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VISION

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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Avinashilingam
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Deemed University under Category 'A' by MHRD
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DEPARTMENT OF ECONOMICS

UGC Sponsored
Two-Day National Conference on

"INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT"

Date: 10th & 11th January 2018

NATIONAL CONFERENCE ON

INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT

10-11 JANUARY 2018

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

MESSAGE

Dear My Friends,

At the outset, I thank the Organizers and the Avinashilingam University for givingme 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 sharingand exchanging various academic and field experiences for the betterment of the Scientific and Social Community, towards enhancement of the subject knowledge andgaining a wide range of field exposure as well.

Hope this will also help the students and research scholars to find new strategies to extend theirboundaries of knowledge insocialscience which will surely facilitate for aninteraction 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 advancingcivilization and building our quality of life!Today, the World is undergoing vast changes with the technologicalrevolution, population explosion, climate change, environmental concerns and many more.

Engineering is all about our community service, development andimprovement in planning, design, construction and operation of facilities essentialto 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, communityplanning, 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, thereare increasing demands on the world's resources and the capacity to assimilatethe wastes as well. We are tasked with accommodating theneeds of increasing numbers of people and improving their living conditions. Thus, we are at the forefront of making decisions that will have long-term implicationsfor our Mother Planet.

Given the finite capacity of the earth, it is recognized thatwe must be trained to make decisions in such a way that ourenvironment 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 oroperating the Systems that do not compromise the Natural Environment. Further, the Sustainable Society is the one that meets the needs of the present, withoutsacrificing the ability of Future generations to meet their own needs.

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

Problems related to development and planning affect Rural and Urbanareas which prevail in all the Regions of the World. Accelerated urbanizationhas resulted in deterioration of the environment and loss of quality of life tocertain extent. Urban development can also aggravate problems faced by RuralAreas, such as Forests, Mountain Regions and Coastal Areas, among manyothers.

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

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

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

More focus has to be made towards Green Engineering with specialreference to Material Management, Waste reduction, Pollution prevention andProduction enhancement by way of employing innovative initiatives. Other thrustareas such as Sustainable & Resilient Transportation System, RenewableEnergy Supply, Urban Underground Infrastructure Development, GreenInfrastructure Design, Energy-Water-Environment Nexus, etc. should also befocused with more and more research initiatives.

At present, Frugal Engineering or Frugal Innovation gains a significantmomentum in innovating and generating significantly cost-effective products byreducing 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 inorder to ensure that planning and development can meet our present needswithout compromising the ability of future generations.

Hope this National Conference will pave a new way to bring out the widerange of intellectual interests and talents from the future Economic Experts, encompassing the emerging

socio economic advancements. Hope thisEvent 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. Letus 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 BestWishes 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,
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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.

THANKS

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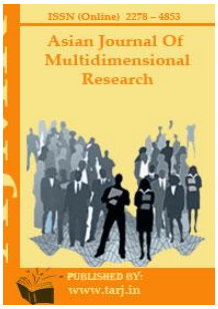

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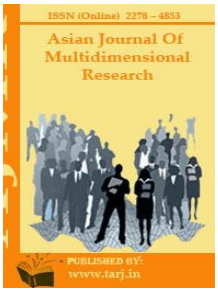

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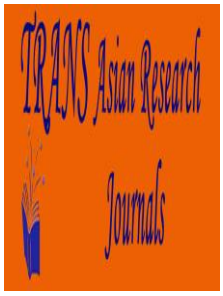

A STUDY ON FINANCIAL DECISION MAKING AND MANAGEMENT AMONG SHG WOMEN IN KERALA

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ABSTRACT

Self Help Groups in India are found to be the vehicles which enable women involved in it to make a safe drive to reach the destination of empowerment. Women in Kerala, while establishing a firm foothold in literacy and social status, seem yet to identify their role and participation in financial descion making and management. Empirical evidence shows that women contribute significantly to the running of family mostly in the form of unpaid work and skills. Hence the present study is an attempt to understand how far financial Decision making and management foster Economic Empowerment among SHG Women. The study surveyed 100 SHG members who involve themselves in income generating ventures in the highest literate district of Kerala, Kottayam. Women are found to make fewer sacrifices and are prone to spend more. It is found that women are found to pawn, sell and lose their own assets rather than engaging in equipping themselves with assets.Thus the SHGs apart from inculcating self employability, encouraging saving habits and skill developments among women should also nurture their women to become financially independent, financially intelligent and financially empowered.

KEYWORDS: *SHG Women, Financial Decision making and management.*

INTRODUCTION

In recent years the concept of Financial Literacy has become an important issue of discussion. I t is one of the vital challenges faced by all developing and developed countries as it is a part and parcel of sustainable development. Being financially illiterate is one among the major obstacles in the process of Sustainable development. Financial literacy is helpful for people of all ages, old and young, men and women, household and working. It has been often discussed and agreed that one of the critical deprivations in acquiring wealth by poor household is the absence or dearth of the apt and appropriate type of financial services and the biggest deprivation is the lack of financial knowledge. (Garima 2017).

Having financial knowledge is the key element for making sound financial decsions.Financial literacy helps to grow and manage finances in a proper way. The often neglected , require a range of financial services such as opportunities to earn, safeguard the hard earned income credit to support them in maintaining at least bare minimum levels of sustenance throughout the year, risk mitigating services like insurance and transferring their earnings to their near and dear who may be staying at other places.

Women being a major part of the economy also need to be financially empowered. The importance of financial literacy can never be neglected as it not only contributes to the wellbeing of women but also assist them to become economically empowered. It is at this juncture, that Self Help Groups (SHGs) play an important role. They help women to be financially literate as well as increase empowerment of its members.

LITERATURE REVIEW

Lussardi and Michelle (2008) finds that low level of financial literacy have greater impact on women than that of men. The study reveals that women tend to be more apprehensive about future but does not have the courage as to how to secure it. Women face more monetary challenge than men while making financial decision. Further, women find it more difficult to manage their own money and be financially independent.

Sekeita (2013) in the study 'Role of financial literacy on the profitability of women owned enterprises in Kitui Town, Kenya' determine the role of financial literacy on the profitability of women owned enterprises. The specific objectives of the study were to establish role of budgeting, cash management, saving, record keeping on the profitability of women run enterprises. The study recommends that women should be trained in financial related programmes to enhance their capacities.

Rajeswari (2016) in her study on 'An overview of financial literacy among women-need and practice' emphasize that there is need to be better understanding of women's financial rights and responsibilities and their opportunities for income generation and the related risks and costs which are involved. Women should be made to understand how to appropriate financial products and services with the financial skills to manage the resources.

Akshita (2016) in her study on the 'Assessment of Financial Literacy among Working Indian Women' reveals that it is lower level of financial literacy which is the greatest concern for the independency of women whether working or non-working. A survey was conducted where questionnaire was prepared and distributed among the working women in the state of Rajasthan. Financial Literacy level of working women was assessed on the basis of financial knowledge, attitude and behaviour relating to their personal finances. The findings of the survey reveal that

the general awareness about financial planning tools and techniques even in the globalised 21st century remains poor.

Lussardi (2017) in the study 'Financial Capability and Financial Literacy among Working Women: New Insights' shows working women have very low financial literacy, In 2015, less than one-third demonstrated a basic level of financial literacy, a percentage significantly lower than that of working men and troubling in that such literacy is an important predictor of financial behaviours related to debt, financial fragility, and retirement planning.

SIGNIFICANCE OF THE STUDY

Self Help Groups in India are found to be the vehicles which enable women involved in it to make a safe drive to reach the destination of empowerment. Women in Kerala, while establishing a firm foothold in literacy and social status, seem yet to identify their role and participation in financial decision making and management. Empirical evidence shows that women contribute significantly to the running of family mostly in the form of unpaid work and skill.

OBJECTIVES OF THE STUDY

1. To examine the relationship between financial decision making and type of investments

2. To understand the financial management of SHG Women

3. To examine the financial empowerment of SHG women

HYPOTHESIS

H_0: There is no significant relationship between the type of investment and financial decision making

METHODOLOGY

The study was undertaken among 100 SHG (Kudumbashree) members in Kottayam. Purposive sampling method was used to carry out the study concerned .The district Kottayam was chosen as the study area, since it ranked first, in terms of literacy among the districts of Kerala (Kerala census report 2011). Structured questionnaires and unstructured personal interviews were conducted among the respondents to gather primary data. Information from books and journals served as secondary data.

RESULTS AND DISCUSSION

The results pertaining to the study are discussed as follows –

TABLE 1
AGE AND MARITAL STATUS

	Marital status			Total
	Married	Unmarried	Separated/widowed	
Age(yrs) 20-30	3	0	0	03
31-40	57	1	0	58
41-50	14	0	12	26
51-60	0	0	13	13
Total	74	1	25	100

Source: Primary data.

Table 1 exhibit a cross tabulation of age of the respondents and marital status. It is observed that 57 percent of the respondents who belong to the married category fall in the age group 31-40yrs, 13 percent women who belong to the separated/widowed category fall in the age group 51-60 yrs.However only 1 percent women who belong to the unmarried category fall in the age group 31-40 yrs. The data reveals that SHGs along with the married women encourages the participation and involvement of separated/widowed women who remain financially helpless in the society.

TABLE 2
MONTHLY INCOME AND TYPE OF SHG ENTERPRISE

	Type of enterprise				
	Hotels/ Snack bars	Tailoring unit	Provision store	Pickle making	Total
Monthly Income(yrs) 0-5000	1	5	0	21	27
5001-10000	11	20	18	6	55
10001-15000	0	0	0	13	13
15001-20000	0	0	0	5	5
20001&above	0	0	0	0	0
Total	12	25	18	45	100

Source: Primary data

Table 2 show that 11 percent of the respondents involving themselves within the hotel enterprise,20 percent of the respondents working within the tailoring unit, 18 percent working within provision store and 6 percent working within pickle making unit belongs to the income category of Rs 5001-10000. The data reveals that majority of the respondents' pay scale fall in the income category of Rs 5000-10000.It shows that the respondents engaged in such income generating ventures lack sufficient income. The data indicates that SHGs having established in the country for more than a period of 20 years, should now focus on making its members not just to have the bare minimum to sustain their day to day affairs but also help them to make a decent and comfortable lifestyle.

