of awareness majority of the beneficiaries 30 percentage of SBI, 40 percentage of IB and 37 percentage of IOB directly approached the bank to avail loan under the scheme. Further regarding the awareness of other government sponsored schemes on an average 57 percentage of the respondents were positively replied and the rest are not known.

**FIGURE-1**  
**RESPONDENTS AWARENESS OF PRIORITY SECTOR LOAN SCHEMES**



### LOAN DETAILS OF THE BENEFICIARIES

Priority Sector Lending is an important role given by the Reserve Bank of India (RBI) to the banks for providing a specified portion of the bank lending to few specific sectors like agriculture and allied activities, micro and small enterprises, poor people for housing, students for education and other low income groups and weaker sections.. This is essentially meant for an all-round development of the economy as opposed to focusing only on the financial sector. The loan detail of beneficiaries is given in the following table.

**TABLE NO: 3**  
**LOAN DETAILS**

Loan Details		State Bank of India		Indian Bank		Indian Overseas Bank		Total	
Particulars		N=30	(%)	N=30	(%)	N=30	(%)	N=30	(%)
Categories of priority sector	RC	7	23	11	37	5	17	23	26
	PWD	4	13	5	17	7	23	16	18
	Agriculturalists	7	23	4	13	9	30	20	22
	Women	9	30	3	10	6	20	18	20
	Students	3	10	7	23	3	10	13	14
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Purpose for which	Agriculture	4	13	6	20	4	13	14	16
	Self Employment	6	20	9	30	10	33	25	28

Loan availed	Business	6	20	3	10	8	27	17	19
	SSI	11	37	4	13	6	20	21	23
	Education	3	10	8	27	2	7	13	14
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Duration of transaction with the banks	1-5 Years	13	43	15	50	12	40	40	44
	5-10years	8	27	7	23	7	23	22	24
	10-15years	5	17	6	20	6	20	17	19
	Above15years	4	13	2	7	5	17	11	12
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Time Lag of Loan: Receipt of application & Loan	Up to 10 days	2	7	4	13	2	7	8	9
	11 to 20 days	3	10	3	10	4	13	10	11
	21 to 30 days	4	13	6	20	5	17	15	17
	More than 30 days	21	70	17	57	19	63	57	63
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Factors considered in getting loan	Project Viability	3	10	11	37	5	17	19	21
	Repaying capacity	10	33	8	27	7	23	25	28
	Applicant's skill	6	20	6	20	3	10	15	17
	All the above	11	37	5	17	15	50	31	34
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>

**Source: primary data**

The table clearly states that the categories of priority sector which are classified under Reserved Community, Persons with Disability, Agriculturalists, Women and Students. Majority of the respondents in SBI are under the category of women: 30 percentage, Agriculturalists and Reserved community each 23 percentage, followed that 13 percent PWD and 10 percentages are Students category. The majority of the beneficiaries: 20 percent of SBI, 30 percent IB, 33 percentage of IOB were obtained loan for the purpose of self-employment. Overall the majority of respondents has obtained loan for self-employment.

Regarding the duration of transaction with the banks 44 percent of overall respondents are having one to five years, 24 percentage five to 10 years, 19 percentage ten to 15 years and 12 percentage above 15 years. Overall 63 percentage of the respondents expressed that it takes

more than 30 days to avail loan. Overall 34 percentage of the beneficiaries stated that the banks are considering project viability, repaying capacity and applicant's skill for sanctioning the loan.

**FIGURE -2**  
**PURPOSE FOR WHICH LOAN AVAILED**



### REPAYMENT DETAILS

The beneficiaries details regarding the repayment of loans is given in table 4.

**TABLE: 4**  
**REPAYMENT DETAILS**

Repayment details		State Bank of India		Indian Bank		Indian Overseas Bank		Total	
Particulars		N=30	(%)	N=30	(%)	N=30	(%)	N=30	(%)
Mode of repayment	Monthly	11	37	15	50	16	53	42	47
	Quarterly	9	30	4	13	8	27	21	23
	Half-yearly	6	20	5	17	3	10	14	16
	Yearly	4	13	6	20	3	10	13	14
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Sufficiency of Repayment period	Yes	21	70	12	40	19	63	52	58
	No	9	30	18	60	11	37	38	42
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Promptness in Repayment of Loan	Yes	21	70	17	57	18	60	56	62
	No	9	30	13	43	12	40	34	38
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>

If Reasons	No	Seasonal nature of business	2	22	3	23	2	17	7	21
		Medical expenses	2	22	2	15	3	25	7	21
		Irregular income	2	22	3	23	3	25	8	24
		Family consumption	2	22	3	23	2	17	7	21
		Others	1	11	2	15	2	17	5	15
		<b>Total</b>	<b>9</b>	<b>100</b>	<b>13</b>	<b>100</b>	<b>12</b>	<b>100</b>	<b>34</b>	<b>100</b>
Repayment of Loan		Income from projects	6	20	6	20	11	37	23	26
		Family members	4	13	3	10	7	23	14	16
		Selling and pledging the assets	5	17	4	13	3	10	12	13
		loan from money lenders	10	33	6	20	2	7	18	20
		Others	5	17	11	37	7	23	23	26
		<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
Percentage of loan amount repaid		0%-20%	4	13	5	17	3	10	12	13
		20%-40%	3	10	7	23	5	17	15	17
		40%-60%	8	27	4	13	7	23	19	21
		60%-80%	4	13	9	30	6	20	19	21
		80%-100%	11	37	5	17	9	30	25	28
		<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>

Sources: Primary data

#### MODE OF REPAYMENT

From above table it is understood that the customer's mode of repayments are like Monthly, Quarterly, Half-yearly and Yearly. The majority 37 percentage of the respondents are to able repay monthly in case of State bank of India, in Indian Bank 50 percentage of the respondents are able to repay where as in the case in Indian Overseas Bank 57 percentage of the respondents are able to repay monthly. Overall 47 percentage of respondents able to repay monthly, 23 percentage quarterly, 16 percentage half-yearly and only 14 percentage able to repay annually.

#### SUFFICIENCY OF REPAYMENT PERIOD

The table reveals that the majority of the respondents: 70 percentage of SBI and 63 percentage of IOB expressed that the repayment period is sufficient but 60 percentage of respondents of Indian



Bank felt that repayment period is not sufficient: overall 58 percentage of the respondents expressed that the repayment period is sufficient and the rest felt that the repayment period is not sufficient.

### PROMPTNESS IN REPAYMENT OF LOAN

The table reveals that overall 62 percentages of the respondents are able to repay the loan promptly and the rest 38 percentage are not prompt due to seasonal nature of business, medical expenses, irregular income, family consumption and other related reasons.

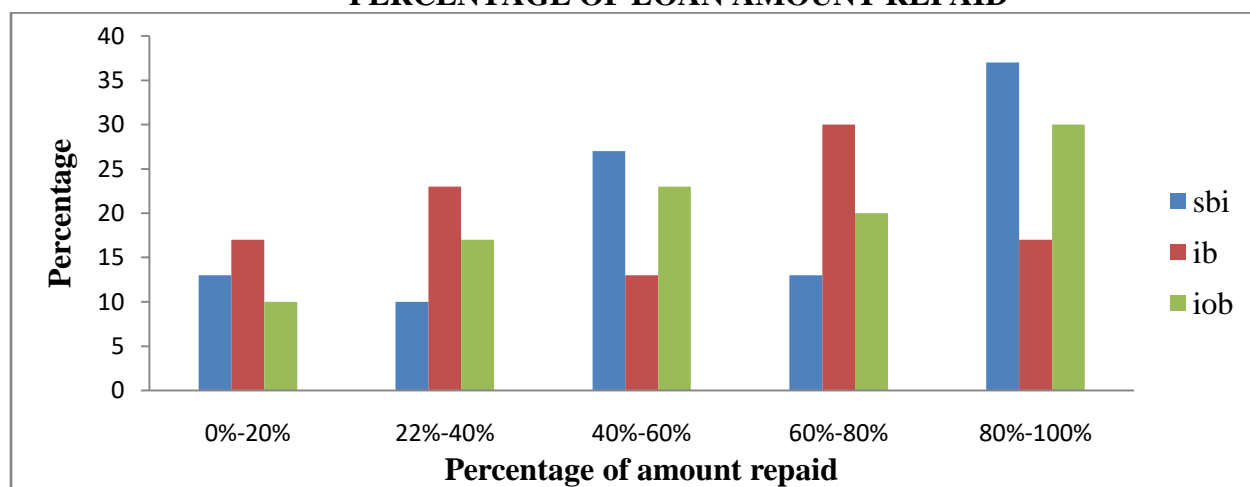
### REPAYMENT THE LOAN

The table reveals about repayment of the loan: overall 26 percentage of respondents repay the loan out of their income from their projects, 16 percentage with the help of family members, 13 percentage selling and pledging the asset, 20 percentage for borrowing from money lenders and 26 percentage are repaying the loan through other sources.

### PERCENTAGE OF LOAN AMOUNT REPAID

From the table it is understood that 37 percentages of respondents from SBI repaid more than 80 percentage of loan, 30 percentage of Indian Bank repaid 60 to 80 percentage of the loan, and 30 percentages of respondents of IOB repaid more than 80 percentage of loan. Overall 28 percentages of the respondents repaid more than 80 percentage of loan.

**FIGURE -3**  
**PERCENTAGE OF LOAN AMOUNT REPAID**



### PROBLEMS FACED BY BENEFICIARIES

The beneficiaries are availing different types of loans under priority sector schemes and able to improve their economic and social status but at the same time the study reveals that the beneficiaries are facing different types of problem and is given in table 6.

**TABLE: 6**  
**PROBLEMS FACED BY BENEFICIARIES**

Problems		State Bank of India		Indian Bank		Indian Overseas Bank		Total	
Particulars		N=30	(%)	N=30	(%)	N=30	(%)	N=30	(%)
Loan procedures is cumbersome	Yes	18	60	21	70	16	53	55	61
	No	12	40	9	30	14	47	35	39
	<b>Total</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>90</b>	<b>100</b>
If Yes Reasons	Lengthy procedures	7	39	8	38	7	44	22	40
	Delay in disbursement	4	22	5	24	4	25	13	23
	No. of formalities	6	33	6	29	3	19	15	27
	Others	1	6	2	10	2	13	5	10
	<b>Total</b>	<b>18</b>	<b>100</b>	<b>21</b>	<b>100</b>	<b>16</b>	<b>100</b>	<b>55</b>	<b>100</b>
Difficulties of loan sanctioned*	Loss of labor	20	67	12	40	15	50	47	52
	Recommendation	12	40	9	30	5	17	26	29
	Incidental expenses	18	60	15	50	12	40	45	50
	Others	7	23	6	20	14	47	27	30

**Source: primary data**

**\*multiple response**

The table reveals the beneficiaries opinion about the loan procedure. Majority of the respondents 60 percentages of beneficiaries of SBI, 70 percentage of IB and 53 percentage of IOB expressed that the loan procedure is cumbersome. Overall 61 percentage of the respondents felt that the loan procedures is cumbersome and the rest 39 percentage felt that it is easy. Out of those expressed that the loan procedure is cumbersome.: 40 percentage felt that procedures is lengthy, 23 percentage felt that there is a delay in disbursement 27 percentage felt that the formalities are more and 10 percentage respondents expressed other type of problems.

Further regarding the difficulties in sanctioning the loan 67 percentage of respondents of SBI, 40 percentage of IB and 50 percent of respondents of IOB expressed the problem of loss of labor. In addition to that 60 percentage respondents of SBI, 50 percentage of IB and 40 percentage of IOB expressed that the incidental expenses are high. Overall 52 percent of respondents expressed the

difficulties of loss of labor, 50 percent expressed the difficulties of high incidental expenses, 30 percentages felt the other type of problems and 29 percentage expressed the problem of the practice of recommendations.

### **SATISFACTION OF THE BENEFICIARIES TOWARDS PRIORITY SECTOR LENDING LOAN SCHEMES**

Scaling analysis is done by using Likert scaling technique. This type of scaling technique is used when researcher faces measurement problems especially when the concept to be measured is complex and abstract. Scaling describes the procedure of assigning numbers to various degrees of opinion, attitude and other concepts. In order to analyze the satisfaction level of beneficiaries who availed the loan under priority sector lending schemes five point scaling technique was applied. The beneficiaries were asked to give their level of satisfaction based on which score were assigned and analyzed. The details are given in the table 7.

**TABLE: 7**  
**SATISFACTION OF THE BENEFICIARIES TOWARDS PRIORITY SECTOR**  
**LENDING LOAN SCHEMES**

Satisfaction		State Bank of India	Bank of India	Indian Bank	Indian Overseas Bank		
Particulars		Mean score	Ranking	Mean score	Ranking	Mean score	Ranking
Procedure of getting loan							
	Guidance received	3.37	III	3.2	IV	3.17	II
	Application procedure	3.23	IV	3.4	II	3.63	I
	Document to be attached	3.40	II	3.3	III	3.03	III
	Time period	3.17	V	3.8	I	2.87	V
	Formalities	2.90	VI	3.1	V	2.90	IV
	Amount of loan availed	3.80	I	2.9	VI	2.80	VI
Repayment procedures							
	No. of .Installments	3.40	II	3.2	IV	3.10	IV
	Period of Repayment	2.90	VI	3.9	II	3.87	I
	Rate of subsidy	3.10	IV	2.9	VI	3.57	II
	Amount of Repayment	3.20	III	4.0	I	3.20	III
	Rate of Interest	3.80	I	3.1	V	2.87	VI
	Extension of Repayment	3.00	V	3.5	III	3.03	V
Customer Friendly							

	Easy to Approach	3.10	IV	3.0	V	3.47	II
	Response to Queries Attended Quickly	2.90	VI	2.8	VI	3.77	I
	Behaviours of the bank staff	3.00	V	3.2	III	3.17	V
	Usage of New Technology	3.30	II	3.7	I	3.30	IV
	Time Saving	3.60	I	3.1	IV	3.37	III
	Customer care service	3.20	III	3.5	II	3.10	VI

**Source: Primary data**

### **PROCEDURE OF GETTING LOAN**

The tables clearly shows that the highest score for overall satisfaction is the amount of loan availed under the bank loan process for the beneficiaries of SBI (3.80), time period for the beneficiaries of IB (3.80) and application procedure for the beneficiaries of IOB (3.63): followed by documents to be attached for the respondents of SBI (3.40) application procedures for the respondents Indian Bank (3.40) and the respondents of IOB satisfied with the guidance received (3.17)

### **REPAYMENT PROCEDURES**

Under repayment procedure the beneficiaries of SBI satisfied with the rate of interest (3.80), the beneficiaries of Indian Bank satisfied with the amount repayment (4.0) and the beneficiaries IOB satisfied with period of repayment (3.87).

### **CUSTOMER FRIENDLY**

The beneficiaries of SBI satisfied with time saving: highest score (3.6) followed by usage of technology (3.3) and customer care services (3.2).The beneficiaries of Indian Bank were satisfied with new technology (3.7) followed by customer care service (3.5) and the behavior of bank staff (3.2).The beneficiaries of IOB were satisfied with response to quarries (3.77) followed by easy to approach (3.47) and time saving (3.27).

### **SUGGESTIONS**

- 1) The banks can still increase the amount of loan to the priority sectors.
- 2) The beneficiaries must take initiative to start innovative projects and dedicate themselves for the development of their ventures.
- 3) Beneficiaries should be give adequate training in their respective ventures.

### **CONSLUSION**

Banking development is critical for the economic development of any region and banker's role is enhanced through priority sector lending .Implementation of five year plans or growth in the banking sector did not result in reduction of poverty and income inequalities across the regions and various groups of people. Hence the policy makers identified the areas on which greater

emphasis is needed to achieve the twin objectives i.e., economic growth and social justice. With the objectives of saving the poor man from the clutches of usurious money lenders, the government initiated steps like social control and nationalization of banks. Priority sector lending is intended to improve the standard of living of the people by providing adequate credit flow to various sectors like agriculture, small scale industries and other priority activities which generate income to the poor for their livelihood.

The beneficiaries of priority sector lending scheme are able to improve their financial position by undertaking different types of viable projects. The beneficiaries are able to know the different types of schemes under priority sector lending and these types of loan are really boom to the beneficiaries for their socio-economic development. Priority sector is the key segment for the development of the country. Development of priority sector will help the inclusion of poor in economic growth of the country and synchronize the bank lending to national importance.

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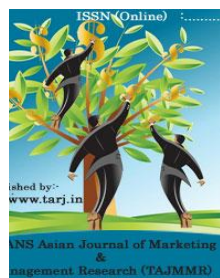
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## DETERMINANTS OF ENTREPRENEURIAL INTENTION AMONG STUDENTS – AN EMPIRICAL ANALYSIS

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### ABSTRACT

*The role of entrepreneur is of fundamental importance to a country like India where the twin problems of poverty and unemployment coexist. The results showed that attitude and aptitude factors have the strong relationship with entrepreneurial intention and differences in sex, age, educational background vary in intention. The study was confined to final year postgraduate students of Arts, science and Commerce in the selected colleges. From the list of students, every alternate student was selected for the study. Among the variables, commitment, attitude and risk taking variables had a considerable influence in discriminating the respondents i.e whether the respondents has a propensity to be an entrepreneur or not. Personal control, self-esteem, desirability and age scores are less successful as predictors. In the second stage, the colleges were selected. Only colleges admitting both boys and girls, where all the three streams arts, science and commerce are being offered in the colleges and colleges which have successfully completed ten academic years were considered for the study. Thus, the final sample consists of 701 respondents from three streams of study. The study was related to 2013-2014.*

**KEYWORDS:** Entrepreneurship, Productivity, Distribution, Self- Dependence

## INTRODUCTION

Entrepreneurship plays a crucial role in the growth and development of economies. Entrepreneurship has emerged as the most potent economic force the world has ever experienced (Kuratko, 2005).. Schumpeter (1934) introduced the role of entrepreneur as one of the important factors of production. Entrepreneurship encourages self-employment and this has been found to have an impact in productivity growth (Chang 2011). Promotion of entrepreneurship not only helps in reducing unemployment, but also plays a vital role in income distribution, attainment of economic self- dependence and economic uplifting (Agarwal and Upathyay, (2009)

Entrepreneurship is the best way to fight the perils of unemployment. Well-educated entrepreneurs are of paramount importance to any developing economy because they not only venture on their own but also create employment opportunities for others. The role of entrepreneur is of fundamental importance to a country like India where the twin problems of poverty and unemployment coexist. In India, unemployment particularly educated unemployment is one of the major problems destabilizing the sustained economic growth. The unemployment amongst the graduate youth has shown a steep increase in the recent past from 19.4 percent in 2011-12 to 32 percent during 2012-2013. It is further forecast that the average Indians expected to be 29 years old in 2020 as compared to 48 in USA, and 37 in China. This provides a greater opportunity for young Indians to take the entrepreneurial route since the offer of employment through the state or by the capital intensive units are quite impossible when one compares with the number of people to be employed.

Entrepreneurial intentions refer to individual decision to implement a business concept and direct it towards a new business creation (Bird, 1988) and it is a reliable measure of entrepreneurial activity and behavior (Krueger et al., 2000). Hence, entrepreneurial intentions are assumed to predict, although imperfectly, individuals' choice to own firms.

In this context the research study on **“Determinants of Entrepreneurial Intention of the Students”** was carried out with the following objectives

1. To find out demographic and biographic characteristics of the students
- 2 To examine entrepreneurial attitude orientation and entrepreneurial intention among the students and
- 3 To identify the factors determining entrepreneurial intention among the students.

## LIMITATIONS OF THE STUDY

1. The study was carried out in a particular geographical locale and are influenced by the Extraneous variables preventing possible generalizations.
2. The specific sampling frame prevents a possible generalization across the population

## RELATED STUDIES:

Rittippant et al., (2011) reported the impact of attitude, aptitude and demographic factors, on entrepreneurial intention among young adults in Thailand based on 1500 responses. The results showed that attitude and aptitude factors have the strong relationship with entrepreneurial



intention and differences in sex, age, educational background vary in intention. Erkkö Autio et al., (2001) analyzed factors influencing entrepreneurial intention among university students of Finland, Sweden, USA and the UK. The study identified the perceived behavioral control as the most important determinant of entrepreneurial intention. Stien Kristiansen and Nurul Indarti (2004) identified determinants of entrepreneurial intention among young people based on the survey among Indonesian and Norwegian students. It was reported that the perceptions of self-efficacy and instrumental readiness were the variables that affect entrepreneurial intention most significantly. Age, gender and educational background have no significant impact on entrepreneurial intention Asokan. and Jayashree (2012) measured the determinants of entrepreneurial intention among the final year professional course students and it was reported that desirability and feasibility, role models, personal motivation and institutional support had the positive and highly significant impact on entrepreneurial intentions among the professional course students

### METHODOLOGY:

Multistage stratified random sampling method was adopted. In the first stage, the Universities were selected. Among the various Universities in Coimbatore, Bharathiar university was selected since the study was focussed on affiliating type offering postgraduate programmes in Arts, science and commerce. In the second stage, the colleges were selected. Only colleges admitting both boys and girls, where all the three streams arts, science and commerce are being offered in the colleges and colleges which have successfully completed ten academic years were considered for the study. In the third stage, the respondents were selected. The study was confined to final year postgraduate students of Arts, science and Commerce in the selected colleges. From the list of students, every alternate student was selected for the study. Thus, the final sample consists of 701 respondents from three streams of study. The study was related to 2013-2014.

The data required for the present study was primary in nature. In order to collect relevant information three sections of interview schedule has been designed.

**Section - A** of the interview schedule is related to the biographic and demographic profile and contains information relating to age, gender, education, place of residence, order of birth, parental education, parental occupation, size of the family, family income, family property, preference for self employment, influencing factors to start business, exposure to entrepreneurship and required support to start own business..

**Section – B** is related to the **Entrepreneurial Attitude Orientation Scale**. The study tried to use Entrepreneurial Attitude Orientation Scale developed by Robinson et al.,(1991), adopted by Venkatapathy et al.,(1999), and adopted and modified by Shanmugavelan and Venkatapathy (2003)..

The scale comprises of four subscales namely

- a) Achievement- Number of items- 23: Maximum score is 115 and minimum score is 23.
- b) Innovation- Number of items- 25: Maximum score is 125 and minimum score is 25.
- c) Personal control- Number of items -12: Maximum score is 60 and minimum score is 12.and

d) Self-esteem- Number of items -14: Maximum score is 70 and minimum score is 14.

**Section C** is related to the **Entrepreneurial Intention Scale**. The study tried to adopt Entrepreneurial Intention scale developed by Arthi and Venkatapathy (2011). The entrepreneurial intention scale comprises of 62 items consisting of six different sub scales measuring the various properties of entrepreneurial intention. The six sub scales are

a) Commitment - Number of items-8 : Maximum score is 32 and minimum score is 8

b) Attitude - Number of items-11 : Maximum score is 44 and minimum score is 11

c) Risk Taking - Number of items-10 : Maximum score is 40 and minimum score is 10.

d) Feasibility- Number of items -15 : Maximum score is 60 and minimum score is 15

e) Desirability -Number of items-10 : Maximum score is 40 and minimum score is 10 and

f) Motivation - Number of items-8 : Maximum score is 32 and minimum score is 8

#### **HYPOTHESIS FORMULATED:**

Entrepreneurial intention is not significantly influenced by age,, achievement , innovation, personal control, self esteem, commitment, attitude, risk taking, feasibility, desirability and motivation

#### **TOOLS USED:**

#### **DISCRIMINANT ANALYSIS**

The study applied discriminant analysis to find out the factors causing variation in entrepreneurial intention. On the basis of entrepreneurial intention score respondents were classified into two groups. The respondents having entrepreneurial intention score higher than the average comprises of Group I. Group II comprises of the respondents having entrepreneurial intention score below average. The estimated discriminant function is of the form,

$$Y=b_1X_1+b_2X_2+b_3X_3+b_4X_4+b_5X_5+b_6X_6+b_7X_7+b_8X_8+b_9X_9+b_{10}X_{10}+b_{11}X_{11}$$

where,

Y= Entrepreneurial intention score

X<sub>1</sub>= Achievement

X<sub>2</sub>= Innovation,

X<sub>3</sub>= Personal control,

X<sub>4</sub>= , Self Esteem,

X<sub>5</sub>= Commitment,

X<sub>6</sub>= Attitude,

X<sub>7</sub>= Risk Taking,

X<sub>8</sub>= Feasibility,

X<sub>9</sub>= Desirability

X<sub>10</sub>= Motivation and

X<sub>11</sub>= Age

**FINDINGS OF THE STUDY:****A. Biographic and demographic profile of the respondents**

Entrepreneurship does not emerge and develop automatically and establishing a business venture depends upon biographic and demographic factors. The background characteristics of the sample respondents are reported in Table 1

**TABLE 1**  
**BIOGRAPHIC AND DEMOGRAPHIC PROFILE OF THE RESPONDENTS**

Particulars	Frequency (N = 701)	Percentage
Gender		
Male	347	49.5
Female	354	50.5
Age		
21 - 22 Years	82	11.7
22 - 23 Years	352	50.2
23 - 24 Years	197	28.1
24 and above	70	10.0
Parental Occupation		
Father		41.5
Private Sector	291	35.2
Public Sector	247	4.6
Self-employed	32	
Mother		27.1
Private Sector	190	14.7
Public Sector	103	42.2
Self-employed	296	
Monthly family Income (Rs)		
10,000 – 20,000	16	2.3
20,000 – 30,000	139	19.8

30,000 – 40,000	357	50.9
40,000 – 50,000	149	21.3
Above 50000	40	5.7
Job Preference after course		
Government	312	44.5
Private	221	31.5
Start own Business	111	15.8
Undecided	57	8.1
Future Plan to start a business		
	439	62.6
Yes	262	37.4
No		

Sources: Field survey-2014

The results showed that about 50% of the students belonged to age group of 22 – 23 years followed by 23 – 24 years (28%), 21 – 22 years (11%) and above 24 years (10%). Majority of students' father worked in private sectors, and mothers are self-employed. Most (50.9%) of the students have the monthly family income in the range of Rs. 30,000 – 40,000 followed by Rs. 40,000 – 50,000 (21.3%), Rs. 20,000 – 30,000 (19.3%) above Rs. 50,000 (5.7%) and Rs. 10,000 – 20,000 (2.3%) . Majority of the students were willing to work in government sector (45%), private sector (31%) and only 16% of the students were willing to start their own business.