TABLE 3
AGE AND FINANCIAL KNOWLEDGE

	Financial knowledge				
	Poor	Average	Above average	Excellent	Total
Age(yrs) 20-30	7	0	0	0	7
31-40	48	6	0	0	54
41-50	0	13	13	0	26
51-60	0	0	13	0	13
Total	55	19	26	0	100

Source: Primary data

Table 3 displays 48 percent of the respondents belonging within the age group 31-40yrs have poor financial knowledge. It is also seen that no respondent scores excellent financial

knowledge. This reveals that the SHGs yet to provide financial literacy awareness and personal counselling to the respondents apart from capacity building and skill development mandatory training programmes

TABLE 4
SAVING AMOUNT AND NATURE OF OWNERSHIP OF ACCOUNT

Saving amount(Rs)	Nature of account holding			
	Own	Joint(Partner and self)	Joint(Siblings and self)	Total
0-5000	40	43	7	90
5001-10000	4	3	1	8
10001-15000	1	1	0	2
Total	45	47	8	100

Source: Primary data

Table 4 exhibits saving amount and nature of ownership of bank account. Around 43 percent of the respondents have a joint account with their spouse which falls within a saving amount of Rs 5000. Only 2 percent of the respondents have their own account which falls within a saving amount of Rs 10,000-15000. Further two percent joint account is also shown under the saving amount Rs 10001-15000. It is interpreted that even after joining the SHGs men take an upper hand in financial matters and tend to remit even the money from the respondents account. This is found to hinder the financial independence of women. **The Chi-square test of independence** has been adapted to test if two categorical variables such as Financial Decision making and Type of Investment are associated.

H_0: There is no significant relationship between the type of investment and financial decision making

Table 5 display Financial Descion making and Type of Investments.

TABLE 5
FINANCIAL DECISION MAKING AND TYPE OF INVESTMENTS -CHI-SQUARE TEST OF INDEPENDENCE

		Financial Decision making				
		Self	Partner	Both	Other family members	Total
Type of investments	Fixed Deposits	7	0	0	0	7
		3	5	0	0	8
	Insurance	0	45	5	0	50
	House/Land	3	8	13	7	31
	Chit funds	0	0	0	7	7
	Shares/bonds	13	58	18	14	100
	Total					

Source: Primary data.

It is found that only 7 percent of respondents invest in Fixed deposits,3 percent of the respondents in insurance and 3 percent of the respondents in chit funds..45 percent of investments are found to be made by the partner in House/land. Participation of both husband and wife in making investments is also limited to 5 percent and 13 percent in terms of Home/land and chit funds.

It is revealed that heavy and major financial decision making in terms of the type of investments are done by the partners of the respondents. Investments in the name and ownership of the respondents are found to be sparse. Lack of participation of husband and wife jointly in making investments decisions indicates lack of equality, lack of cordial atmosphere and freedom of expression in their familial life.

Chi-Square Test

	Value	**df**	**Assymp.Sig(2-sided)**
Pearson Chi-square	236.019[a]	12	.000
Likelihood Ratio	171.489	12	.000
Linear-by-Linear Association	85.020	1	.000
N of Valid Cases	100		

Source: Estimation based on primary data.

Symmetric Measures

		Value	**Approx.sig**
Nominal by Nominal	**Phi**	1.536	.000
	Cramer's V	.887	.000
N of Valid Cases		100	

Source: Estimation based on primary data.

Since the p-value (p=.000) is found to be less than the significance level (p<0.05) the null hypothesis is rejected. I t is found that there is significant association between the two variables, Financial Decision making and Type of Investment.

FINANCIAL MANAGEMENT OF SHG WOMEN

Financial management is where an individual or a family unit performs to budget, save and spend monetary resources overtime taking into account various financial risks and future events. In the present study, financial management was examined in order to understand how women managed their day to day financial affairs at their difficult times. Six statements on financial management are given as follows:

FIGURE- 1
FINANCIAL MANAGEMENT OF SHG WOMEN

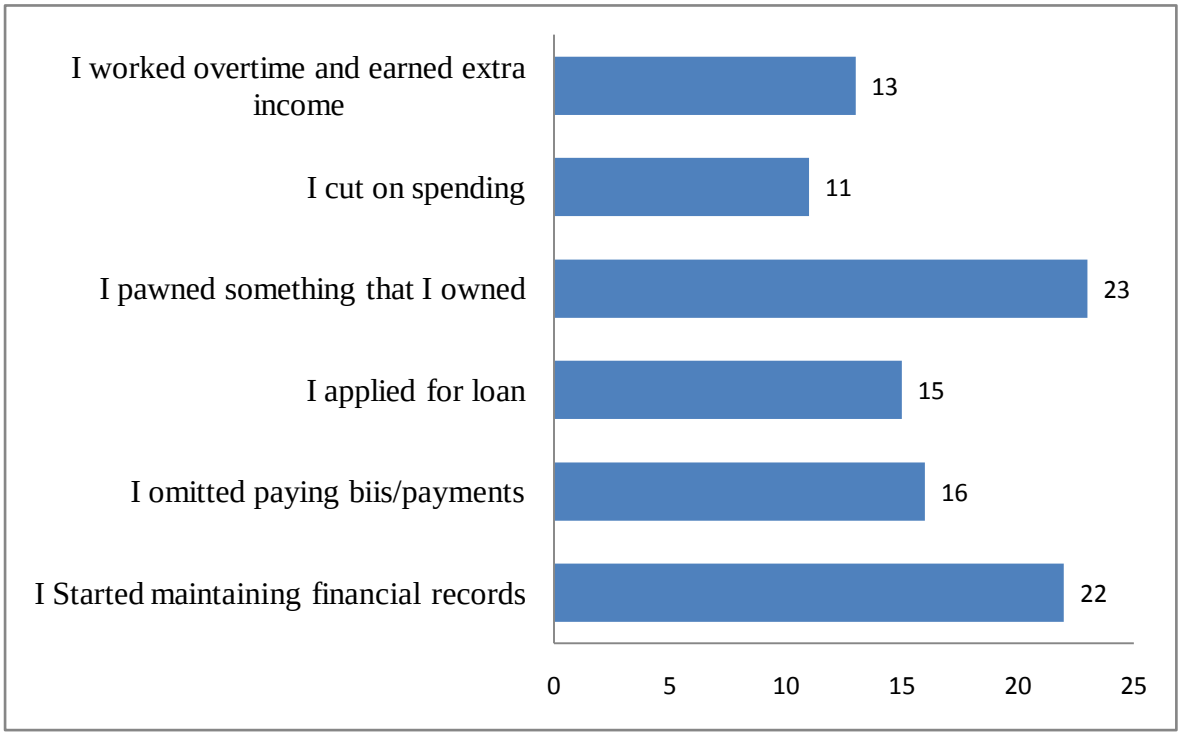
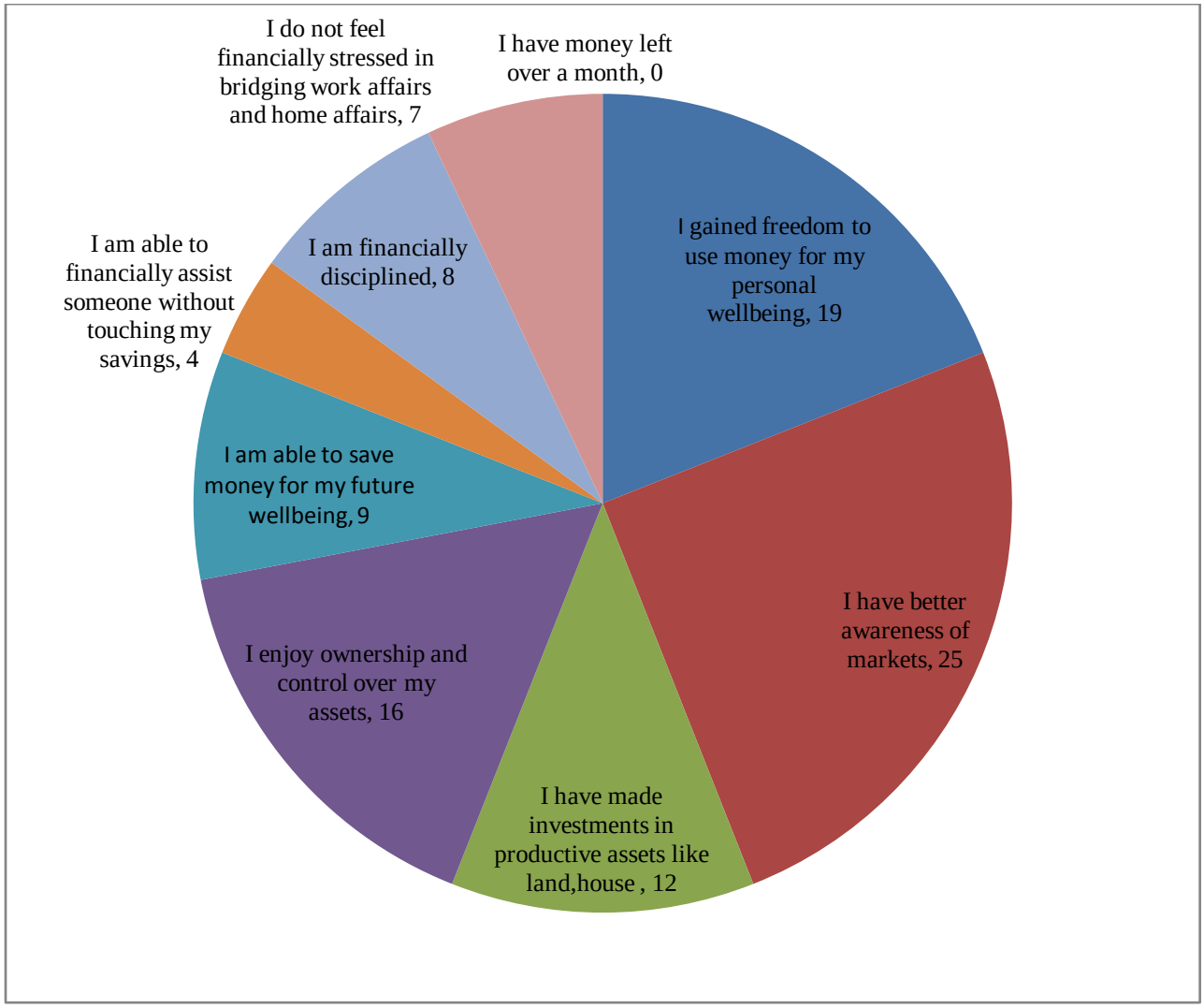


Figure 1 shows that 23 percent women have pawned something that they owned. Though 22 percent of the women have started maintaining financial records, only 11 percent cut on spending when they experienced financial difficulties.16 percent of women have omitted paying bills and other payments and 15 percent applied for loan. It is found that 13 percent of women worked overtime and earned extra income. From the figure it is observed that financial management of the women need to be properly oriented and well taught. Women are found to make fewer sacrifices and are prone to spend more. It is found that women are found to pawn, sell and lose their own assets rather than engaging in equipping themselves with assets.