### B. Entrepreneurial attitude orientation scale

Entrepreneurial orientation would predict the future behaviour and the extent to start a business depends on the extent of having the favourable attitude orientation towards entrepreneurship. The study tried to find out the entrepreneurial attitude orientation through four sub scales – achievement, innovation, personal control and self-esteem. Table 2 explains mean and standard deviation for the scores of the respondents on sub scale of Entrepreneurial Attitude orientation Scale

**TABLE-2**  
**MEAN AND STANDARD DIVISION FOR THE SCORES OF THE RESPONDENTS ON**  
**SUBSCALE OF ENTREPRENEURIAL ATTITUDE ORIENTATION SCALE**

Item	Achievement		Innovation		Personal control		Self esteem	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD

Male	79.83	11.11	85.26	9.68	41.61	6.01	39.94	4.11
Female	81.54	9.788	86.39	8.75	42.35	5.16	39.73	4.10

Source: Calculated values based on field survey

Table 2 shows that both the male and female respondents have scored high mean score on achievement and innovation sub scale of entrepreneurial attitude orientation. The comparison shows that both the male and female students do not differ between themselves on personal control and self esteem sub scale of entrepreneurial attitude orientation .

### C. Entrepreneurial intention scale

Table 3 represents mean and standard deviation for the scores of the respondents on 'subscale of entrepreneurial intention scale

**TABLE 3**  
**MEAN AND SD FOR THE SCORES OF THE RESPONDENTS ON SUBSCALE OF ENTREPRENEURIAL INTENTION SCALE**

Variable	Commitment	Attitude	Risk taking	Feasibility	Desirability	Motivation
	Mean SD	Mean SD	Mean SD	Mean SD	Mean SD	Mean SD
Male	24.056. 165	31.34 5.5	28.49 5.06	42.40 7.55	28.90 5.27	23.30 4.41
Female	23.11 4.504	31.51 5.69	28.51 4.69	42.47 7.42	28.39 5.02	23.99 4.46

Source: Calculated values based on field survey

The comparison shows that both the male and female students differ significantly between themselves, in that, the male students have scored significantly higher compared to the female students scores on commitment and motivation subscale of entrepreneurial intention scale.

### D. Identification of factors causing entrepreneurial intention:

The study applied discriminant analysis to find out the factors causing variations in entrepreneurial intention .The variables chosen for the analysis were age, sub scales of entrepreneurial attitude and intention. Table 4 represents the estimated discriminant co-efficient of entrepreneurial intention of postgraduate students as related to the selected variables.

**TABLE-4**  
**ESTIMATED DISCRIMINANT CO-EFFICIENTS OF ENTREPRENEURIAL**  
**INTENTION AS RELATED TO THE SELECTED VARIABLES**

	Unstandardized	Standardized	Discriminant Loading (rank)	Univariate F ratio
Achievement	0.011	0.106	0.336 (7)	141.183**
Innovation	0.008	0.066	0.308 (8)	118.471**
Personal control	-0.011	-0.004	0.278 (9)	96.521**
Self-esteem	-0.011	-0.046	0.095 (10)	11.349**
Commitment	0.100	0.429	0.587 (3)	430.959**
Attitude	0.111	0.460	0.690 (1)	595.571**
Risk-taking	0.114	0.426	0.632 (2)	500.199**
Feasibility	0.018	0.112	0.537 (4)	360.617**
Desirability	0.014	0.059	0.508 (5)	322.283**
Motivation	0.008	0.030	0.414 (6)	213.972**
Age	-0.012	-0.010	0.006 (11)	0.043 <sup>##</sup>
Group Centroid low	- 1.313			
Group Centroid high	1.409			
Wilks Lambda	0.350**			
Canonical Correlation	0.806			

**Source:** Calculated values based on field survey

The canonical correlation of 0.806 suggests the model explains 64.96% of the variation in the grouping variable, i.e. whether a respondent has an intention to become as an entrepreneur or not. Wilks' lambda reveals the significance of the discriminant function. Table 4 indicates a highly significant function ( $p < .000$ ) and provides the proportion of total variability not explained, i.e. 35.04% unexplained. The standardized canonical coefficient indicates achievement, innovation; commitment, attitude, risk taking, feasibility, desirability and motivation have a positive relationship with the predictor entrepreneurial intention, whereas personal control, self-esteem and age have a negative relationship. Among the variables, commitment, attitude and risk taking variables had a considerable influence in discriminating the

respondents i.e whether the respondents has a propensity to be an entrepreneur or not. Personal control, self-esteem, desirability and age scores are less successful as predictors.

The discriminant loadings indicates that among the variables used for the survey, attitude plays a major role in discriminating the respondents followed by risk-taking, commitment, feasibility, desirability, motivation, achievement, innovation, personal control and self-esteem.

The 'F' ratio for the scores of the respondents on achievement, innovation, personal control, self-esteem, commitment, attitude, risk-taking, feasibility, desirability and motivation pertaining to the respondents show a statistically significant result at 0.05 confidence intervals for their scores. The score on age failed to achieve statistical significance across streams of study. Hence, it could deduce that all the factors except age significantly discriminate the groups, as F-ratio is significant. The estimated discriminant equation is as follows

$$D = 0.011 \text{ Achievement} + 0.008 \text{ Innovation} - 0.001 \text{ Personal Control} - 0.001 \text{ Self-control} + 0.100 \text{ Commitment} + 0.111 \text{ Attitude} + 0.114 \text{ Risk taking} + 0.018 \text{ Feasibility} + 0.014 \text{ Desirability} + 0.008 \text{ Motivation} - 0.021 \text{ Age} - 11.473.$$

### CONCLUSION:

- Male and female students differ in entrepreneurial attitude orientation score and entrepreneurial intention scores.
- Entrepreneurial intention is significantly influenced by achievement, innovation, personal control, self-control, commitment, attitude, risk taking feasibility, desirability and motivation.

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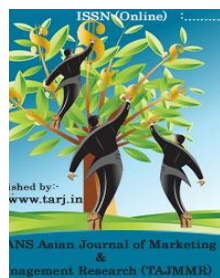
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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT OF PERSON WITH DISABILITIES

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### ABSTRACT

*Acquisition of inclusive growth occurs gradually in individual with disabilities on basis of 3E' only that is exposure, experience and environment. The main aim of provide the education or vocational training to person with disabilities is to lead the independent living skills. Through independent living skills to attain the equal opportunities, full participation and sustain their rights in the society. Individual with disabilities must attain and succeed in all areas of development for their sustainability. The landmark legislation of The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 was brought to ensure equal opportunities for persons with disabilities and to prevent all sorts of discrimination and deprivation against them and to promote their participation in education, training and employment. The attitude and the emotional and mental state of the society have to change to give persons with disabilities their legitimate rights. Therefore our country has passed legislations for promoting education and welfare of persons with special needs and implemented schemes and programmes for Inclusive growth and sustainable development of person with disabilities and getting education and employment of persons with disabilities. The goal of inclusive growth and sustainable development of person with disabilities is to provide an environment that supports the independent functioning of individuals with disabilities so that they can participate without assistance, in everyday activities.*

**KEYWORDS:** Disabilities, Opportunities, Accessibilities, Growth, Sustainable, Development

## INTRODUCTION

As part of the International Day of Persons with Disabilities 2014 IDPD programme at the United Nations Headquarters in New York, a panel discussion will be held under the theme “Disability-Inclusive Sustainable Development Goals(SDGs)”. “Sustainable Development: The Promise of Technology”. The theme marks the conclusion of the period of the Millennium Development Goals (MDGs) in 2015 and the launching of the new development framework of sustainable development goals (SDGs). The main objectives are to harness the power of technology to promote inclusion and accessibility to help realize the full and equal participation of persons with disabilities in society and shape the future of sustainable development for all.

## INCLUSIVE GROWTH

The Convention on the Rights of the Child and the Convention on the Rights of Persons with Disabilities emphasize how children with disabilities have the same rights as other children. Fulfill the right of children with disabilities ensuring access to appropriate intensive support, such as early childhood intervention and primary into higher education, promoting rich and fulfilling needs of children in early stages and preparing them for full and meaningful participation in adulthood is very important for every individual with disabilities.

Despite the efforts and achievements of Education for All (EFA) and the Millennium development Goals (MDGs), it is recognized that children with disabilities remain one of the main groups around the world that continue to be excluded from education, and those that attend school are more likely to be excluded in the classroom and to drop out (UNESCO, 2015).

Hence, in the year 2011 World Report on Disability presents compelling evidence of the barriers that women, men, girls and boys with disabilities face, such as inaccessible infrastructure, negative and discriminatory attitudes and out-dated laws and policies which infringe on their individual rights. These barriers result in persons with disabilities having poorer health, fewer educational achievements, less economic participation and higher rates of poverty and inequality than persons without disabilities

**UNCRPD-** Adoption by the United Nations General Assembly - 13 December 2006  
Opened for signature - 30 March 2007

Entry into force - 3 May 2008  
The Convention marks a ‘paradigm shift’ in attitudes and approaches to persons with disabilities.

The Convention on the Rights of Persons with Disabilities is an international human rightstreaty of the United Nations intended to protect the rights and dignity of persons with disabilities. Parties to the Convention are required to promote, protect, and ensure the full enjoyment of human rights by persons with disabilities and ensure that they enjoy full equality under the law. The Convention has served as the major catalyst in the global movement from viewing persons with disabilities as objects of charity, medical treatment and social protection towards viewing them as full and equal members of society, with human rights. It is also the only UN human rights instrument with an explicit sustainable development dimension. The Convention was the first human rights treaty of the twenty-first century

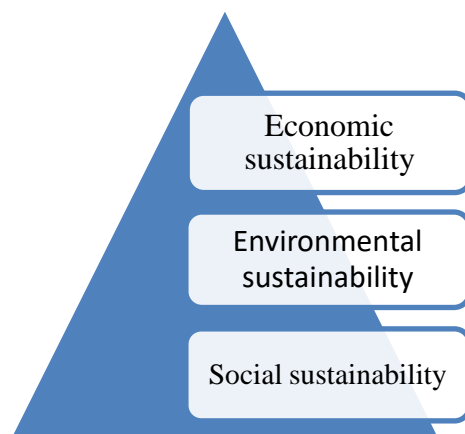
### UNCRPD Principles

There are eight guiding principles that underlie the Convention and each one of its specific articles:

- a. Respect for inherent dignity, individual autonomy including the freedom to make one's Own choices, and independence of persons
- b. Non-discrimination
- c. Full and effective participation and inclusion in society
- d. Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity
- e. Equality of opportunity
- f. Accessibility
- g. Equality between men and women
- h. Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities

### SUSTAINABLE DEVELOPMENT

The recognition of the person with disabilities need, development and opportunities will be analyzed through a disability specific perspective. Economic sustainability, Environmental sustainability, Social sustainability of person with disabilities only leads Inclusive growth and sustainable development of person with disabilities.



Tackling inequality, discrimination experienced by person with disabilities especially women and a girl with disabilities is not easily attributable to one factor, or as a result of their disability, but instead a range of factors, which include the different economic, social, political and cultural contexts they may live in, and the stigma they face within these contexts. Developing future programmes and policies to tackle inequality must recognize these intersections.

Develop a system for in-service training for all level of teachers and review teacher training pedagogy and include factors for inclusive growth and sustainable development of person with

disabilities related issues in all training programmes of teachers, incorporate issues of inclusion into pedagogic in-service training days for serving teachers, as standard, within each subject area. Review the delivery methodology of teacher training, both initial and in-service build upon existing inclusive pedagogy modules to develop a general module on inclusive education, and incorporate it into the initial teacher training course for all teachers and ensuring that all teachers receive training on inclusion in their initial teacher training, balancing theoretical understandings of inclusive learning with practical experience, ensuring that teacher trainers have a good grasp of inclusive principles, involving people with disabilities in teacher education processes, recruiting a diverse range of people as teachers is only way of getting solution for sustainable development in inclusive growth of person with disabilities.

Development of inclusive pedagogy and inclusion of children with disabilities in mainstream schools, Planning of least restrictive environment for Accessibility to school and within school, Availability of technical support and specialists, Participation of children with disabilities and their families in **IEP MEETING** for decision making, development frameworks and programmes support gender equality and recognize the intersectional's between gender and disability, Responses to unique aspects of violence against women and girls with disabilities, including their access to vital support and recovery services, facilitate to improve women and girls with disabilities to participation in political and public life, to promote active participants of the self-help groups among person with disabilities, Full accessibility of all disaster and emergency relief interventions for effective governance, economic capacity, DRR plans and policies as well as disaster loss and damages, must be inclusive of data on disability, Economic sustainability such as Equality, Poverty eradication, Governance related human rights, livelihood opportunities for persons with disabilities, employment and universal social protection, involvement and participation of persons with disabilities in political, social and economic decision-making through deliberative process that are available to persons with disabilities.