FINANCIAL EMPOWERMENT OF SHG WOMEN

Financial Empowerment is a new approach to poverty reduction that focuses on improving the financial security of low-income women. Figure 2 exhibits financial empowerment of SHG women.

FIG 2
FINANCIAL EMPOWERMENT OF SHG WOMEN



It is found that 25 percent of the respondents states that they have better awareness of markets after joining SHG.19 percent of the respondents confirms that they have gained freedom to their personal wellbeing.Only16 percent of the respondents enjoy ownership and control over their assets. Only 8 percent respondents agrees that they are financially disciplined and 9 percent of respondents agrees that they are able to save for future wellbeing. It is a harsh reality to understand that no respondent is able to have left over money over a month. The percentage in all the above indicators shows that the SHG women stand at a poor level of financial empowerment.

CONCLUSION

Financial empowerment depends on financial knowledge, financial attitude, financial decision making and proper financial management.Kottayam, being the most literate district in Kerala seems to lack financial literacy in terms of the samples selected for the study. The SHG enterprises at Kottayam are found to serve only the bare minimum facilities for its women members to make living.SHG women are found to have positive thoughts and plans about their

financial goals, wellbeing and future achievements but they don't have the proper drive to decide, manage and invest their hard earned money for a comfortable living. Besides, men in families are most encouraging to make women take up loans and pawn their valuables. But not found so much encouraging making their women participate in the purchase and ownership of assets. Thus the SHGs apart from inculcating self employability, encouraging saving habits and skill developments among women should also nurture their women to become financially independent, financially intelligent and financially empowered.

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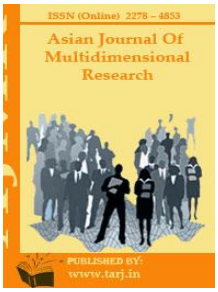

Asian Journal of Multidimensional Research (AJMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL

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A STUDY ON PROBLEMS AND PROSPECTS OF HOME BASED ENTREPRENEURS IN PALLADAM

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ABSTRACT

The small scale sector, world over is playing a vital role in the growth of the national economies. Entrepreneurs are the kingpin of growth process. They are men of vision, drive and talent, who identify opportunities and promptly seize them for exploitation. The study was aimed at measuring the prospects and problems among the sample respondents. The study was conducted in PalladamTaluk by selecting 150 respondents, who are all doing home-based business. Field survey method and interview scheduled were employed to collect the primary information in addition to secondary data. Based on these findings a few suggestions are also made. Over the past five decades, various government policies have been formulated to develop a framework for the revival and development of Cottage, Tiny and modern small-scale industries. Entrepreneurs have strong convictions, self motivation, and they will to grow and prosper tremendously. But in majority of the cases, they start with nothing but entrepreneurial ability and end with positive results. Since, small-scale industry offers multiple benefits to an industrializing economy like India; it has increased the attention of the policy makers to a greater extent. As a result, small-scale industry has been growing impressively and contributing significantly to employment, industrial production and exports.

KEYWORDS: *Entrepreneurs, exploitation, entrepreneurship, discontinuous, materials, phenol,*

INTRODUCTION

Small and Medium Enterprises (SMEs) have been rightly considered as the engine growth in most countries. They enhance balanced regional industrial development and they act as a nursery for entrepreneurship. Industries are consolidating with mega mergers across national boundaries, and the globalization of information and currency markets is making national economies and worldwide industries increasingly and almost instantly interdependent. Understanding and responding to this kind of dramatic discontinuous change is crucial to the success of business and government in the coming years. But something equally important is being lost in the midst of such intense focus on the accelerating pace of change at the start of the new millennium. Over the past five decades, various government policies have been formulated to develop a framework for the revival and development of Cottage, Tiny and modern small-scale industries. With a view of determining the types of industrial units which needed special support, it was considered necessary to develop an appropriate classificatory definition for SSI units under the Industries (Development and Regulation) Act, 1951.

STATEMENT OF THE PROBLEM

Palladam is famous for the growth and development of small-scale industries during the last three decades. Home-based business comprise of food products, handloom sarees, readymade garments, toys, broom sticks, washing and clearing materials, phenol, motormanufacturing units, etc., These industries generate a moderate level of employment opportunities for both skilled and unskilled workers. They also provide indirect employment to stone makers, painters, etc., Most of these units registered with the district industrial centre.

In this context, the researcher felt that it is suitable to study the small-scale industries and problems and prospects of home-based entrepreneurs. Since there are many home-based businesses available in the Palladam, an attempt is being made by the researcher.

OBJECTIVES OF THE STUDY

- To examine the various services and financial assistance provided.
- To study about the problems faced by them.
- To give suggestions to overcome the problems faced by entrepreneurs.

REVIEW OF THE LITERATURE

Bhaskermitler (1973) stated that a small industry has an important role to play in the countries of economic development. The large-scale industry on the contrary, renders an invaluable service in promoting small scale and ancillary industries. One sector can complement the order and through a mutual assistance process of economic growth, create new employment and provide scope for self-employment.

Kabrakamal (1975) stated that it was claimed in official documents that the small industries had shown creditable documents that the small industries had shown creditable performance over the last two decades under the impact of public policies for promotion of small industries. The setting up of a number of promotional agencies and the initiation of a number of protective and promotional policies by Government sold claim a fair amount of credit for the performance of this sector.

Misra.J.N (1975) in his study found that industrialists preferred private money lending than lending by co-operative Banks for meeting their needs because of complicated formalities, Cumbersome procedures and undue delay in Sanctioning of finance. The study also observed that private lending led to higher interest but the borrowers are more satisfied with timely availability of funds rather than high cost of borrowings.

Subhi Reddy and Bhaskara Reddy (1980) stated that in a populous tropical country like India where millions are unemployed, the only hope for future lies in the development of small-scale industries.

Bhattacarya(1980) stated that small industries can utilize traditional skills, exploit local raw materials, create more avenues of employment, bridge the regional industrial imbalances, pave the way for efficient functioning of the major industries and contribute towards boosting exports, really in the hand of planners, small industry is a magic want to transform the face of the country side.

Hawley (1980) conceived risk taking as the distinguishing attribute of the entrepreneur and ranked this as a factor in production on par with land, labour and capital.

Moorthy.G.K (1980) focused his attention on the financing of Small-Scale Industries in the Rayalaseema region of Andhra Pradesh. The study revealed that the government agencies, Financial Institutions and Commercial Banks have played an effective role in augmenting the financial assistance to the small sector industries.

S.S. Khanka (1990), in his book, "Entrepreneurship in Small Scale Industries" has stated that younger age, caste, business background, higher education and business experience are important encouraging the entrepreneurs to start industries.

Anjana Chatterjee (1991) in her article suggests that it will be better to bring all the agencies to deal with small units together every country. This will help in linking the small units as it creates the regional economic Co-operations in a county.

Brahmanandam (1993) states "the small scale sector has made significant contribution to the Indian economy in terms of growth in employment". But, according to the author, it is plagued by many problems, prominent among them being finance. Given the necessary trust, this sector can become a stabilizing factor in our economy. The author says Government action in reserving certain items for exclusive production in the small scale sector has given the necessary fill up to it but these are not enough to sustain growth.

Varambally (1993) conclude in this study that an entrepreneur, before venturing into any business activity, should acquire some experience in simpler line. He should be resourceful enough to deal with bureau crafts and officials, there may by perseverance, hardworking nature, smooth interaction with workers, inclination to fight for the right cause would strengthen their position and fake the business towards success.

HOME-BASED ENTREPRENEURS AND PROFILE OF PALLADAM SMALL-SCALE INDUSTRY

The development of small-scale industries is anintegral part of the overall economic, social and industrial development of a country. They produce a number of products, especially in light engineering, leather, readymade garments, automobile components, textile machinery and components, chemicals, plastics, toys and so on. In a developing economy, it is the small-scale

industry that constitutes the backbone of its economic structure. Its development creates vast employment opportunities for the people, effects decentralization of industries by the creation of industrial estates and make possible a redistribution of economic power and income. The government has given special concession to the small-scale industry sector in the areas such as provision of credit by banks, excise and purchase concessions by the government and so on. Some products have been reserved to be produced only by the small-scale industries as a measure to help the units to thrive.

Since, small-scale industry offers multiple benefits to an industrializing economy like India, it has increased the attention of the policy makers to a greater extent. An exhaustive institutional frame work and wide range of policies and programmes have emerged for the protection and promotion of small-scale industry in India. As a result, small-scale industry has been growing impressively and contributing significantly to employment, industrial production and exports.

ENTREPRENEURS

Entrepreneur is a person who discovers new ideas and business opportunities, brings together funds to establish a business, organizes and manages its operations in order to provide economic goods and services, for the public. Entrepreneurs have strong convictions, self motivation, and they will to grow and prosper tremendously. But in majority of the cases, they start with nothing but entrepreneurial ability and end with positive results.

HOME-BASED BUSINESS

Home based business is the business that would provide entrepreneurs the best of the both worlds, they enjoy being their own boss and at the same time they also give their full effort in their work while taking all the important decisions relating to their work. Though it is quite easy to start a home based business, however, it always requires proper planning, monitoring, and hard working for becoming successful in their business. However, the home based business ideas only help them in planning their activities. It will guide them through their journey, but it's entirely up to their capability and hard work, which will lead them to the success. Business may be very small in size and also have lesser capitals. Hence many have to fight against all the odds.

ANALYSIS AND INTERPRETATION

- **CHI-SQUARE ANALYSIS**

For testing the significance of the difference between observed and expected frequencies under the null hypothesis that the difference is insignificant, Pearson has constructed the statistic.

$$Chisquaretest\chi^2 = \sum \frac{(O-E)^2}{E}$$

O = Observed frequencies

E = Expected frequencies

R= Number of Rows

C= Number of Columns

Degree of freedom = (R-1) (C-1)

THE FOLLOWING HYPOTHESES ARE TESTED IN THIS STUDY:

► there is no significant relationship between the level of satisfaction and personal and socio economic characteristics of respondents. [H_0]

► there is a significant relationship between the level of satisfaction and personal and socio economic characteristics of respondents. [H_1]

AGE AND SATISFACTION LEVEL

Age	Favourable	Unfavourable	Total
Below 30	12	0	12
31-40	70	27	97
41-50	33	8	41
Total	115	35	150

NULL HYPOTHESIS

There is no significant relationship between age and the satisfaction of the respondents.

CALCULATED VALUE	DOF*	TABLE VALUE	HYPOTHESIS

ALTERNATIVE HYPOTHESIS

There is significant relationship between age and the satisfaction of the respondents.

CALCULATED VALUE	DOF*	TABLE VALUE	HYPOTHESIS
0.3915	**2**	**5.99**	**Accepted**

DEGREE OF FREEDOM

As the calculated value is less than the table value we can accept the null hypothesis, i.e. there is **no relation** between age group and satisfaction level.

GENDER AND SATISFACTION LEVEL

Gender	Favourable	Unfavourable	Total
Male	91	18	109
Female	24	17	41
Total	115	35	150

NULL HYPOTHESIS

There is no significant relationship between gender and the satisfaction of the respondents.

ALTERNATIVE HYPOTHESIS

There is significant relationship between gender and the satisfaction of the respondents.

3.92	**1**	**3.84**	**Rejected**

DEGREE OF FREEDOM

As the calculated value is **greater than** the table value, the null hypothesis is rejected, i.e. there is **significantrelation** between gender and satisfaction level.

EDUCATION LEVEL AND SATISFACTION LEVEL

Education Level	**Favourable**	**Unfavourable**	**Total**
Informal	11	4	15
School Level	72	19	91
Graduate	32	6	38
Others	0	6	6
Total	115	35	150

NULL HYPOTHESIS

There is no significant relationship between education level and the satisfaction of the respondents.

ALTERNATIVE HYPOTHESIS

There is significant relationship between education level and the satisfaction of the respondents.

CALCULATED VALUE	**DOF***	**TABLE VALUE**	**HYPOTHESIS**
0.4615	**3**	**7.82**	**Accepted**

DEGREE OF FREEDOM

As the calculated value is less than the table value we can accept the null hypothesis, i.e. there is **no relation** between education level and satisfaction level.

MARITAL STATUS AND SATISFACTION LEVEL

Marital Status	**Favourable**	**Unfavourable**	**Total**
Married	106	35	141
Unmarried	9	0	9
Total	115	35	150

NULL HYPOTHESIS

There is no significant relationship between marital status and the satisfaction of the respondents.

ALTERNATIVE HYPOTHESIS

There is significant relationship between marital status and the satisfaction of the respondents.

CALCULATED VALUE	DOF*	TABLE VALUE	HYPOTHESIS
0.1176	**1**	**3.84**	**Accepted**

DEGREE OF FREEDOM

As the calculated value is less than the table value we can accept the null hypothesis, i.e. there is **no relation** between marital status and satisfaction level.

INCOME OF THE FAMILY AND SATISFACTION LEVEL

Income Of the Family	Favourable	Unfavourable	Total
Less than Rs. 10,000	10	7	17
Rs. 10,000 - Rs. 20,000	55	22	77
Rs. 20,001 - Rs. 30,000	40	6	46
Above Rs. 30,000	10	0	10
Total	115	35	150

NULL HYPOTHESIS

There is no significant relationship between income of the family and the satisfaction of the respondents.

ALTERNATIVE HYPOTHESIS

There is significant relationship between income of the family and the satisfaction of the respondents.

CALCULATED VALUE	DOF*	TABLE VALUE	HYPOTHESIS
0.7109	**3**	**7.82**	**Accepted**

DEGREE OF FREEDOM

As the calculated value is less than the table value. So we can accept the null hypothesis, i.e. there is **no relation** between income of the family and satisfaction level.

SIMPLE RANKING METHOD

PROBLEMS FACED BY ENTREPRENEURS

S.No.	Problems	Avg. Rank	Rank
1.	Financial Problems	2.91	III
2.	Labour Shortage	3.36	II
3.	High wage rate	3.64	I
4.	Lack of technology	2.30	V
5.	High price of Raw materials / Input	2.79	IV
	Total	**15**	

INTERPRETATION

The above table shows that the main problem is high wage rate, and then labour shortage, financial problem, high price of raw materials / input, lack of technology respectively.

RELATIONSHIP BETWEEN GENDER AND THE OVERALL FACTORS RELATING TO PRODUCT

Gender	Very good	Good	Average	Total
Male	39(36%)	50(46%)	20(18%)	109
Female	11(27%)	22(54%)	8(19%)	41
Total	50	72	28	150

INTERPRETATION

The above table clearly depicts that the overall factors relating to product is good. The majority, Female (54%) respondents have the overall impact as good about the factors of the product.

RELATIONSHIP BETWEEN AGE GROUP AND THE OVERALL FACTORS RELATING TO PRODUCT

Age group	Very good	Good	Average	Total
Below 30 years	5(42%)	6(50%)	1(8%)	12
31-40 years	37(38%)	40(41%)	20(21%)	97
41-50 years	13(32%)	20(49%)	8(19%)	41
Total	55	66	29	150

INTERPRETATION

The above table clearly depicts that the overall factors relating to product is good. The majority (50%) respondents in the age group of 18-20 years have the overall impact as good about factors of the product.

FINDINGS

Chi-Square Test:

- There is **no relation** between age group and satisfaction level based on the calculated value with table value.
- There is **significantrelation** between gender and satisfaction level based on the calculated value with table value.
- There is **no relation** between education level and satisfaction level based on the calculated value with table value.
- There is **no relation** between income of the family and satisfaction level based on the calculated value with table value.
- There is **no relation** between marital status and satisfaction level based on the calculated value with table value.

Simple Ranking Method:

- The majority of the respondents expressed that the major problem is high wage rate based on the calculations.

Product Acceptance age-wise and gender-wise

- Majority of the female (54%) respondents felt the overall impact as good about the product.
- Majority (50%) respondents in the age group of 18-20 years felt the overall impact as good about factors of the product.

SUGGESTIONS

- The entrepreneurs should initiate necessary and appropriate steps to create more awareness and make them to start the home-based business yet.
- Government must to help to decrease the interest rate on loan for entrepreneurs to develop their home-based business.
- Some of the respondents are not in SHG. If those respondents are adding to SHG means they can expand their market area, it will tap to improve their average sale.
- It is suggested that majority of the respondents is not aware of incentives and exclusive reservation. Proper steps must be taken to create awareness.
- Government must provide more incentives to these industries to face heavy competition.

CONCLUSION

Based on the objectives taken for study it is concluded that small-scale industries occupy an important place in the economic structure of our country. Government should come forward to introduce many programmes and policies for upliftment of these small-scale industries. Problems

faced by entrepreneurs in running the home-based business and the problems of production, sales and finance were identified through systematic analysis and interpretation of data.

The study will help to improve the home-based business in future through sales and promotion activities, change in marketing method, expansion of business area and proper use of facilities provided by the government. Thus, endeavor of the researcher will be rewarded if the solutions and suggestions are carried out by the entrepreneurs.

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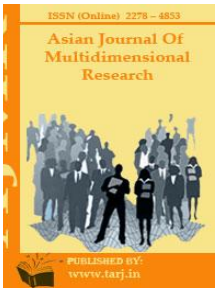

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GOODS AND SERVICES TAX (GST) ON TOURISM SECTOR- AN OVERVIEW

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ABSTRACT

Tourism industry has an important potential considering the rich cultural and historical heritage, variety in ecology, terrains and places of natural beauty which spread across the country. It is marked with a rich potentiality in employment generation and a significant source of foreign exchange for the nation. Tourism industry has emerged as one of the key drivers of growth among the various service sectors. This industry has recently got updated with a new set of Goods and Services Tax (GST) rates; which will be applied on their services based on tariffs and turnover. This paper highlights the objectives of the GST and impact of GST on tourism sector in the present scenario. The paper also explores the various pros and cons of one Nation – One tax reform; GST also acts as a sparkle of hope for the hotel and tourism industry, and keep the GST rate between 10 to 15 %. It might be a sign with its uniformity of tax rates, a better utilization of input credit which in turn benefits the end user in terms of affordability. GST has been one of the most awaited tax reforms of India. Goods and services Tax if touted as one of the biggest reforms of Modern India. Since last few years, Indian tourism industry has been growing at a rapid pace and it has vast potential for generating employment and earning large amount of foreign exchange. So it is imperative to study the growth and development of Indian tourism industry". But GST is going to be an efficient and harmonized destination based tax system ad will remove the problems faced by the sector leading to cost optimization and a free flow of transaction ahead.