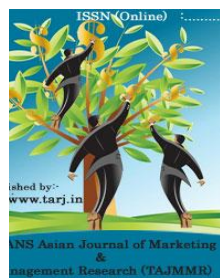
## CONCLUSION

The goal of inclusive growth and sustainable development of person with disabilities is to provide an environment that supports the independent functioning of individuals with disabilities so that they can participate without assistance, in everyday activities. Therefore, the international and national declaration and conventions marked the beginning of a new conceptual approach to disability issues as human rights issues. its adoption led to several initiatives that built upon one another to the maximum extent possible, buildings/ places/transportation systems for public use will be made barrier free and Nobody is left behind and person with disabilities are fully included in all development processes, which are measured by progressive inclusive data collection methods, disaggregated by sex, age, disability and geographic location is the only way to provide Inclusive growth and sustainable development of person with disabilities

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

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## BRAND POSITIONING AND CUSTOMERS ATTITUDE TOWARDS BRAND PREFERENCE OF FAST MOVING CONSUMER GOODS (GFMCG)

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### ABSTRACT

*In recent years, the lifestyle of a large number of rural consumers in India has changed dramatically and the process of change is on. The buying behavior of the rural consumers is influenced by several factors to purchase of FMCG. The FMCG industry primarily, it engages in the production, distribution and marketing operation of consumer packaged goods. The research was conducted from March 2017 to June 2017. The main purpose of the study to understand the brand preference of consumers towards Fast Moving Consumer goods in rural markets. This paper analysis on brand awareness in rural areas of fast moving consumer goods in Coimbatore rural areas is taken up for this study. The main objectives of the study are i). to study the brand preference of FMCG in rural markets ii) to find out the supportive factors influence to purchase of FMCG. The study has been made by conducting a survey in Madurai rural areas. This study consist 150 samples. The method of sampling, adapted to analysis for this research is convenience sampling method. This study analysis and interpretation was made on the basis of percentage. Some of the questions was scored on Likerts five point scale and calculate the Chi - square; Garrett Ranking methods and KW test were used for this research.*

**KEYWORDS:** Consumer, Household, Packaged, Variables, Sectors.



## INTRODUCTION

The Fast-Moving Consumer Goods (FMCG) sector is an important contributor to India's GDP and it is the fourth largest sector of the Indian economy. Globally, the FMCG sector has been successful in selling products to the lower and middle income groups, and the same is true in India. Over 70% of sales are made to middle class households today and over 50% is in rural India. The FMCG industry includes food and non-food everyday consumer products. They are usually purchased as an outcome of small-scale consumer decision so they are heavily supported (advertising, promotion) by the manufacturers. Fast Moving Consumer Goods (FMCG) or products that are sold quickly and generally consumed at a regular basis, as opposed to durable goods such as kitchen appliances that are replaced over a longer period of time. It is alternatively known as consumer packaged goods (CPG). The Fast-Moving Consumer Goods (FMCG) sector is an important contributor to India's GDP and it is the fourth largest sector of the Indian economy. In recent years, the lifestyle of a large number of rural consumers in India has changed dramatically and the process of change is on. The buying behavior of the rural consumers is influenced by several factors to purchase of FMCG. The FMCG industry primarily, it engages in the production, distribution and marketing operation of consumer packaged goods. This category is comprised of food and dairy products, pharmaceuticals, electronic products, household products, packaged food products and many others. The fast-moving consumer goods sector is an important contributor to India's GDP. India's FMCG sector is the fourth largest sector in the economy and creates employment for more than three million people. In recent years, rural markets have acquired significance role play in different countries like India. On the base, the overall growth of the economy has resulted into substantial increase in the purchasing power of Fast Moving Consumer Goods (FMCG) in rural communities. On account of the green revolution in India, the rural areas are consuming a large quantity of industrial and urban manufactured products. In this context, a special marketing strategy, namely, rural marketing has taken shape. Fast Moving Consumer Goods (FMCG) are popularly named as Consumer Packaged Goods items. In this category include all consumables (other than groceries /pulses) people buy at regular intervals. The most common in the list are toilet soaps, detergents, shampoos, toothpaste, shaving products, shoe polish, packaged foodstuff, household accessories and extends to certain electronic goods. These items are meant for daily or frequent consumption and have a high return. A subset of FMCGs are Fast Moving Consumer Electronics which include innovative electronic products such as mobile phones, MP3 players, digital cameras, GPS Systems and Laptops. These are replaced more frequently than other electronic products. White goods in FMCG refer to household electronic items such as Refrigerators, T.Vs, Music Systems, etc. Indian rural customer is large with illiteracy and poverty. Illiteracy leads to an inability to identify brand differences and read the basic text on packages. Poverty and dependence on vagaries of monsoon result into a low and unpredictable purchasing power. Moreover products are sold loose, giving high competition to branded sealed products. Ignorance and illiteracy are accompanied by strong influence leaders. The concept of Rural Marketing in India Economy has always played an influential role in the lives of people. In India, leaving out a few metropolitan cities, all the districts and industrial townships are connected with rural markets.

## REVIEW OF LITERATURE

At the early stage of the present exercise, a review of relevant literatures was undertaken to understand what has already been done by expert committees and researchers in the sphere brand preference and loyalty of Fast Moving Consumer Goods. The review was also made in various thesis, project reports, books and articles which enabled the researcher to identify certain lacunae in the previous studies and helped to identify new area for current research. A number of studies have been conducted previously under various National and international studies related to this topic are reviewed, some of the studies are given below: NagarajuKolla et.al (2014) in their study titled Impact of Brand Loyalty in Rural Markets (With Special Reference to Select Fast Moving Consumer Goods -FMCG). The objectives of the study was 1) to evaluate the pre purchase expectations and post purchase Performance (iii) to assess the brand loyalty of rural customers towards FMCG. Venukumar (2012) in his study entitled “Growth of Indian Rural Market: With Reference to FMCG Sector”. The main content of this study report, the rural Indian population is large and its growth rate is also high. Over 70% India’s one billion plus population lives in around 627,000 villages in rural areas. ShabirMajeed (2014) in his study entitled “Brand Awareness in Rural Area: A Case Study on Fast Moving Consumer Goods in Pulwama District of J&K State. The main purpose of this study find out the perception and brand preference of FMCG. The main aim of this study is the impact of media on brand awareness of FMCG. KavithaT.C (2012) in her study entitled “A comparative study of growth, challenges and opportunities in FMCG of rural market”. The main aim of the study find out the growth and challenges of FMCG. This simply shows the great potentiality rural India has to bring the much needed volumes and help the FMCG companies to bank upon the volume driven growth.

## SCOPE OF THE STUDY

The research conducted in order to find out the brand preference among the customers towards FMCG preferences to measure the various factors as price, quality, brand loyalty, quality, side effects, co-brands, attractiveness, celebrity influence that may satisfy their expectation towards the FMCG products. The main purpose of the study is to analyze the brand preference of FMCG.

## OBJECTIVES

Main objective of the study are as follows

- To know the demographic profile of the rural customers and its brand awareness of FMCG
- To study the factors influence on rural consumers’ purchase intention towards FMCG
- To find out the supportive factors influence to purchase of FMCG

## METHODOLOGY

The present study is an empirical research based on survey Method. The researcher has adopted Convenience Sampling. The researcher administered a comprehensive interview schedule for collecting primary data. The interview schedule was carefully designed and duly pre-tested. Pilot study was also under taken and necessary changes were incorporated before finalization of the schedule. The gathering information, the researcher met all the 200 sample respondents living in different parts of rural areas of Coimbatore District. All the analysis and inferences are

made on the basis of this primary data. Secondary data have been collected from the relevant books magazines, newspapers, websites and journals.

### STATISTICAL TOOLS

The raw data collected and carefully classified, edited and tabulation for this analysis. The data were analysis and interpretation was made on the basis of percentage. Some of the questions was scored on five point Likerts scale, and calculate the Chi square, Descriptive, Garrett Ranking methods and KS test were used for this research.

### HYPOTHESES

On the basis of review of literature the following hypotheses has been set:-

- $H_1$  - The personal factors of the respondents have significant influence on the brand preference of FMCG
- $H_2$  - The factors influence of the respondents have significant influence on purchase decision of FMCG

### Chi-Square Analysis

Hypothesis: The personal factors of the respondents have significant influence on the brand preference of FMCG

**TABLE -1**  
**PERSONAL FACTORS INFLUENCING THE BRAND PREFERENCE OF FMCG**

Personal Factors	Chi-Square value	Degree of Freedom	P - Value	Significant /Not Significant
Age	22.709	9	.001	Significant
Sex	23.21	3	.000	Significant
Educational qualification	22.61	9	.011	Not Significant
Income	21.485	9	.001	Significant
Marital status	12.633	3	.001	Significant
Family Type	11.470	3	.134	Not Significant
Family Size	12.341	6	.001	Significant

Significant (P values  $\leq 0.05$ ); Not Significant (P values  $\geq 0.05$ )

Table-1 exhibits that the personal factors of the respondents have significant influence on the brand preference of FMCG products. It is found from the table shows that the hypothesis results the hypothesis is accepted in four cases like, Age, sex, income of the respondents and marital status family size. The other three cases like Educational qualification, family type and family, in this case the hypothesis is rejected It is concluded that age, sex, educational qualification and Income of the Fast moving consumer goods' customers have an significant influence on the brand preference.

**Brand Preferences for FMCG in Rural Markets**

Almost every product that is distinguishable from another contains a means of identification for the buyer organization use a number of techniques to identify their products and services. Brands are created and brand battles are fought in consumers' mind, however, good the offering, without successful communication there can be no successful brands.

**TABLE.2**  
**BRAND AWARENESS OF FMCG PRODUCTS (TEA, DETERGENT SOAP, FAIRNESS CREAM) IN RURAL MARKETS**

Tea	percentage	Detergent Soap	percentage	Fairness Cream	percentage
Tata Tea	64	Surf Excel	75	Fair& Lovely	90
Red Label	56	Tide	67	Olay	75
TajMahal	35	Nirma	54	Ponds	64
Brook Bond	87	Wheel	65	Nivea	45
Darjeeling tea	45	Rin Supreme	86	Fairever	35
Taaza	40	Other Local Brand	15	Gahnson's baby cream	70
Average	54.50	Average	60.33	Average	63.17

**Source: Survey method**

It could be concluded from the above table.2 that the average awareness of the respondents in the rural market is 63.17 percentages in case of Fairness cream, 60.33 percentage in case of Detergent soap, 54.50 percentage in case of tea. The table.3 depicts the majority of 63.17 average score scored by Fairness Cream.

**TABLE NO.3**  
**BRAND AWARENESS OF FMCG PRODUCTS (SOAP, HAIR OIL, TOOTHPASTE) IN RURAL MARKETS**

Soap	percentage	Hair Oil	percentage	Toothpaste	percentage
Dettol	50	Parachute	75	Pepsodent	90
Dove	64	Vatika	80	Colgate	87
Lux	87	Dabur Amla	67	Closeup	75
Lifeboy	45	Hair & care	45	Sensodyne	79
Hamam	78	Almonds drops	44	Meswak	34
Cinthol	70	Aswini	67	Dabur	65

Pears	68	Kesavarthini	58	Gopal tooth paste	43
Medimix	83	Indhulega Bringa	56	LalDuntManjam	34
Liril	68	V.V.D Gold	77	Local brand	22
Wildstone	45	Others	20	others	-
Average	65.80	Average	58.90	Average	52.90

It is observed from the table no. 3 that the average awareness of the respondents in the rural market is 65.80 percentages in case of Soap, 58.90 percentage in case of Detergent soap, 52.90 percentage in case of tea. The table-4 depicts the majority of 65.80 percentage of average scored by soap.

**TABLE NO.4**  
**BRAND AWARENESS OF FMCG PRODUCTS (SOAP, HAIR OIL, TOOTHPASTE)**  
**IN RURAL MARKETS**

Shampoo	percentage	Talkum Powder	percentage
Clinic Plus	89	Bonds	90
Chick	40	Shower to Shower	45
Sunsilk	76	Axe	45
Garnier	80	Boro Plus	65
Pantene	85	Gokul Sandal	78
Head & Shoulder	77	yardley	56
Meera Shampoo	67	Local Brand/others	24
Average	73.42	Average	57.57

It is observed from the above table that the average awareness of the respondents in the rural market is 73.42 percentage in case of Shampoo, 57.57 percentage in case of Talkum Powder. The table 5 depicts the majority of 73.42 percentage of average scored by Shampoo.

**BRAND PREFERENCE OF FMCG PRODUCTS (SOAP, HAIR OIL, TOOTHPASTE)**  
**IN MARKETS**

Soap			Hair Oil			ToothPaste		
Category	Mean Score	Rank	Category	Mean Score	Rank	Category	Mean Score	Rank
Dettol	2.10	IX	Parachute	3.25	III	Pepsodent	3.70	I
Dove	3.10	VII	Vatika	3.40	I	Colgate	3.56	II

Lux	3.40	I	DaburAmla	3.20	IV	Closeup	3.25	IV
Lifeboy	2.18	VIII	Hair & care	2.1	VIII	Sensodyne	3.35	III
Hamam	3.20	V	Almonds drops	2.0	IX	Meswak	1.0	VIII
Cinthol	3.15	VI	Aswini	3.0	V	Dabur	2.50	V
Pears	3.30	III	Kesavarthini	2.20	VI	Gopal tooth paste	2.0	VI
Medimix	3.35	II	IndhulegaBrin ga	2.20	VII	LalDuntManjam	1.2	VII
Liril	3.29	IV	V.V.D Gold	3.30	II	Local brand	1.0	IX
Wildstone	2.1	X	Others	1.1	X	others	0	-

It is inferred from the above table No 6 that in case of Soap category, among the all brand of soap category the respondent given 1st rank to Lux, Medimix is on 2nd rank and 3rd rank is given to the Pears and 4<sup>th</sup> rank is given to Liril and 5<sup>th</sup> rank is given to Hamam by the respondents. In case of Hair Oil category, among the all brand of hair oil the respondent given 1st rank to Vatika, V.V.D gold scored 2nd rank and 3rd rank is given to the Parachute and 4<sup>th</sup> rank is given to DaburAmla and 5<sup>th</sup> rank is given to Aswini. the case of the Toothpaste category, among the all brand of Tooth paste the respondent given 1st rank to Pepsodent, Colgate scored 2nd rank and 3rd rank is given to the Sensodyne and 4<sup>th</sup> rank is given to Close up and 5<sup>th</sup> rank is given to Dabour.