KEYWORDS: *GST, Tourism industry, affordability, services.*

INTRODUCTION

Tourism Industry in India is growing and it has vast potential for generating employment and earning large amount of foreign exchange besides giving an overall economic and social development. Tourism in India should be developed in such a way that it accommodates and entertains visitors in a way that is minimally intrusive or destructive to the environment and sustains and supports the native cultures in the locations. It is a multi-dimensional activity and is basically a service industry. It would be necessary that all wings of the central and State government, private sector and voluntary organizations become an active partners in the endeavour to attain sustainable growth in tourism if India is to become a world player in the tourism industry. Tourism represents world's third largest export avenue in terms of global earnings after fuel and chemicals. Modern tourism is closely linked to socio- economic development. Apart from providing employment, income and foreign exchange for the country, the trade in the tourism sector has an economically positive impact on other associated industries such as food manufacturing services, construction, agriculture, handicrafts and so on.

Goods and services Tax (GST) is defined as the giant indirect tax structure mainly designed to support and enhance the economic growth of a country. GST has been one of the most awaited tax reforms of India. Goods and services Tax if touted as one of the biggest reforms of Modern India. GST has got some sectors of the Indian Economy delighted, while some are disappointed; while the rest are a bit confused about it. The Indian tourism sector is emerging as one of the biggest sectors among the various service sectors. It contributes 7.5% to the GDP and is the third largest foreign exchange earner for the country. The Indian tourism industry holds a remarkable share of 6.5% in the global market.

PURPOSE OF THE STUDY

The GST regime is a half hearted attempt to rationalize indirect tax structure. More than 150 countries have implemented GST. So GST will simplify the existing indirect tax system and will help to remove the inefficiencies created by the current heterogeneous taxation system only if there is a clear consensus over the issues. The present study focuses on the objective of GST in general and its impact on tourism sector and it also assess the pros and cons of implementing this regime.

OBJECTIVES

The objective of GST is to establish a simple tax structure for enhancing ease of doing business in India which will bring a positive economic impact.

SUB OBJECTIVE

- To explore the impact and the pros and cons of the Implementation of GST on tourism sector
- To study the trend of foreign tourists arrivals in India.

METHODOLOGY

The present paper is primarily based on secondary data, which have been collected from various sources. These sources are including published resources as well as government official websites. The study is focused during the years of 2014 to 2017(September). The current and previous publication of Ministry of Tourism, Government of India is also used mainly for the data collection.

BACKGROUND LITERATURE

Literature review cements the frame work and conceptual understanding of the topic. The literature review of the present paper is as following:

A report on "Adventure tourism market study in India" published by Ministry of tourism (2016) depicted that "Tourism remains one of the largest employers' accounting for 9% of global GDP and accounts for one in every 11 jobs. Adventure tourism was a niche tourism activity involving exploration or travel to remote area, where the traveler should expect the unexpected. Adventure tourism had grown exponentially worldwide over the past few years tourists explore new destinations looking for rare, incomparable experiences".

Vethirajan C and Nagavalli S in their research paper title "Trends and Growth of tourism industry" (2014) finds out that "Tourism industry has emerged as an important instrument in the economic development of Indian economy, particularly in remote backward rural areas. Due to its strong background and forward linkages it generates employment in different profiles and thus increases living standard of people who are directly or indirectly linked with this economically profitable activity".

Kaur, Mandeep and Sharma, Nitasha in their research paper title "Growth and development of Indian tourism Industry" (2011) had written that "the importance of tourism to economic development had been recognized widely due to its contribution to the balance of payments, GDP and employment. Since last few years, Indian tourism industry has been growing at a rapid pace and it has vast potential for generating employment and earning large amount of foreign exchange. So it is imperative to study the growth and development of Indian tourism industry".

Goods and service Tax regime has some impacts on tourism industry

The Indian tourism industry is witnessing many reforms with the implementation of GST.

1. Unified Tax rate:-Under earlier taxation system multiple taxes like VAT, luxury tax and service tax wee applicable to this industry. With the implementation of GST, all the taxes will be subsumed into one tax. This will help both the recipient and supplier of services to maintain their actual tax liability simplified manner.
2. Availability of input tax credit:-The process of adjustment of taxes to be paid on inputs against the taxes paid on output was very cumbersome under the earlier taxation regime. But the GST made it easier to claim and avail input tax credit (ITC) and will get full ITC on their inputs.
3. Hotel industry: - Hotel industry is one of the main key factors having a direct impact on the tourism industry. Under the earlier taxation system, the effective rate of tax applicable on the hotel where the room tariff exceeding INR 1,000 was 9% (After the abatement of 40%). Also, the value Added Tax (ranging from 12 percent to 14.5 percent) and luxury tax, would apply on this. While after the implementation of new tax; there is differential tax rate system to the hotel industry on the basis of room tariffs. Hotels having rooms tariff up to Rs. 2000 will not be required to pay any amount of tax while the hotels with room rental exceeding Rs. 2000 but up to 7500 are required to pay 18% tax further , hotels with room rental above 7500 are required to pay 28% tax.
4. Restaurants: - Under the earlier taxation regime an effective rate of 6% was levied on foods and beverages apart from VAT of 12 percent. Under the current system, Non AC- restaurants

will be charged with the tax rate of 12% while a rate of 18% and 28% will be levied on AC restaurants and 5 starts rated restaurants respectively.

5. Increased technological requirement: - Goods and service tax regime is a completely technologically driven system. The process of GST from obtaining the registration to the filing of returns is to be facilitated electronically thus the need of technological advancement is an inseparable matter. Small business entities that are not fully equipped with sound technology system are finding more difficult to adjust to this new regime.
6. Increased cost:- Goods and service tax regime is a new system of taxation which makes every business entity irrespective of their size needs professional help which in turn is adding to their cost.

The Pros of GST

1. Administrative ease: GST will abolish several other taxes; which leads to a reduction in the procedural steps and more chances to streamline the taxation process.
2. Clarity for consumers: Under GST regime customers can point out a single charge on their bill and it would give them a clear picture of the tax they are paying.
3. Improved quality of service: - with just one tax to compute, the checking out process at hotels and restaurants will now become easier.
4. Availability of input tax: Before GST, the tax paid on inputs could not be adjusted against output without any complications. However, this will become easier in the GST regime.

The Cons of GST

1. Increased technological Burden When the service tax was introduced; there were a lot of confusing. But GST has very clear guidelines on how each industry needs to manage their and returns to become technologically adept, increasing the technological burden and cost for compliance.
2. Increased cost:- Businesses will look to recover the additional cost of technology and new systems form their customer, which might in some instances lead to a higher tariffs.
3. As India becomes an even bigger player in the global tourism industry, but it still loses out on the back packer crowd die to the high rates.

The tourism industry is expected to grow to US280.5 billion dollars by 2016 and initial changes after the GST implementation are unlikely to impede this growth. However, it remains to be seen whether the cons out weigh the pros for this sector or vice versa.

Foreign Tourist arrivals in India

Foreign tourists have been coming to India into a large quantity from the last few decades. The recent measure of providing visa on arrival (VOA) has helped in encouraging foreign tourists in India. The table below shows the growth of foreign the total contribution of tourists' arrivals during the four years. The total contribution of tourism industry in GDP of India is also set to rise above 7.5% which is very impressive and mutually beneficial.

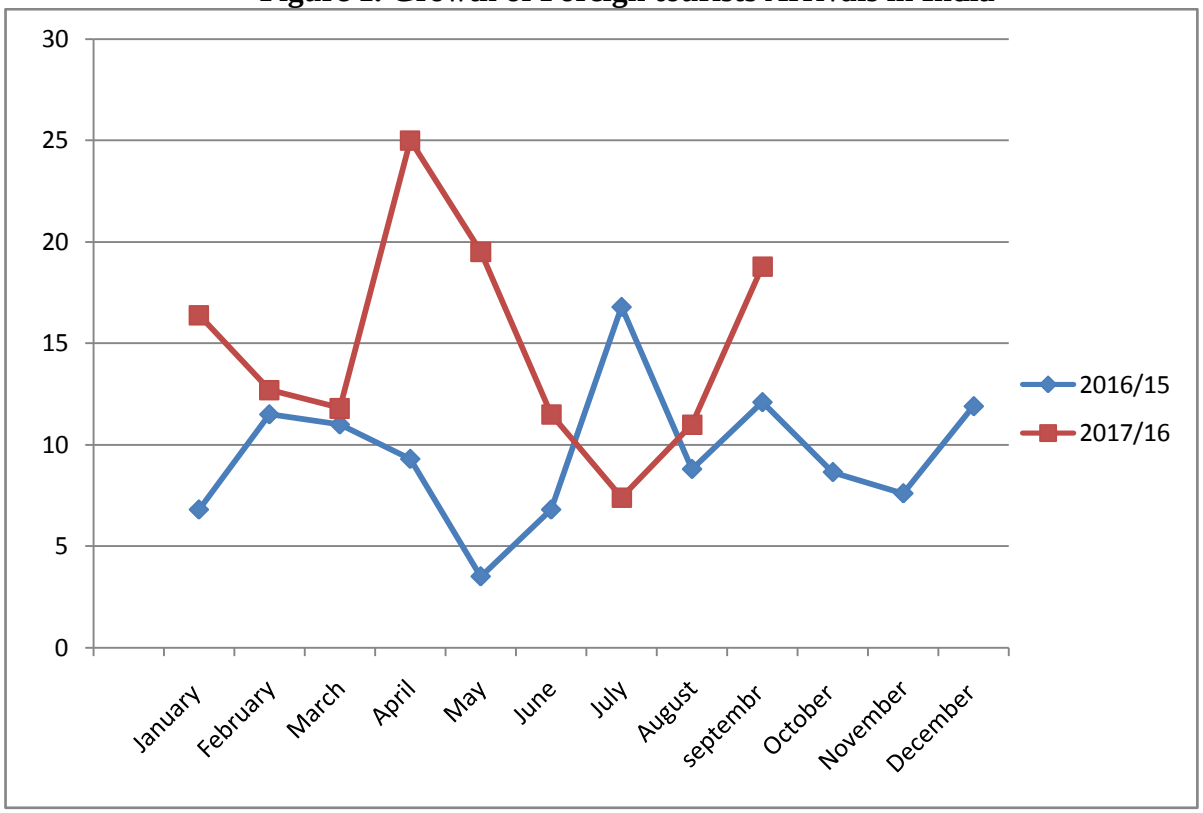
Table 1. Growth of Foreign tourists Arrivals in India (per Month)