**TABLE NO.7**  
**SELECTED BUSINESS ORGANIZATIONS IN FMCG SECTOR AND THEIR GREEN PRACTICES**

Shampoo		
Category	Mean Score	Rank
Hindustan unilever limited	3.49	II
Indian Tobacco Limited (ITC)	2.19	V
Dabur India Ltd.	3.20	IV
Nestle India Ltd	3.51	I
Godrej Consumer Products Ltd.	3.45	III
Nirma Limited	3.12	VI
Britannia Industries Limite	3.10	VII
Gujarat Cooperative Milk Marketing Federation		

Marico Industries

It is evident from the above table no. 7 that in case of Shampoo category, among the all brand of shampoo the respondent given 1st rank to Garnier, Clinic Plus is on 2nd rank and 3rd rank is given to the Pantene and 4<sup>th</sup> rank is given to Sunsilk and 5<sup>th</sup> rank is given to Chick by the respondents. In case of Talkum Powder category, among the all brand of Talkum powder the respondent given 1st rank to Bonds, GoKul sandal scored 2nd rank and 3rd rank is given to the Yardley and 4<sup>th</sup> rank is given to Borow Plus and 5<sup>th</sup> rank is given to Axe.

**TABLE 8**  
**ANALYSIS OF KRUSKAL WALLIS TEST**

S.No	Brand awareness of FMCG and personal factors	H Value	DF	Significance	
1	Brand awareness of FMCG and age	4.201	3.0	.076	NA
2	Brand awareness of FMCG and Gender	5.501	3.0	0.067	NA
3	Brand awareness of FMCG and Educational qualification	5.014	3.0	0.560	NA
4	Brand awareness of FMCG and Income	2.554	3.0	0.131	NA
5	Brand awareness of FMCG and motivation factors	2.355	3.0	0.347	NA
6	Brand awareness of FMCG and type of family	3.566	3.0	.0564	NA
7	Brand awareness of FMCG and source of knowledge	4.566	3.0	0.128	NA
8	Brand awareness of FMCG and members of family	4.345	3.0	0.265	NA
9	Brand awareness of FMCG and Occupation of respondents	.134	3.0	0.595	NA

Source: interview scheduled

The table 8 discloses that the Major hypothesis stated in this research was “the brand awareness may have a significant influence on personal factors”. In order to test this hypothesis Kruskal - wallis test as conducted. The analysis clearly indicates that out of 9 sub variables of dependent variable personal factors, there is no significant relationship between personal factors and brand awareness. Because of the above table clearly indicates that the personal factors viz Age (.076), Gender (.067), Educational qualification (0.560) income (0.131), motivational factors (0.347) types of family (.0564), source of Knowledge (.0128), members of family (0.265), occupation of the respondent (0.295). The above table exhibits the personal factors of the respondents have no significant influence on the Brand awareness of FMCG.

## FINDINGS

- The brand awareness in rural areas particularly in respect of soap, oil, fairness cream, tea, coffee, beauty care and health care products is showing an increasing tendency. Most of the



people both from illiterate & literate groups branded products with the belief that quality is assured as the manufacturers are reputed companies. The table no.2 depicts the majority of 63.17 average score scored by Fairness Cream.

- This study shows that the people in the rural areas have a more than 60 percentage of average awareness. It denoted that in the rural area FMCG consumers they are had more knowledge about the branded products. The majority of above 60 percentage of average awareness indicate the majority development in the rural areas.
- It could be concluded from that the average awareness of the respondents in the rural market is 65.80 percentage in case of Soap, 58.90 percentage in case of Detergent soap, 52.90 percentage in case of tea.
- The majority of 65.80 percentage of average scored by soap. It could be concluded from the above table no. that the average awareness of the respondents in the rural market is 73.42 percentage in case of Shampoo, 57.57 percentage in case of Talkum Powder.
- The study depicts the majority of 73.42 percentage of average scored by Shampoo. It can be concluded from the above table that in case of tea category, among the all brand of tea category the respondent given 1st rank to Brook Bond tea , Tata Tea is on 2nd rank and 3rd rank is given to the Red Label.
- In case of Detergent soap among the all brand of detergent soap the respondent given 1st rank to Rin Supreme, Surf excel scored 2nd rank and 3rd rank is given to the Tide.
- In the case of the Fairness cream category, among the all brand of fairness cream the 1st, 2nd, 3rd, 4th ranks are given to the Fair & Lovely, Olay, Johnson's baby cream and fairever,
- It can be concluded from the above table that in case of Soap category, among the all brand of soap category the respondent given 1st rank to Lux ,Medimix is on 2nd rank and 3rd rank is given to the Pears by the respondents.
- In case of Hair Oil category, among the all brand of hair oil the respondent given 1st rank to Vatika,V.V.D gold scored 2nd rank and 3rd rank is given to the Parachute.
- In the case of the Toothpaste category, among the all brand of Toothpastel the respondent given 1st rank to Pepsodent, Colgate scored 2nd rank and 3rd rank is given to the Sensodyne.
- It can be concluded from the above table that in case of Shampoo category, among the all brand of shampoo the respondent given 1st rank to Garnier, Clinic Plus is on 2nd rank and 3rd rank is given to the Pantene is given to Chick by the respondents.
- In case of Talkum Powder category, among the all brand of Talkum power the respondent given 1st rank to Bonds, GoKul sandal scored 2nd rank and 3rd rank is given to the Yardley. The Major hypothesis stated in this research was "the brand awareness may have a significant influence on personal factors'. In order to test this hypothesis Kruskal - wallis test as conducted. The analysis clearly indicates that out of 9 sub variables of

dependent variable personal factors, there is no significant relationship between personal factors and brand awareness. The table clearly indicates that the personal factors viz Age (.076), Gender (.067), Educational qualification (0.560) income (0.131), motivational factors (0.347) types of family (.0564), source of Knowledge (.0128), members of family (0.265), occupation of the respondent (0.295). The above table exhibits the personal factors of the respondents have no significant influence on the Brand awareness of FMCG.

## CONCLUSION

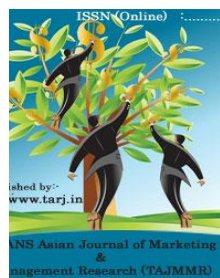
The democratic background of the rural consumer plays a vital role in determining the behavioral aspect as well as the royalty of brand. The research concludes that the customers based brand preference of the FMCG in rural consumer. In recent years, rural markets have acquired significance role play in different countries like India. On the base, the overall growth of the economy has resulted into substantial increase in the purchasing power of Fast Moving Consumer Goods (FMCG) in rural communities. It is clear from the above study that respondents of different gender groups have different attitude towards the various brand products. There is an increasing trend among the people of rural areas about the awareness of various brands of the daily consumption goods. People of rural areas are becoming more conscious about their health and other aspects of life. This change in the attitude to spend more on the highly priced branded products among high income groups in rural areas clearly suggests that there is an ample scope for such products to capture the markets in these areas by increasing the supply of these products. It concludes that, advertisement is the most important factor to create awareness about product on rural markets. The more awareness need of the hour is only to make aware the rural customers regarding the brand availability of daily consumption. The study determined the brand preference of consumers there are having more knowledge about product, quality, quantity, availability of brand, seasonal promotion, and discount offer.

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL



## A STUDY ON ANALYSING HAZARDOUS COTTON WILLOW WASTE AND CHARACTERISATION OF ECO-FRIENDLY NON WOVEN PRODUCT

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### ABSTRACT

*Environmental awareness has become the quintessential concept that every industry is willing to learn and implement. Textile industry is evolving into a giant multidimensional sector with a huge volume of export and import growing every day. Sustainability being the key word in the current scenario, the industry has shifted its paradigm to eco-friendly production. Among the various sectors, spinning is one of the very promising sectors of Indian Textile Industry. The process involves cleaning and combing of raw cotton. The resultant continuous filament obtained by twisting the cleaned fibers is called a yarn, which will be the raw material to make any textile material. In this protocol of steps involved in fabric production, Spinning is one the basic and significant step and the yarn production expels different types of cotton waste as a result of cleaning. Majority of the wastes are used for making non- wovens. But the repeated cleaning leaves a final trash called 'willow waste'. This less explored organic waste was chosen for the study and up-cycled into a non woven textile and the properties were tested. The developed wet wipe was found to be a good alternative to synthetic polypropylene sheets and OMMC test suggested the moisture absorption property is good. The flushability test which*

*enables to give an understanding about the disintegration nature of the wipe when flushed in the toilets was conducted on the sample which suggested the product to be a good recommendation for an organic wipe.*

**KEYWORDS:** *Willow Waste, Textile Recycling, Sustainable Products, Cotton Waste*

## 1. INTRODUCTION

Textile products are significant in a person's life. It can be a cotton shirt, woollen pant, nylon sari to non woven made bindi for face, interiors of car, and the list goes to perpetuity. Huge varieties of design variations are possible and every step of production leads to some kind of pollution. The industry is getting more awareness in creating products with less pollution. The major reason that serves as a driving force is shift from industry based product to product based manufacturing. This explains the need to be focused on analysing, formulating, assessing quality at each step in the making of a textile product.

Spinning is the basic step in textile production that converts the short fiber to long yarn, but combing the fibers, removing short fibers and adding twist. The short unwanted trash will be again recycled many times to separate good quality cotton that will be used for non wovens. Eg: Sanitary napkin filling, bed stuffing, paper making, crackers and explosives production. There is a last trash that was identified which has no end use and therefore was chosen for further analysis.

The examined trash was coined as "willow waste", which was hazardous in nature. It had the capability to cause severe lung disorder in spinning mill workers, risk of fire hazard when stored in go down. Reports pointed that every year approximately 2, 10, 000 tons of cotton dust (non-saleable waste) is produced during yarn manufacturing process. Cotton Corporation of India Limited released the statistics on cotton consumption by textile mills that showcase 36.62 % (16, 38, 295 metric tons) of cotton is used by the mills from Tamilnadu. Thus regional problem of Tamilnadu was selected hypothesis was framed.

The major objective of the study was to collect the background information about the willow waste, to test and report its characteristic feature based on tested parameters, to conduct pilot studies that enable in identifying suitable sustainable product that can be developed using this willow waste, to test the prepared product and suggest its economical viability of the developed product.

## 2. MATERIAL AND METHODS:

### 2.1. Selection of unexplored cotton waste

The spinning was approached and its sustainability factor and awareness of eco-norms and labour health was assessed and documented. The information on the history of the different types of waste and the life cycle of those wastes were studied.

### 2.2. Collection and testing of selected cotton waste

The analysis of collected last trash 'willow waste' from the spinning mills godown was then taken by random sampling to the environmental sciences department, TNAU and was tested for the basic composition and presence of microorganisms. Various pilot studies to understand the length of fibers in the waste, the soil burial test to understand the degradability nature of the waste and mixing with other unprocessed textile organic waste like silkworm cocoon, coir and jute waste was conducted.

### **2.3. Production of textile wipes**

From the pilot study, it was identified that the selected lingo-cellulosic waste has the potential to be used as an absorbing material like wipe. Thus the waste was collected from spinning mill and then take to a KVIC (Khadi Village Industries Commission) certified eco-friendly handmade production unit in Erode and sheets were made. They were cut into the standard dimension 5x5 inches to enable further refinement of the product

### **2.4. Testing of the prepared non woven wet wipe**

The coating liquid for the developed willow waste wipes was prepared using lemon rind and aloe-vera based on the literature survey. Pilot studies were done to optimize the best time, temperature and pressure. Using the developed data's the wipes were given a coating of this liquid consortium prepared in the Bio-textiles laboratory, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

The wipes made from willow waste was tested for GSM, thickness, cobb value, elongation, tearing index, tensile index, burst, folding endurance number, water absorption and moisture content. The values were compared with the commercially available handmade papers prepared from textile and agro wastes.

### **2.5. Assessment of economic viability of the prepared textile wipes**

The sample was tested for its property to be a cleansing wipe, its moisture management capability and flush ability properties and reported.

## **3. RESULTS AND DISCUSSION**

### **3.1. Evaluation of willow waste handmade paper**

The GSM of handmade paper is  $410 \text{ g/m}^2$  and thickness 1166 microns. The cobb's value is tested to be 530. The elongation of the paper is 5.4%, tearing index is  $8.8 \text{ mN.m}^2/\text{g}$ , tensile index is  $10.52 \text{ Nm/g}$  and burst is  $0.81 \text{ Kpa.m}^2/\text{g}$  respectively. The folding endurance number or fold ability is 77. The water absorption is 4 mm/min and moisture content is 6.9% respectively.

### **3.2. Evaluation of willow waste wiping sheet**

The pH of the aqueous extract is 4.22 and in water it is 6.87. The sinking time of the willow waste wipe is 3.4 seconds. The water holding capacity is 96%. The wetting time top (sec) is 5.831 seconds, wetting time for bottom is 7.3124, the top absorption rate  $59.6601(\%/ \text{sec})$ , the bottom absorption rate  $40.3677(\%/ \text{sec})$ , the top max wetted radius 17 (mm), the bottom max wetted radius is 17 (mm), top spreading speed is  $2.1567(\text{mm}/\text{sec})$ , the bottom spreading speed is  $1.8946(\text{mm}/\text{sec})$ , the accumulative one-way transport index  $143.6603(\%)$  and the overall



moisture management capacity (OMMC) was calculated to be 0.1623. The flushability tests confirmed that the complete breakdown after 115 cycles. The overall weight loss during the test was found to be 8.5%, indicating low particle disintegration, which may be due to the absence of pre-processing in terms of size reduction to produce the wiping sheets. The maximum weight loss was in sieve of 4mm diameter and minimum in 12mm diameter.

### 3.3. Evaluation of willow waste aloe-vera lemon finished wiping sheet

The pH of the aqueous extract is 4.22 and in water it is 6.87. The pH values indicate that the willow waste wipe sample is slightly acidic, which may be due to the presence of lemon in the aloe vera-lemon finishing given on wipes. The top and bottom wetting time is 5.831 and 7.31 seconds respectively where as the top and bottom absorbent rates are 59.66 and 40.37 seconds (%) respectively). The top max wetted radius was 17 (mm) and the bottom max wetted radius was 17 (mm). Top spreading speed was 2.1567(mm/sec) and the bottom spreading speed was 1.8946 (mm/sec). The accumulative one-way transport index 143.6603(%) and the overall moisture management capacity (OMMC) was calculated to be 0.1623.