Month	Growth rate of arrivals (in percentage)			
	2014/13	2015/14	2016/15	2017/16
January	5.2 %	4.4 %	6.8 %	16.4 %

February	9.7 %	0.7 %	11.5 %	12.7 %
March	8.0 %	5.6 %	11.0 %	11.8 %
April	18.8 %	1.2 %	9.3 %	25.0 %
May	11.4 %	9.6 %	3.5 %	19.5 %
June	11.3 %	2.1 %	6.8 %	22.5 %
July	12.3 %	10.5 %	16.8 %	**7.4%**
August	18.4 %	4.1 %	8.8 %	**11.0%**
September	12.3 %	6.6 %	12.1%	**18.8%**
October	11.8 %	2.2 %	8.65 %	
November	4.3 %	6.6 %	7.6 %	
December	7.7 %	3.1%	11.9 %	
Total	10.2 %	4.5 %	9.75 %	(Jan-Sept) 15.5%

Source: Indian Tourism statistics 2017

Figure 1. Growth of Foreign tourists Arrivals in India



Source: secondary Data

The table and figure above depicts the growth of foreign tourist arrivals. The growth rate in foreign tourist arrivals in June, 2017 over June, 2016 is 22.5% compared to 6.8 % in June, 2016 over June 2015. But the growth rate of FTAs in July, 2017 over July 2016 is 7.4% compared to 16.8% in July, 2016 over July, 2015. Considering the growth rate of August 2017 over 2016 is 11.0% compared to 8.8 in August, 2016 over August 2015. We have seen the growth rate in September, 2017 over September, 2016 is 18.8% compared to 12.1% in September, 2016 over September, 2015.

FINDINGS AND CONCLUSION

The GST is a mixed bag of better and easier rules and regulations and increased and compliances. Under the earlier taxation system there was an average rate of growth among the foreign tourists' arrivals. But the tourism industry in India got updated with a new set of goods and service Tax (GST) rates that be rolled out from July 1st 2017. The initial month of 2017 there was some swings in the growth rates; but in the month of July 2017 there was only 7.4percent of growth compared to 16.8 percent in July 2016. This shows some downswing in the growth of tourist due to the implementation of GST. But in the month of September 2017 there was only 18.8 percent of growth compared to 12.1 percent in 2016. This shows a development in the growth of foreign tourists ahead.

CONCLUSION

Tourism has taken a shape of an industry which is growing and expanding from a very rapid rate all over the world. Tourism sector is impacted both positively and negatively under the GST regime. It has been met with an equal measure of praise and criticism, With the implementation of Goods and service Tax promises to add a significant edge to the economy, by reducing Costs for customers, integrating taxes, and reducing business transaction costs, it will also increase costs for businesses as well the burden of compliance. Under this system, the consumer pays the final tax but an efficient input tax credit system ensures that there is no cascading of taxes - tax on tax paid on inputs that go into manufacture of goods. The government should make an attempt to insulate the poor population of India against the likely inflation due to the implementation of GST. High GST rates on hospitality may prove to be detrimental for the sector. The high incidence of taxes may make India less competitive which it comes to tourism as international tourists may skip the destination. But GST is going to be an efficient and harmonized destination based tax system ad will remove the problems faced by the sector leading to cost optimization and a free flow of transaction ahead.

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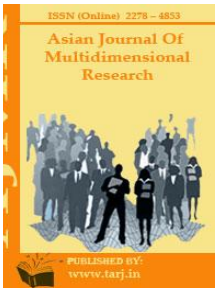

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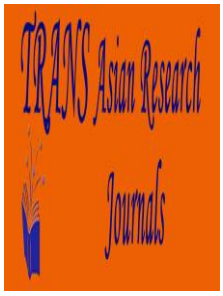

OPPORTUNITIES AND PROSPECTS FOR THE RUBBER PRODUCT DISTRIBUTORS – AN EMPIRICAL STUDY

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ABSTRACT

The rubber plantation sector in India produces over 630 hundred thousand tonnes of natural rubber and there is a projected production of more than one million tonnes in near future. This has helped in the radical and rapid growth of the Indian rubber industry. This prospect of growth is further enhanced by a boom in the vehicle industry, improved living standard of the people and rapid overall industrialization. The per capita consumption of rubber in India is only 800 grams compared to 12 to 14 kilos in Japan, USA and Europe. So far as consumption of rubber product is concerned, India is far from attaining saturation level. This is another factor leading to tremendous growth prospects of the industry in the year to come. In this paper an attempt has been made to identify the respondent's opinion on opportunities for future prospects of distributors that leads to the growth of rubber industry.

KEYWORDS: *Rubber, Opportunities, Growth, Prospects, Industrial rubber products.*

INTRODUCTION

The establishment of the first rubber products manufacturing unit was 1921, the Indian rubber products manufacturing industry has undergone remarkable growth and expansion, particularly during the post-independence era. It has achieved overall development by increasing its size, spatial distribution, technological sophistication and more prominently the wide range of products manufactured. Besides its self-sufficiency by catering to the entire domestic demand, the industry has broken new barriers on the export front as well. India is the third largest producer: fourth largest consumer of natural rubber and fifth largest consumer of natural and synthetic rubber together in the world. Besides, India is the world's largest manufacturer of reclaim rubber.

In this paper an attempt has been made to identify the respondent's opinion on scope/opportunities for future prospects of distributors that leads to the growth of rubber industry by the selected sample respondents of the study area. In order to achieve this, a field survey method was employed to collect the first hand information from the four hundred and fifty respondents.

OBJECTIVES

- To identify the opportunities of the rubber products that leads to the growth of rubber industry.
- To analyze the impact of growth and opportunities of rubber products distributors.

Hypothesis of the Study H01: Opportunities and growth of the rubber products distributors strongly influence the growth of rubber industry.

SAMPLE DESIGN

The respondents were selected by using probability sampling method. Stratified Random Sampling technique has been followed to carry out the study. In this study the sampling unit has been decided as distributors of rubber products in Madurai District. The Madurai District consists of seven taluks. The respondents were chosen from all the seven taluks at the rate of 50 each. The present study has used Mean, Standard deviation, Factor Analysis and Structural Equation Model (SEM) - Amos (Analysis of Moment Structures) (IBM version 20.0) is used which is an easy-to-use program for visual SEM.

ANALYSIS AND INTERPRETATION

Distributors opinion on the scope for distribution function involves twelve variables such as increase the consumption of rubber products, increase the use of non renewable resources, adverse cause and impact on the environment, development of recycling operations of waste rubber, increase the public awareness for using rubber products, considerable demand for industrial rubber products, development of road and automobile industries, enhanced development of road and automobile industries, development of complimentary products, wide spread usage of rubber products, increased variety of end products from rubber, aid to attract foreign investment. Analysis of the distributor's opinion on these variables for the scope of distributors function is made by mean score and standard deviation.

TABLE - 1
RESULTS OF MEAN SCORE VALUE ON DISTRIBUTOR'S OPINION ON THE SCOPE FOR DISTRIBUTION FUNCTION

Opportunities	Mean	Std. Deviation
Increase the consumption of rubber products	4.08	.566
Increase the use of non-renewable resources	3.81	.756
Adverse cause and impact on the environment	3.76	.824
Development of recycling operations of waste rubber	4.15	.723
Increase the public awareness for using rubber products	4.13	.930
Considerable demand for industrial rubber products	3.99	.790
Development of road and automobile industries	4.05	.816
Enhanced development of other allied industries	3.70	.932
Development of complimentary products	3.82	.961
Wide spread usage of rubber products	3.84	.797
Increased variety of end products from rubber	3.78	.951
Aid to attract foreign investment	3.75	.899

The above table indicates that variable Development of recycling operations of waste rubber scores a higher mean with 4.15 with the low standard deviation of 0.723. Variable Enhanced development of other allied industries scores a lower mean with 3.70 with the standard deviation of 0.932. The variable Development of complimentary products scores a higher standard deviation of 0.961 where as the variable increase the consumption of rubber products shows a low standard deviation of 0.566.

TABLE - 2
RESULTS OF KMO AND BARTLETT'S TEST

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.748
Bartlett's Test of Sphericity	Approx. Chi-Square	1391.337
	df	66
	Sig.	.000

This section presents the analysis of the data that was collected from the respondents. Table 2 represents the KMO and Bartlett's test. Twelve factors pertaining to the scope of distributors function for the growth of the rubber industry were subjected to factor analysis. Correlation matrix was computed to test the suitability of the data for factor analysis and the results were found to be satisfactory to go ahead with factor analysis. Bartlett's test of sphericity was

calculated to find whether the number of correlations among variables is statistically significant or not. Overall Kaiser-Meyer-Olkin was found to be 0.748 and Bartlett's test of sphericity was also significant (chi-square value = 1391.337, df = 66, significance =0.000) indicated the suitability of data for factor analysis.

TABLE - 3
RESULT OF PRINCIPLE COMPONENT ANALYSIS (PCA) ON DISTRIBUTORS OPINION

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.769	31.405	31.405	3.769	31.405	31.405	2.486	20.714	20.714
2	1.496	12.463	43.868	1.496	12.463	43.868	1.738	14.486	35.201
3	1.161	9.672	53.540	1.161	9.672	53.540	1.641	13.672	48.873
4	1.004	8.368	61.908	1.004	8.368	61.908	1.564	13.036	61.908
5	.972	8.102	70.010						
6	.804	6.697	76.707						
7	.615	5.125	81.832						
8	.539	4.489	86.321						
9	.517	4.305	90.626						
10	.481	4.009	94.635						
11	.342	2.853	97.488						
12	.301	2.512	100.000						

Extraction Method: Principal Component Analysis.