The finger print of moisture management properties concludes that the willow waste wiping sheet is fast absorbing and slow drying which is important for a wiping cloth. The water holding capacity was 96% that confirms lesser compactness of the fabric. The overall moisture management capability (OMMC) is 0.162 and graded to be poor according to the AATCC - 195 standards. This explains the incapability of the material in managing liquid moisture and liquid transfer from one surface to another. The overall weight loss is 8.5% and weight loss in the sieve of 12mm, 6mm, 4mm and 2mm diameter was 24.9%, 91.1%, 96.5% and 95.8% respectively. The sinking time is 3.4, which is less than the sinking time of fabrics, that is normally ten seconds

The flush ability tests confirmed complete breakdown after 115 cycles. The overall weight loss during the test was found to be 8.5%, indicating low particle disintegration, which may be due to the absence of pre-processing in terms of size reduction to produce the wiping sheets. The maximum weight loss was in sieve of 4mm diameter, and minimum in 12mm diameter. Hence the prepared wipes may not be compactable with the existing flushable system because the result shows a breakage of two to four pieces after 20 and 40 cycles respectively. However, the test results conducted by prove that large particle size were easy to disperse than small ones.

### 3.4. Cost comparison of willow waste wipes:

The table below gives a comparison of the willow waste wipes with that of the commercial ones.

<b>Wipes</b>	Kitchen wipes made from polypropylene *	Rs. 200 / 42 pieces
	Kitchen wipes made from polypropylene *(e-bay)	Rs. 169 / 5 pieces
	Degradable Wipes made from cotton*	Rs. 16 / piece
	Willow waste <i>Aloe-vera</i> Lemon finished wipes** (8 sheets)	Rs. 8-9 / piece



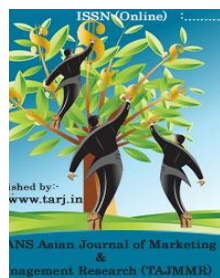
#### 4. CONCLUSION

The leading non-woven manufacturers are shifting to manufacturing of flushable or degradable or compostable bio-based materials. The best example is the famous American based company in California, 'Clorox' which has developed a range of products that uses natural household cleaning products in the making of the product. The headlines like these justify the fact that the non woven market has huge potential and a research in this arena focusing on eco-friendly wipes is the need of the hour. The flush ability property and moisture transfer property can be made better by scaling down the size of the fiber particles by intense grinding during the production of wipes.

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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

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UGC APPROVED JOURNAL



## SOCIO-ECONOMIC STATUS OF THE WOMEN WORKERS EMPLOYED IN BHARATHI TEA FACTORY: A CASE STUDY FROM KIL-KOTHAGIRI, NILAGIRI DISTRICT, TAMILNADU

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### ABSTRACT

*The inclusive growth approach focuses on productive employment rather than on direct income redistribution. It is, therefore, inherently sustainable as distinct from income redistribution schemes which can in the short run reduce the disparities between the poorest and the rest. In order to achieve sustained economic growth, empowerment of women is essential. In this context, the present study on socio Economic status of women workers of tea Bharathi tea exporting factory in kothagiri, in Nilgiris district has been undertaken with the following objectives; to study the export of tea from India to other principal countries; to study. State-wise yield of tea from 2001 to 2010; to study Tea Plantation in South India and to study the socio economic status of the women workers employed in tea factory. The study based on primary and secondary data with the help of 50 women workers in Bharathi tea exports industry has taken. The study found that present wage the women earn is not adequate to run their family. They are not able to provide higher education to their children. Only thing they appreciate is that they have free rented house and tax free water facility. At the same time, women workers saved a portion of their income for the life security and for their future. Indirectly, these women workers are expected to contribute a share in the household level saving which will strength the capital formation of the country to undertake and expand the infrastructural facilities in the hilly region/s of in the long run. Therefore, government should take/ encourage effective steps to promote Women empowerment by providing more employment in the hilly areas*

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**KEYWORDS:** *Focuses, Redistribution, Empowerment, Disparities, Integral*

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## INTRODUCTION

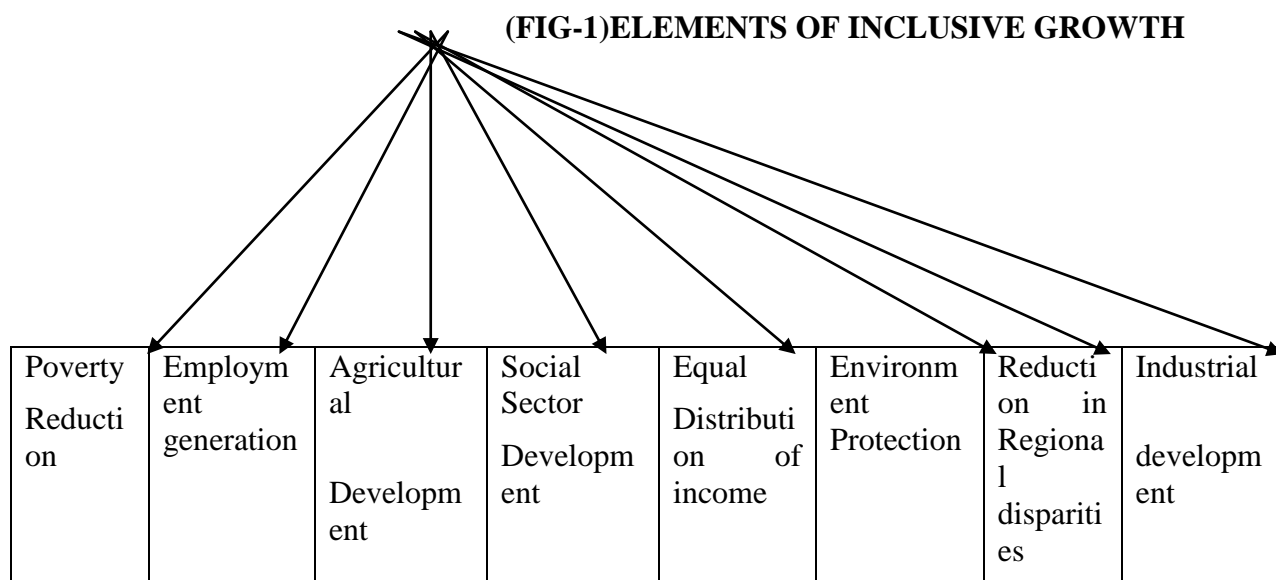
Inclusive growth refers to both pace and pattern of economic growth. Considering the literal meaning of the two words of the term and back ground ideas, the clarification appears most acceptable among others. There is a fine distinction between direct income redistribution or shared growth and inclusive growth. The inclusive growth approach focuses on productive employment rather than on direct income redistribution. It is, inherently sustainable as distinct from income redistribution schemes which can in the short run reduce the disparities between the poorest and the rest. In other words, income redistribution schemes allow people to benefit from economic growth in the short run. Inclusive growth enables poor people to contribute to and benefit from economic growth. So, participation of poor people in productive employment is integral part of inclusive growth and it ensures equal access opportunity for all in the growth process. Apart from addressing the issue of inequality, inclusive growth strategy makes the poverty reduction efforts more effective by creating opportunities for the vulnerable sections of society. According to one relevant document of the Planning Commission of India (Planning Commission, 2007), the concept "Inclusion" should be seen as a process of including the excluded as agents whose participation is essential in the development process, and not welfare targets of development programs.

Since independence, improvement in India's economic and social development made the nation to grow strongly in the 21st century. The following factors enable the India to focus on inclusive growth.

- (1). India is the 7th major country by area and 2nd by population. It is the 12th largest economy at market exchange rate. Yet, development is not visible in India and it's the neighborhood nation, i.e., China is progressing at speedy rate.
- (2). The exclusion in terms of low agriculture growth, low quality employment growth, low human development, rural-urban divides, gender and socialize qualities, and regional disparities etc. are the problems for the nation.
- (3). Decreasing of poverty and other disparities and rising of economic growth are major objectives of the nation through inclusive growth.
- (4). Political leadership in the country plays a vital role in the overall development of the country.
- (5). Studies assessed that the cost of corruption in India amounts to over 10% of GDP. Corruption is one of the ills that prevent inclusive growth.
- (6). though child labour has been banned by the law in India and there are stringent provisions to deter this inhuman practice. Still, many children in India are unaware of education as their lives are spoiled to labour work.
- (7). Literacy levels have to rise to provide the skilled workforce required for higher growth.

(8). Achievement of 9% of GDP growth for country as a whole is one of the boosting factor which gives the importance to the Inclusive growth in India.

(9). Inclusiveness benchmarked against achievement of monitor-able targets related to Income & Poverty, Education, Health Women & children, Social sector development, Environment, and equal distribution of income. The interrelated elements of inclusive growth is presented in (Fig-1).



Numerous social, political and economic factors need to be tackled for sustaining a high rate of growth, as well as to make this growth inclusive. Indian society has to seriously introspect major issues such as eradication of child labour, women empowerment, removal of caste barriers and an improvement in work culture.

In order to find out the improvement in the social status of selected women in hefty area, the present study has been under taken. In this context, the present study on 'socio Economic status of women workers of tea Bharathi tea exporting factory in kothagiri, in Nilgiris district' has been undertaken with the following objectives. And also to find out how far empowerment of women among in terms of employment has helped to achieve sustained economic growth in the selected area.

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

1. To study the export of tea from India to other principal countries
2. To study. State- wise yield of tea from 2001 to 2010
- 3.. To study Tea Plantation in South India
  - a) State wise area (in ha) under tea cultivation
  - b) Share of Tea Tamil Nadu in South India
4. To study the socio economic status of the women workers employed in tea factory

India is the second largest tea producer country in the world after China. Plantations here are located mostly in the North East and South regions like West Bengal, Assam, Tamil Nadu and Kerala. Over time, there have been many small-scale plantations in areas like Karnataka, Tripura, Manipur, Sikkim, Mizoram, Bihar, Uttaranchal, Nagaland and Arunachal Pradesh. India has the upper hand over other exporting countries with a binary manufacturing base for tea production. There's mass preference for orthodox tea as people here are more attuned to its taste and preparation. **Green tea** production in India has been relatively confined and the country faces a linked competition from Sri Lanka, Kenya, China, Indonesia and Vietnam. Teas are of three grades (i) Leaf grades, (ii) Broken grade (iii) Dusts. The process of tea includes (i) withering (ii) Rolling (iii) Crushing- tearing and curling method-CTC method (iv) LTP method, the Lawry tea process (v) oxidation (fermentation) method (vi) Drying, to stop the oxidation process, the tea is passed through hot air dryers. (vii) Packing :tea is normally packed in wooden boxes and exported. The Indian Tea Plantation Industry has faced adverse climatic changes with adroit capabilities. Water shortages and acute agro-related problems have not deterred companies working for the long-term preservation of the country's favorite beverage. Many big manufacturers have joined hands to beat the adverse effects of global warming and have allowed a decent employment to millions of people of the backward class.

India and China rank first and second, respectively, both in tea production & consumption. Both the countries account for nearly half of world's tea output exporting about 75 percent of their production, and 25 percent for home consumption. This is because of high consumption of tea in both these countries. Their contribution in world tea exports is also equivalent at 17 percent but the production accounts for 30 percent as against 23 percent of China. Other countries like Kenya, Sri Lanka and Indonesia produce only 25% of world tea but control 50 percent of the global trade. They export more than 90 percent of their production. South India has been playing a major role in the global production, consumption and export of tea. It continues to be a leader in national tea production. Tea in South India is cultivated in an area of 1, 20,181 ha account for 20.69 percent of the national acreage. Area Under tea in Tamil Nadu has increased from 75,625 to 80,903 ha between 2001 and 2010, while in Kerala there has been a marginal increase in the area from 36,940 to 37,139 ha during the same period as above.

## METHODOLOGY

The required data for the present study on 'Socio-economic status of the women workers employed in Bharathi tea factory: A case study from Kil-Kothagiri, Nilagiri district, TamilNadu is based on both primary and secondary data.

## SAMPLING

Total number of workers in select tea estate was 1100. Of which, 600 were male workers and 500 were female workers. Out of 500 female workers, 10 percent of the female workers were selected. A total of 50 female workers employed in select tea factory were selected, presented in table (4). The questionnaire was prepared to find out their socio economic status.

The pilot study and the actual survey was adopted as the main procedure for data collection. The use of this method would contribute to accurate and high quality data. The data collection process, the researcher began with an interview for which interview question covering four

issues: (1) Living condition,(2) wages and earning (3)social security benefits of the women workers and the saving level of the women workers employed in the selected factory Tea These three issues helped to identify the social and Economic status of women workers at the tea plantation sectors.

To study the economic status of the women workers, saving behavior of the selected women workers, studies conducted earlier were reviewed. Rehman et.al (2010), Issahaku (2011) Delarosa Paim (2011) Akpan et.al (2011) Humyra Jabeen Bristy (2014) Deepak sood and Navdeep Kaur (2015)

### 1. Export of tea from India to other principal countries

Tea industry in south India has made significant paces on productivity front. As compared to the production in 2001 the output had gone up by around 14 percent by 2010. Much of the increase could be attributed to improvement in productivity as the land under tea cultivation has shown as increase of five per cent only. The export of tea from India to principal countries is presented in table (1). Over a period of time from 1990-1991 to 2007-2010, there has been an upward growth in the tea export from India to other foreign countries viz., Germany, Iran, Russia, U.A.E.