PCA was used for extracting factors. All factor loadings greater than 0.5 have been considered for analysis. The results of PCA with varimax rotation are shown in table 8.7.2. Factors with Eigen value more than 1 were considered for analysis. The table shows Eigen values for 4 factors as 3.769, 1.496, 1.161, and 1.004 respectively. It is observed that the percentage of variance explained by each of the 4 factors is 31.405, 12.463, 9.672 and 8.368. Total of 4 factors account for 61.908% of variance. Communalities show the amount of variance each variable in the analysis shares with other variables included in the analysis.

TABLE - 4
RESULT OF ROTATED COMPONENT MATRIX

Description	Component				communalities
	1	2	3	4	
Increased variety of end products from rubber	.795				.753
Enhanced development of other allied industries	.717				.557
Wide spread usage of rubber products	.620				.588
Considerable demand for industrial rubber products	.600				.395
Development of complimentary products	.552				.576
Increase the use of non-renewable resources		.820			.705
Aid to attract foreign investment		.754			.712
Development of road and automobile industries		.569			.670
Development of recycling operations of waste rubber			.821		.701
Adverse cause and impact on the environment			.753		.652
Increase the consumption of rubber products				.723	.543
Increase the public awareness for using rubber products				.665	.577
Eigen Value	**3.769**	**1.496**	**1.161**	**1.004**	
% of Variance	**31.405**	**12.463**	**9.672**	**8.368**	
Cumulative variance	**31.405**	**43.868**	**53.540**	**61.908**	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a] a. Rotation converged in 6 iterations.

The Bartlett's tests suggest that the factor model is significantly different from null model. The measures of sampling adequacy indicate that the variables share significant amount of common variance. All the variables with significant communalities are considered for factor analysis. The varimax rotation presented a theoretically significant 4 component structure.

The first factor is labeled as **end products** component due to high loadings by the following items: Increased variety of end products from rubber (0.795), Enhanced development of other allied industries (0.717), Wide spread usage of rubber products (0.620), Considerable demand for industrial rubber products (0.600), Development of complimentary products (0.552). The first factor has an Eigen value of 3.769 and explains 31.405 percent variance.

The second factor is labeled as **foreign investment** components due to high loadings by the following items: Increase the use of non-renewable resources (0.820), Aid to attract foreign investment (0.754), Development of road and automobile industries (0.569). This factor has an Eigen value of 1.496 and explains 12.463 percent variance

The third factor is labeled as **recycling** components due to high loadings by the following items: Development of complimentary products (0.514), Development of recycling operations of waste rubber (0.821), adverse cause and impact on the environment (0.753). This factor has an Eigen value of 1.161and explains 9.672 percent variance.

The fourth factor is labeled as **advertisement** component due to high loadings by the following items: Increase the consumption of rubber products (0.723), Increase the public awareness for using rubber products (0.665). This factor has an Eigen value of 1.004 and explains 8.368 percent variance. This is considered satisfactory.

Distributor's opinion on the factors which contributes to the growth of Rubber Industries

In this study, an attempt was made to understand the distributor's opinion on the factors which contributes to the growth of rubber industries in India by the sample respondents. For this purpose, seventeen growth factors were chosen and a five point scaling technique was employed.

TABLE - 5
LEVEL OF DISTRIBUTOR'S OPINION ON THE FACTORS WHICH CONTRIBUTES TO THE GROWTH OF RUBBER INDUSTRIES IN INDIA

General Indicators	SA	A	N	DA	SDA
Availability of Cheaper raw materials and labour	131 (29.1)	157 (34.9)	124 (27.6)	12 (2.7)	26 (5.8)
Enormous Growth in domestic market	117 (26.0)	220 (48.9)	77 (17.1)	30 (6.7)	6 (1.3)
Open up for entry of foreign companies in rubber industry	149 (33.1)	122 (27.1)	91 (20.2)	80 (17.8)	8 (1.8)
Protection from external competition	60 (13.3)	112 (24.9)	221 (49.1)	54 (12.0)	3 (0.7)
High quality on inward oriented production	153 (34.0)	193 (42.9)	79 (17.6)	25 (5.6)	0 (0)
Steady demand in international market/ Input source for large industries	88 (19.6)	212 (47.1)	125 (27.8)	22 (4.9)	3 (0.7)
Rapid growth of automobile industry	180 (40.0)	160 (35.6)	84 (18.7)	21 (4.7)	5 (1.1)
Availability of appropriate and relevant soil/ Favourable climatic conditions for rubber cultivation	28 (6.2)	275 (61.1)	107 (23.8)	34 (7.6)	6 (1.3)
Adoption of latest major technological practices is high	148 (32.9)	169 (37.6)	65 (14.4)	68 (15.1)	0 (0)

Higher productivity and yield	102 (22.7)	206 (45.8)	109 (24.2)	33 (7.3)	0 (0)
Research and technological development	118 (26.2)	216 (48.0)	73 (16.2)	24 (5.3)	19 (4.2)
Effect of globalisation and liberalisation	50 (11.1)	226 (50.2)	112 (24.9)	57 (12.7)	5 (1.1)
Cost of Manufacturing at minimum level	19 (4.2)	191 (42.4)	170 (37.8)	63 (14.0)	7 (1.6)
Efficient supply chain	80 (17.8)	200 (44.4)	136 (30.2)	18 (4.0)	16 (3.6)
Satisfactory government tariff rates and promotional measures	49 (10.9)	105 (23.3)	181 (40.2)	91 (20.2)	24 (5.3)
High possibility of backward integration	45 (10.0)	97 (21.6)	177 (39.3)	94 (20.9)	37 (8.2)
Dominance of dry rubber based products	95 (21.1)	143 (31.8)	133 (29.6)	62 (13.8)	17 (3.8)

Source: Primary Data

From the above table it can be inferred that, the general factors of the distributors that contribute to the growth of rubber industry have been strongly agree with rapid growth of automobile industry with 40% followed by high quality on inward oriented production with 34%, with open up of foreign companies in rubber industry 33.1% etc.,

The distributors are agreed with the factors that contribute to the growth of rubber industry with availability of appropriate and relevant soil/ favourable climatic conditions for rubber cultivation with 61.1%, followed by effect of globalisation and liberalisation with 50.2%, enormous growth in domestic market with 48.9% etc., The distributors stood neutral for Protection from external competition 49.1%, followed by satisfactory government tariff rates and promotional measures with 40.2%, high possibility of backward integration with 39.3% . The distributors have been disagreed with high possibility of backward integration with 20.9%, followed by satisfactory government tariff rates and promotional measures with 20.2%, Open up for entry of foreign companies in rubber industry with17.8%.

The distributors have been strongly disagreed with high possibility of backward integration with 8.2%, followed by availability of cheaper raw materials and labour with 5.8%, satisfactory government tariff rates and promotional measures with 5.3% etc.,

TESTING OF HYPOTHESIS

It is a proposition formulated for empirical testing, a tentative descriptive statement that describes the relationship between two or more variables. In the study the hypotheses taken are

H01: Opportunities and growth of the rubber products distributors strongly influence the growth of rubber industry.

Model – 1: Opportunities and Prospects of the Rubber Product Distributors

(Growth factors influence the opportunities of rubber product distributors)