**TABLE (1) EXPORT OF TEA FROM INDIA TO IN PRINCIPAL COUNTRIES**

commodity	1990-91	1995-96	2000-01	2001-2002	2002-2003	2003-04	2004-05	2005-06	2006-07	2007-10
Tea										
Germany	42.2	75.5	92.9	86.5	95.3	125.5	119.2	112.8	101.1	109.2
Iran	61.8	5.4	53.2	39.4	11.8	8.5	113.1	80.9	100.6	171.7
Russia	59.73	476.6	479	403	287.1	260	234	237.8	279.1	285.2
U.A.E.	30.1	131.3	270.2	238	247.4	261.9	271.8	242.2	177.4	286.6
Total	1070.1	1171.1	1788.7	1719.2	1652.1	1637.4	1840.3	1730.7	1969.5	2034.2

Economic Survey, various Issues, Government of India

**TABLE (2) GROWTH RATE OF EXPORT OF TEA FROM INDIA TO PRINCIPAL COUNTRIES (MODEL SUMMARY AND PARAMETER ESTIMATES)**

Countries/ model summary	Compound Growth	Exponential growth
Germany	7.8	7.8
Iran	21.0	21.0
Russia	3.1	3.1
U. A. E.	13.5	13.5



Over all	5.8	5.7
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Export of tea to Iran country had grown to the tune of 21 percent, followed by U.A. E. countries by 13.5 percent. Export growth rate was 7.8 percent for Germany; lowest growth rate of 3.1 percent was witnessed for Russia. An overall growth rate for all these countries specified in the present study was 5.8 percent. Exponential growth rate was also done for the selected countries in the study which also confirmed that there was no difference in the growth rate. Therefore, India has to identify the demand for Indian tea to other countries also.

## 2. State wise yield of Tamil Nadu, Kerala, Karnataka and south India:

The plantation sector in India plays a vital role in the economy of three Southern states, Kerala in Rubber, coffee, Spices, Tamil Nadu in Tea and Karnataka in coffee. The state wise yield of TamilNadu, Kerala, Karnataka and south India is presented in table ( ) In Tamilnadu ,the yield was 1751 in 2001, increased to 2110.( 369 kg)In Kerala, the yield has increased from 1764Kg to 1798Kg.in 2010.,(34kg) For Karnataka, the tea yield was 2615 Kg in 2001 to 2754 in 2010 (an increase of 139 Kg)

(TABLE-2)STATE- WISE YIELD (KG MADE TEA/HA) FROM 2001 TO 2010

YEAR	TAMIL NADU	KERALA	KARNATAKA	SOUTH INDIA
2001	1751	1764	2615	1771
2002	1893	1563	2741	1802
2003	2203	1569	2446	2004
2004	2146	1675	2641	2003
2005	2022	1591	2545	1899
2006	2014	1641	2547	1910
2007	1984	1507	2423	1845
2008	2108	1893	2839	2054
2009	2093	1857	2740	2031
2010	2110	1798	2754	2025

Source: Tea Statistics and UPA

## 3. Production and Productivity of Tea Plantation in South India

The plantation sector in India plays a vital role in the economy of three Southern states, Kerala in Rubber, coffee, Spices, Tamil Nadu in Tea and Karnataka in coffee. The total plantation area is e around 17.2 lakh hectares

South India has been playing a major role in the global production, consumption and export



of tea. It continues to be a leader in national tea production. Tea in South India is cultivated in an area of 1, 20,181 ha account for 20.69% of the national acreage. Area Under tea in Tamil Nadu has increased from 75,625 to 9867 ha between 2001 and 2010, while in Kerala there has been a marginal increase in the area from 36,940 to 37,242 ha during the same period as shown below. In Karnataka, the area under tea cultivation has increased of 13 ha only, which has been presented in table(3a).

**TABLE (3A) STATE WISE AREA (IN HA) UNDER TEA CULTIVATION**

Year	TamilNadu	Kerala	Karnataka	South India
2001	75625	36940	2128	114693
2002	75619	36967	2128	114114
2003	75615	36967	2128	114114
2004	75978	37107	2128	115213
2005	80939	35772	2128	118839
2006	81279	36236	2137	119652
2007	80903	37139	2141	120183
2008	80903	37139	2141	120183
2009	80903	37139	2141	120183
2010	80903	37139	2141	120183
2011	80903	37139	2141	120183
2014	92527	37139	2180	120183
2016	98627	37242	2417	138286

Source: Tea statistics and UPASI

#### State- wise production from 2001 to 2016

#### Share of Tea in Tamil Nadu in South India

EAR	TAMIL	KERALA	KARNATAKA	SOUTH
	NADU			INDIA
2001	131.83	65.85	5.44	203.12
2002	141.84	59.18	5.71	206.73
2003	166.57	58.01	5.27	229.85
2004	163.02	62.15	5.62	230.78
2005	154.60	67.03	5.38	227.01

2006	152.27	68.76	5.26	226.29
2007	153.13	61.83	5.03	219.99
2008	170.53	70.29	6.08	246.90
2009	169.36	68.96	5.81	244.13
2010	170.72	66.75	5.90	243.37
2014	174.71	63.48	5.52	243.71
2016	178.67	64.27	5.57	252.74

Source: Tea statistics and UPASI

In the production arena, South India occupied a predominant role as one of the largest tea producer in India. South India contributes about 25percent of the national output and the industry has recorded enviable growth in production during the last one decade from a level of 203.12 m.kg in the year 2001 to 243.37 in 2010. Regarding the production of Tamil Nadu, it was 171 m.kg and it was 67 m.kg in Kerala. Karnataka produced around 5.9 m.kg annually. In 2016, south India had produced 253 mkg, where as in TamilNadu, Kerala and Karnataka, annually tea production was 179, 64, and 6 mkg respectively.

### **Socio economic Profile of the Women Employees**

An in depth was conducted to find out the socio-economic status of women workers in the selected Tea factory. The details on socio-Economic factors of the women workers employed in Bharathi Tea Exporting factory is presented in table (4)

In tea Plantation Industries, most of the worker employees employed are women due to heavy work load and less wages facility they are facing many problems. The women workers in the plantation are engaged in 8 hours work. The salary is revised from Rs.102 to Rs.154 per day but also they are not able to fulfill their needs. The table 4 reflects that 84 percent of the respondent belongs to married and 16 percent being single in their marital status. Under nature of Employment 84 percent is permanent and 16percent is temporary workers. Thus, it is clear that the most of the respondent are permanent employment. In the level of education 56 percent are literate and 44% are illiterate. 64percent belong to small family size (1-3 members), 24 percent belongs to medium size (1-5 members) and 12percent belongs to large family size (above 5 members). This shows that the most of the respondent belongs to small family size. 1percentof the women worker receives their wages daily, since they are engaged in contract work, 36percent of the worker receives their wages weekly because they are temporary workers and 54percent receive their salary monthly since they are permanent. 70 percent eligible for provident fund recovery and 30percent not eligible for the recovery. That is the entire industries recover provident fund for the permanent workers but only few industries deduct the provident fund for temporary workers. From the view of the respondent 80 percent of the respondent receives the bonus properly and promptly and 20percent don't receive their bonus properly and promptly. 90percent says that they are not adequate with the salary provided and 10 percent are adequate with the salary. 70 percent of the respondent is provided with one rest interval, 30percent is

provided with two rest interval and no one have three rest interval. 80percent all the workers are provided with free rented house 80 percent provided with maternity benefits and 20 percent are not provided maternity benefit. 96 percent has crèche facility and four percent they don't have crèche facility for their children. The study revealed that the salary structure for the employees is not adequate to them.

**TABLE (4) SOCIO-ECONOMIC FACTORS OF THE WOMEN EMPLOYEES**

Variable	Classification	Number of respondents	Percentage	Variables/classification	Number of respondent	percentage
1.i) Marital status	Married	42	84	(v) Community		
	Single	8	16	BC	28	56
	Total	50	100	MBC	22	44
ii) Nature of employment	Permanent	42	84	Total	50	100
	Temporary	8	16	(vi) Religion		
	Total	50	100	Hindu	10	20
iii) Educational level	Literate	28	56	Christian	20	40
	illiterate	22	44	Muslim	20	40
	Total	50	100	Total	50	100
iv) Family size	Small(family members) 1-3	32	64	(vii) Type of family		
	Medium(1-5)	12	24	Nuclear	37	74
	Large(above 5)	6	12	Joint	13	26
	total	50	100	Total	50	100
Pay period	Daily	5	1	(viii) Monthly income		
	Weekly	18	36	Less than 10,000	20	40
	monthly	27	54	10,000-15,000	15	30
	Total	50	100	15,000-20,000	5	10
Provident fund	Deducted	35	70	20,000-30,000	10	20
	Not deducted	15	30	30,000 and above	-----	---
	Total	50	100	Total	50	100

iii) Bonus payment	Bonus paid	40	80	(ix) Amount saved		
	Bonus not paid	10	20	Rs. 1000-3000	35	70
	Total	50	100	3000-5000	10	20
iv) Wage Adequacy	Adequate	5	10	5000-7,000	5	10
	Not adequate	45	90	Above 7000	----	-----
	Total	50	100	Total	50	100
3.i) Rest interval	One interval	35	70	(x) Reasons for saving		
	Two interval	15	30	For children's education	20	40
	Three interval	0	0	Security	15	30
	Total	50	100	To meet contingencies	10	20
ii) Housing facility	Provided	50	100	Purchase land	5	10
	Not provided	0	0	Total	50	100
	Total	50	100			
iii) Maternity benefit	Provided	40	80	Pattern Of Savings		
	Not provided	10	20	a) Life insurance	19	36.4
	Total	50	100	b) Post office savings	9	11.3
iv) Crèche Facility	Provided	48	96	c) Deposits In the bank	20	47.2
	Not provided	2	4	Public provident fund	2	5.1
	Total	50	50	Total	50	100

Source: field Survey, 2017

Workers are providing various facilities provided such as monetary and non -monetary benefits. Under the monetary benefits for the permanent women workers get incentive, Bonus, Leave Travel Allowance, Dearness Allowance and maternity benefit and as an non -monetary benefits they receive Free medical facility for them and their dependent, For twenty worked days they get one day leave with wages as annual leave as per their worked days, 14 days sick leave, Maternity leave for three months, Free rented houses for all the employees and crèche facility for their children. Temporary employees if they work for 90 days they will also get bonus benefit and maternity benefit, incentives, crèche facility and free rented house.

## CONCLUSION

An in depth was conducted to find out the socio-economic status of women workers in the selected Tea factory in Kothagiri. The questions were framed to understand the living condition, Employment status, i.e. whether they are permanent or temporary, amount earned swages and the benefits they received in the form of crèche. The nature of work is very hard, for them because they are engaged in eight hours work. Since the region surrounding the plantation remains undeveloped so that the women workers have no source of other employment except to go for tea related work, to improve their living condition. They expressed that present wage they earn is not adequate to them to run their family. They are not able to provide higher education to their children. Only thing they appreciate is that they have free rented house and tax free water facility. At the same time, women workers saved a portion of their income for the life security and for their future. Indirectly, these women workers are expected to contribute a share in the household level saving which will strength the capital formation of the country to undertake and expand the infrastructural facilities in the hilly region/s of in the long run. Therefore, government should take/ encourage effective steps to promote Women empowerment by providing more employment in the hilly areas

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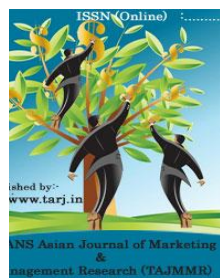
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UGC APPROVED JOURNAL



## PROBLEMS AND PROSPECTS OF AYURVEDIC MEDICAL TOURISM A STUDY WITH SPECIAL REFERENCE TO KOCHI

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### ABSTRACT

*Tourism is a major phenomenon of modern society with significant socio-economic consequences. World Travel and Tourism Council (WITC) have identified tourism as world's most rapidly growing industry. Ayurveda is the ancient health science developed as a result of centuries of long research work of eminent scholarly. The word Ayurveda means "knowledge of life". The study is intended to bring to the limelight impact of the spread medical tourism at Kochi focussing on various types of treatments, attractions of Kochi, variety of foods, SWOT of Kochi, Kerala Tourism Industry. The IATO convention that held in Kochi highlight a singular and unique fact that "tourism is becoming a people's movements in Kerala and every politician, Every panchayat and local administration is more aware of the great potential of the sector: Besides, there is also the problem of resource constraint. In spite of all these constraints, the researcher feels that a modest, but serious and sincere attempt has been made through out. Inadequacy of time is also another limitation. However the growth of tourism also brings in its train a lot of evil effects too. Yet, in spite of this, concepts like Medical tourism seem to add to the growing popularity of this pristine destination. The study covers the impact of Medical tourism at Kochi only. Also it brings attention to the drawbacks, weaknesses, threats etc faced by the tourists.*

**KEYWORDS:** Njavarakizhi, Dhara, Sirovasthi, Udavarthanam, Snehapadam, Kizhi, Dhanyam



## INTRODUCTION

Tourism in Kerala is passing through a significant phase of growth and development. The sustained efforts of the Department of Tourism over a period of several years have played a crucial role in achieving this momentum and direction. The department of Tourism is committed to preserving this trend and working towards long term goals of establishing tourism as a major development factor in the state, with improved infrastructure and other better publicity, the department of tourism hopes to receive more tourists, both domestic as well as international in the seasons to come. Better hotels, restaurants and other facilities alone will not develop tourism. Along with the department of tourism efforts to facilitate adequate infrastructure for the same, it is equally important that step to be taken to create and maintain a collective mind-set among the people of the state with a positive orientation towards tourism and hospitality. We have to re-establish the traditional Indian concepts of '*atithidevobhava*' in the tourism industry. Our motto should be 'to receive a guest and to send back a friend'. Tourism industry can develop only with the co-operation and wholehearted patronage of friendly and hospitable host community. It is with the objective that the department of tourism is envisaging a massing awareness campaign in the state.

'*Growth with responsibility*' is the present mantra for Kerala tourism as the state continues to grow, consolidates and diversifies all together. Tourism marches forward as the single largest economic activity for its people, E.K Bharat Bhushan, Principal Secretary to Tourism, Government of Kerala speaking on the growth for last year, said that the impact of Tsunami was minimized as the state tourism department responded fast and within two weeks of the disaster; it was difficult to find rooms in Kerala. Tourism according to him is key driver. He pointed out that recently when president APJ Abdul Kalam Unveiled the 10 point mission statement for Kerala, Tourism ranked first. That is where he sees tourism in Kerala.

### National Recognition for Kerala Tourism

Kerala Tourism walked away with the prestigious Galileo express Travel and Tourism award for the Best state Tourism Board. In a glittering ceremony hosted at the Oberoi, Mumbai on 7<sup>th</sup> December 2005, principal secretary (Tourism) Mr. E.K. Bharat Bhushan collected award to Kerala. The government has realized the importance of tourism in generating employment and it has actively taken up the task of promoting tourism both domestically and internationally. The IATO convention that held in Kochi highlight a singular and unique fact that "tourism is becoming a people's movements in Kerala and every politician, Every panchayat and local administration is more aware of the great potential of the sector:..

### Kochi – The Queen of Arabian Sea

As the monsoon winds bring rain to the shores of Arabian Sea, the earth is transformed. This is when myriad insects, frogs and toads emerge. Then the young ones are born to fest on the bountry of the green mangroves and the backwaters, river berates with mating calls of the innumerable water birds. The monsoon is a season of plenty and magic. Streams, lagoons and brook break their banks and provide nourishment to springs and shrubs that sprout from every available space.

This is 'Kochi'-undoubtedly the most fascinating tourist spot in Kerala, God's Own country'. Kerala has achieved the renown as one of the beautiful places on the earth. The national Geographical Traveler lists it among the 50 most beautiful places in the world. And Kochi is the paradise within the paradise.

Kochi, the commercial and industrial capital of Kerala, has one of the finest natural harbours in the world. Ancient mariners from Arabia, China, Holland, Britain and Portugal have all left their marks on this beautiful island city-Most of the cities commercial centres and shops are located in the town called Ernakulam, which also lend its name to the district.

Kochi is the jewel in the crown of Kerala with true cosmopolitan character, with one of the finest natural harbours of the world, breath taking blue lagoons and lush green islands; it is called the Queen of Arabia Sea. It is the biggest port in Kerala and from here; ships set sail for foreign ports with spices, rubber; coir and fish. Prime attractions of the Kochi are Bolghatty palace. Dutch palace, Jewish Synagogue, Cheeyappara waterfalls etc. The backwaters are a home to a variety of species of both fauna and flora. Water birds and migratory birds are plenty and the backwaters are rich with marine life namely the exclusive Konju (tiger prawns), Njandu (crabs), chemeen (prawns) and many more.

### **Nature and Scope of the Study**

This study is exploratory and analytical in nature. This study is confined to the growth of medical tourism in Kochi. The study is related to measurement of both positive and negative aspects of medical tourism. The scope of the study is confined to tourists domestic and foreign, tour operators and Hotels and local people, not to forget those connected with Ayurveda. The study covers the impact of Medical tourism at Kochi only. Also it brings attention to the drawbacks, weaknesses, threats etc faced by the tourists.

### **OBJECTIVES OF THE STUDY**

The study is intended to bring to the limelight the impact of the spread of medical tourism at Kochi. The problems faced by medical tourism industry and the prospects open to this relatively new branch of tourism in a busy tourist place like Kochi are to be analysed.

### **SECONDARY OBJECTIVES ARE:**

- To find out the pros and cons of tourism industry
- To know about the opinion of tourists attractions.
- To make suggestions and recommendations on the basis of findings.

### **DATA AND METHODOLOGY**

The following methodology has been adopted to carry out this work.

### **COLLECTION OF DATA**

This study is based on primary and secondary data. Primary data was collected with the help of interview schedule. Data was collected from the tourists, tourist hotel operators and local people. Direct personal communication with tour operators, tourist guides, employees under tourism department, and local people of Kochi etc. has been much helpful in the study. Three well

structured questionnaires are issued and collects the relevant information obtained is used for the analysis of the data. Secondary data were collected from journals, magazines, books, newspapers and various websites. Secondary data was mainly used for literature review in order to develop a theoretical background.

### **SAMPLE DESIGN**

The researcher has made use of the convenience sampling technique. The sample size comprised 30 tourists, 5 hotel operators and 15 local people.

### **HYPOTHESIS**

**Ho:** The rank correlation between male & female respondents regarding their views on the problems brought in by tourism to Fort Kochi is statistically insignificant.

### **LIMITATIONS OF THE STUDY**

A study of this nature, of course, faces limitations and entails constraints. The inherent limitations of sampling theory might have affected this study too. There was non-cooperation on the part of some hotels and tourists to disclose necessary information. The class of respondents covered by the study falling under varied categories is a reason for restricting the sample size under each varied category of respondents and as such the law of inertia of large numbers will apply. Besides, there is also the problem of resource constraint. In spite of all these constraints, the researcher feels that a modest, but serious and sincere attempt has been made through out. Inadequacy of time is also another limitation.

### **ANALYSIS OF DATA**

This study requires a fairly large Canvass of data collected from different categories of people – tourists, tourists' hotel operators, local people – who are in one way or other related to tourism. Hence the study is based on a survey conducted among these groups. Using 3 sets of interview schedules, primary data were collected from the tourists, hotel operators and local people making use of convenience sampling technique. Data were collected from 30 tourists, 5 hotels and 15 local people. The collected data were analysed and have been presented separately.

The most important problems data the offshoot of the growth of tourism at Kochi are degradation of environmental values and increasing immoral activities. Respondents also feel that there has been an increasing the environmental problems. However, the other problems like spread of disease like AIDS and drug trafficking have not affected Kochi to a great extend as opined by the local respondents. Respondents also do not feel the harsh effects of urbanization and the resultant increased cost of living.

**TABLE NO. 1**  
**RESPONDENT OPINION ABOUT THE PROBLEMS THAT HAVE DEVELOPED AND**  
**ARE LIKELY TO DEVELOP AT KOCHI**

	R <sub>1</sub> 8		R <sub>2</sub> 7		R <sub>3</sub> 6		R <sub>4</sub> 5		R <sub>3</sub> 4		R <sub>6</sub> 3		R <sub>7</sub> 2		R <sub>8</sub> 1		CI	Overall ranks
Degradation of environmental values	4	32	2	14	2	12	1	5	1	4	-	-	-	-	-	-	67	1
Increase in immoral activities	2	16	3	21	1	6	2	10	2	8	-	-	-	-	-	-	61	2
Environmental problems	1	8	2	14	3	18	2	10	2	8	-	-	-	-	-	-	58	3
Spread of disease like AIDS	-	-	-	-	-	-	3	15	1	4	2	6	3	6	1	1	32	6
Drug Trafficking	-	-	-	-	-	-	-	-	3	12	1	3	1	2	5	5	22	8
Increase in cost of living	1	8	2	14	1	6	-	-	-	-	4	12	1	2	1	1	43	5
Evil effect of urbanization	-	-	-	-	1	6	-	-	1	4	1	3	5	10	2	2	25	7
Over concentration of resorts	2	16	1	7	2	12	2	10	-	-	2	6	-	-	1	1	52	4

**Source: Primary Data**

**TABLE NO. 2 RANKING BY MALE RESPONDENTS**

Problems	R <sub>8</sub>	R <sub>7</sub>	R <sub>6</sub>	R <sub>5</sub>	R <sub>4</sub>	R <sub>3</sub>	R <sub>2</sub>	R <sub>1</sub>	Rank	CI
Degradation of environmental values	3 24	1 7	2 12	1 5	1 4	- -	- -	- -	1	52
Increase in immoral activities	1 8	2 14	1 6	2 10	- -	1 3	1 2		3	43
Environmental Problems	4 32	1 7	- -	1 5	- -	- -	2 4		2	48

Spread of disease like AIDS	-	-	1 6	-	3 12	3 9		1 1	6	28
Drug trafficking	-	-	-	-	4 16	2 6		2 2	8	24
Increase in cost of living	-	1 7	2 12			2 6	1 2	2 2	5	29
Migration of tourist to Kochi		2 14		2 10			1 2	3 1	7	27
Over concentration of hotels		1 7	2 12	2 10			3 6		4	35

Source: Primary Data

**TABLE 3 RANKING BY FEMALE RESPONDENTS**

Problems	R <sub>8</sub>	R <sub>7</sub>	R <sub>6</sub>	R <sub>5</sub>	R <sub>4</sub>	R <sub>3</sub>	R <sub>2</sub>	R <sub>1</sub>	Rank	CI
Degradation of environmental values	2 16	- -	- -	- -	- -	- -	- -	- -	1	16
Increase in immoral activities	- -	2 14	- -	- -	- -	- -	- -	- -	2	14
Environmental Problems	-	-	1 6	- -	1 4	- -	- -	- -	3.5	10
Spread of disease like AIDS	-	-	1 6	- -	- -	1 3	- -	- -	5	9
Drug trafficking	-	-	-	2 10	- -	- -	- -	- -	3.5	10
Increase in cost of living	-	-	-	-	1 4	- -	1 2	- -	6	6
Migration of tourist to Kochi	- -	- -	- -	- -	- -	- -	- -	- -	8	2

Over concentration of hotels	-	-	-	-	-	1 3	1 2	-
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**TABLE 4 - COMPOSITE INDEX**

Sl.No.	Problems	Components indices	
		Male	Female
1	Degradation of environmental values	52	16
2	Increase in immoral activities	43	14
3	Environmental problems	48	10
4	Spread like disease like AIDS	28	9
5	Drug Tafficking	24	10
6	Increase in cost of living	29	6
7	Migration of tourist to Kochi	27	2
8	Over concentration of hotels	35	5

Sl.No.	Problems	Components indices	
		Male	Female
1	Degradation of environmental values	52	16
2	Increase in immoral activities	43	14
3	Environmental problems	48	10
4	Spread like disease like AIDS	28	9
5	Drug Tafficking	24	10
6	Increase in cost of living	29	6
7	Migration of tourist to Kochi	27	2
8	Over concentration of hotels	35	5

Rank correlation between male and female respondents = 0.5714

There is moderate positive correlation male and female respondents regarding their views on problems brought in by tourism to Kochi.

#### TESTING OF HYPOTHESIS:

**H<sub>0</sub>:** The rank correlation between male & female respondents regarding their views on the problems brought in by tourism to Fort Kochi is statistically insignificant.

**TABLE 5 RESULTS OF RANK CORRELATION TEST  
(BASED ON THE VALUES OT TABLES 2, 3 AND 4)**

Level of significance	5%
N	8
Computed test Static Value( $R_s$ )	0.5714
Table Value	0.7143
Decision: $H_0$ is accepted since computed value is less than the table value. So the correlation between male and female respondents is insignificant.	

## FINDINGS

Awareness of the concept of medial tourism is becoming widespread. Tourists come to various destinations in Kerala with a view to undergoing various forms of Ayurvedic Treatment required for their ailments. The Hotels have Ayurvedic clinics and attached to them with stay in facilities. In order to capture the attention and interest of prospective tourists, Hotels offer a package which includes the facilities for Ayurvedic treatment. This has actually popularized medical tourism a lot. Tourists who have availed of such facilities have expressed a reasonable degree of satisfaction with the same. The Hotels however face the challenge competing with unauthorized clinics which mushroom in Kochi and draw away some of their tourists. These clandestine clinics are likely to bring disrepute to the tourist destinations like Kochi. The local people generally welcome the inflow of tourists on account of the various advantages. However the growth of tourism also brings in its train a lot of evil effects too. Yet, in spite of this, concepts like Medical tourism seem to add to the growing popularity of this pristine destination.

## RECOMMENDATIONS AND SUGGESTIONS

This study on the impact of medical tourism in Kochi has been instrumental in bringing out the following suggestions. These are the opinions collected and synthesized from the various respondents who constituted the sample of the study.

1. Wide spread publicity has to be given to popularize the concept of medical tourism. The services of media need to be fully utilized in order to draw international.
2. Government should, promote Ayurvedic clinics as a part of publicity campaign for medical tourism of its own. Providing quality treatment at subsidized cost would attract more tourists to this splendid destination.
3. The idea of herbal tourism need to be promoted especially in the form of a package with local food and cuisine. Not alternative continental methods should be offered.
4. Strict Registration norms should be ensured that the practitioners and staff are duly qualified and registered. License prerequisites should include emphasis on quality of doctors as well as the basic infrastructure.
5. A District level Monitoring Committee consisting of Ayurvedic experts and authorities representing the Tourism Department should make periodical inspection of the operating clinics.



6. Stringent Penal action need to be taken against unauthorized clinics which ruin the reputation of this pristine tourist centre.
7. The clinics will be required to submit periodical statements showing the details of tourists who availed the treatment facilities and the revenue earned.
8. Ayurveda coupled with tourism can attract unprecedented inflow to tourists to Kochi. Every effort should be taken to promote this branch of tourism which will bring far reaching positive impacts on our economy. We need to recognize that Ayurveda is not a mere 'massage' but is actually a message – message of life.

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