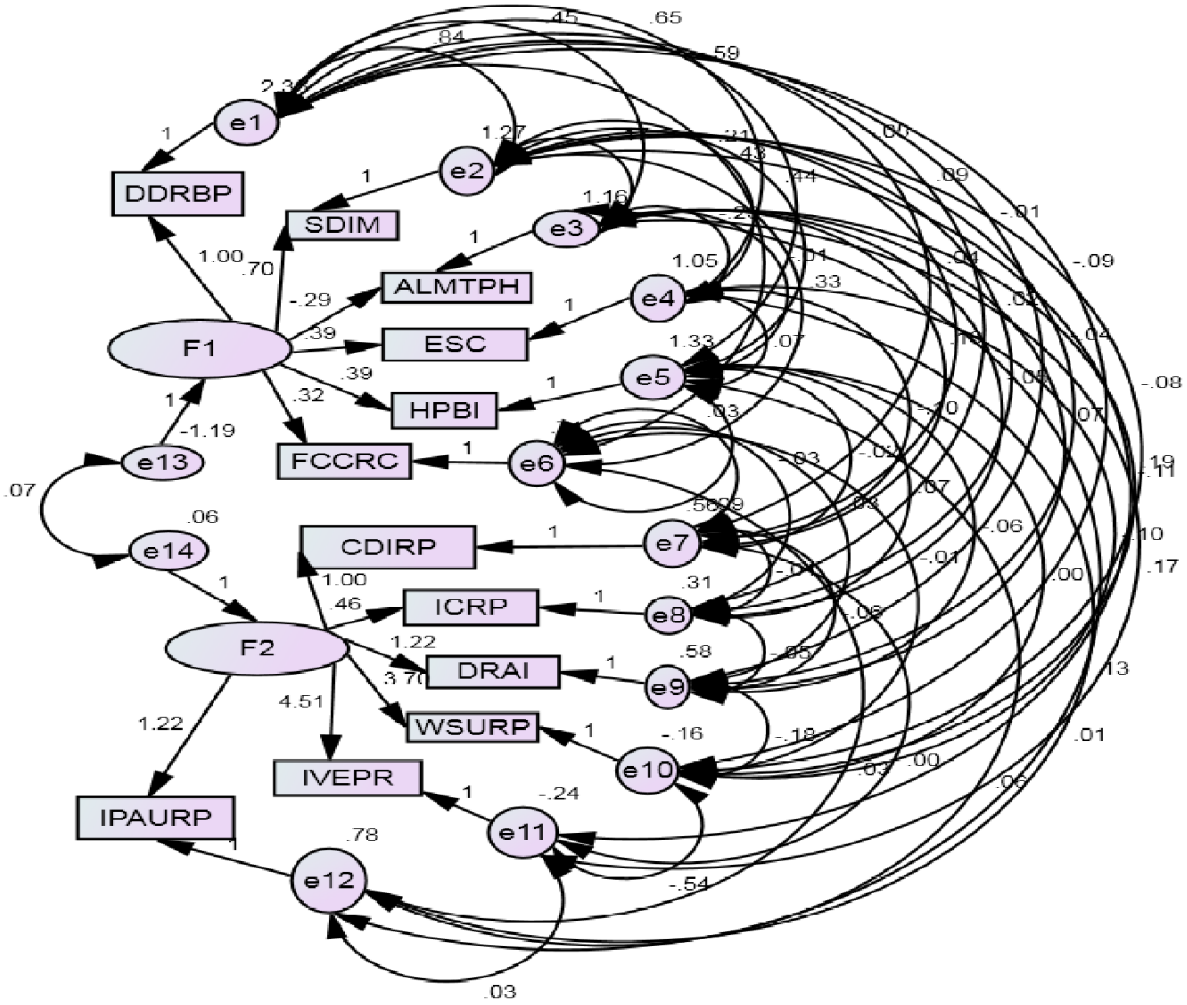

TABLE - 6 CONFIRMATIVE FACTORS USED TO CHECK THE RELIABILITY OF STUDY MODEL

F1:Growth Factors	**F2: Opportunity Factors**
DDRBP : Dominance of dry rubber based products	CDIRP : Considerable demand for industrial rubber products
SDIM : Steady demand in international market/ Input source for large industries	ICRP : Increase the consumption of rubber products
ALMTPH: Adoption of latest major technological practices is high	DRAI : Development of road and automobile industries
ESC : Efficient supply chain	WSURP : Wide spread usage of rubber

	products
HPBI : High possibility of backward integration	IVEPR : Increased variety of end products from rubber
FCCRC :Favourable Climatic Condition for Rubber Cultivation	IPAURP : Increase the public awareness for using rubber products

RESULTS AND DISCUSSION

Table 7: Summary Results of Measurement Model

Model	X^2	Df	p-Value	RMSEA	PGFI/PCFI	NFI	CFI	RFI	CMIN/DF
H_0	65.0	5	0.000	0.163	0.069	.069	0.916	0.225	12.990

The Chi-Square (X^2) value of 65.0 with the 5 degree of freedom is at the 0.05 (5%) significant level: its p – value is 0.000. This finding suggests that model fits the data acceptably from distributors of rubber products in Madurai district. Corroborating evidence is provided by the RMSEA fit statistics 0.163 the obtained value of 0.008 is less than the cut off 0.08. Similarly, the Tucker Lewis Index (TLI)/CMIN - DF result of 12.990 is considerably above the 0.95 threshold denoting satisfactory model fit.

In the above Model – 1, F1 and F2 (growth factors and opportunity factors of Rubber product distributors in Madurai, shows the effects of overall growth of the rubber industry and its the scores observed on the measures variables regarding growth factors and challenges and opportunities of the rubber products in the selected area of the study. The opportunities and prospects of F1 and F2 factors on the rubber industries are represented by single-headed arrows in the path diagram. Since the chi –square test of absolute model fit is reported, along with its degrees of freedom and probability value.

CONCLUSION

The rubber industry is one of the key sectors of the Indian economy. India is the fourth largest producer of natural rubber and the third largest consumer of the polymer. As far as consumption of natural and synthetic rubber together is concerned, the country occupies the fourth position. Although, rubber product manufacture started in India, in the year 1920, the industry has been mostly inward oriented, catering to the needs of the vast domestic market. But in the recent past the country has been transforming itself into a major rubber product exporter. The Study Concludes that there is a strong influence to summarize, the opportunities and prospects of the rubber product distributors the model proves that there is strong impact of growth and opportunities of rubber products distributors.

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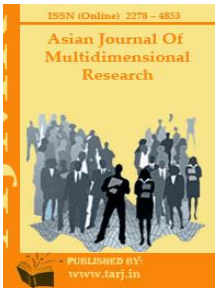

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PARTICIPATION IN HIGHER EDUCATION OF SOCIALLY EXCLUDED POPULATION (SCHEDULED CASTE/SCHEDULED TRIBES) - AN ASSESSMENT OF INDIAN STATES

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ABSTRACT

In the emerging scenario of knowledge based society of 21st century, higher education becomes a crucial issue in creating skilled and knowledgeable human resources. The Indian constitution resolves to provide quality education to socially excluded population and the Government of India has earmarked 15 percent and 7.5 percent reservation for scheduled castes and scheduled tribes respectively for enrolment in higher education. In this context the research study on, Participation in higher education of socially excluded population (Scheduled Caste/Scheduled Tribes)- An assessment of Indian States was formulated with the objectives of finding out the state wise variation in enrolment of scheduled caste and scheduled tribes in higher education, and identifying the determinants of participation in higher education The study was related to 17 major States of India. The required data were compiled from All India Survey on Higher Education. The study was related to 2013-2014, 2014-2015 and 2015-2016. The study applieddiscriminant analysis and calculated social group disparity index and gender disparity index. The study found that in the reference period on an average, the gross enrolment ratio in higher education for scheduled caste was found to be the highest in Tamil Nadu (32.9 %) and lowest in Bihar (8.7 %). The enrolment ratio in higher education for scheduled tribes was found to be the highest in Tamil Nadu (30.8%) and lowest in Madhya Pradesh (7.8%). The significant

determinant of enrolment in higher education for scheduled caste and scheduled tribes was population in the age group of 18-23 years. The study recommended that States with higher share of scheduled caste and scheduled tribes population must be provided higher share in the national corpus meant for higher education.

KEYWORDS: *Education, Quality, Scheduled Caste, Scheduled Tribes and States*

INTRODUCTION

In the emerging scenario of knowledge based society of 21st century, higher education becomes a crucial issue in creating skilled and knowledgeable human resources to meet the forthcoming challenges of the changing World. Higher education imparts in-depth knowledge and understanding so as to advance the students to new frontiers of knowledge in different walks of life. It is considered to be the major area in promoting and accelerating the process of national development.Amartya Sen and Jean Dereze (1995) argued that higher education is one of the most important inputs that influence the all-round development of any nation.

With its own historical heritage, Indian higher education system is the third largest in the World, just after China and United States.As on June, 2017 there are 47 central universities, 367 state universities, 282private state universities, and 123deemed to be universities and 55 institutes of national importance and 37,204 colleges (source-UGC, MHRD).The gross enrolment in higher education in India has risen from 0.7 percent in 1950 to about 24.5percent in 2016but still it is extremely low as compared to the average of 54.6 percent for the developing countries.

The Indian constitution resolves to provide quality education to socially excluded population.Article 46 of the Indian constitution states that 'the State shall promote with special care, the education and economic interest of the weaker sections of the people and in particular of the scheduled castes and scheduled tribes and shall protect them from social injustice'. In tune with this, the University Grants commission has earmarked 15 percent and 7.5 percent reservation for scheduled castes and scheduled tribes respectively for enrolment in higher education.Further the Government of India formulated various schemes for increasing the participation in higher education for scheduled caste and scheduled tribes. The prominent schemes are:

- Top classeducation for scheduled caste students-This scheme provides full financial support to scheduled caste students for enrolment in notified institutions of excellence like IITs,IIMs etc
- Rajiv Gandhi National Fellowship:-This scheme is open to scheduled caste and scheduled tribestudentsfor pursuing full time M.Phil and Ph.D degree in science, humanities, engineering and technology.
- Establishment of Scheduled caste/ scheduled tribes cells in universities to ensure effective implementation of reservation policy for scheduled castes and scheduled tribes.
- Remedial coaching scheme at UG/PG level.
- Providing post metric scholarships to students for higher education.
- Providing text books to scheduled castes and scheduled tribes students enrolled in medical and engineering courses.
- Scholarships and passage grants for higher education abroad.

In spite of these measures the gross enrolment of scheduled caste and scheduled tribes students in higher education was low as compared to All Categories. In 2015-16 while the gross enrolment ratio in higher education for scheduled caste was(19.9) onlyand for scheduled tribes it was (14.2), for All Categories the gross enrolment ratio in higher educationwas (24.5).

Further there exist interstate variation in higher education for scheduled caste and scheduled tribe students. The gross enrolment ratio in higher education for scheduled caste students was thehighest in Tamil Nadu (32.9) it was the lowest in Bihar (8.7) in 2015 -2016.

In this context, the research study on**Participation in higher education of socially excluded population (SC/ST) - An assessment of Indian States**was formulated with following **objectives;**

- To find out state wise variation in enrolment of scheduled caste and scheduled tribes in higher education.
- To find out the disparity in enrolment of scheduled caste and scheduled tribes in higher education with that of all categories.
- To find out the gender disparity in higher education of scheduled caste and scheduled tribes, and
- To identify the determinants of participation in higher education for scheduled caste and scheduled tribes.

RELATED STUDIES

Bhattacharya (2012), by analysing issues in higher education in India noted that higher education in India has become markedly tilted towards professional learning.Singh (2012), in the study on perspectives of higher education with special reference to poor and educationally backward states remarked that inadequate funding for higher education was the major problem faced by Indian universities.According to Raju Narayana Swamy(2013) the enrolment of scheduled caste and scheduled tribes students as a percentage of total enrolment in higher education was 11.6% and 9.8% respectively in 2012.

METHODOLOGY

The study was related to 17 major States of India- Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. This is due to fact that these States account for 90 percentage of population of the country. The required data were compiled from All India survey on Higher Education- Various issues, Ministry of Human Resource Development, New Delhi. The study was related to 2013-2014, 2014-2015 and 2015-2016 since it is the latest years for which the required data are available.

The study formulated the following hypothesis:

- There is no disparity in enrolment in higher education of scheduled caste and scheduled tribes population with that of All Categories
- There is no gender disparity in enrolment in higher education of scheduled caste and scheduled tribesand
- The participation in higher education of scheduled caste and scheduled tribes is not significantly influenced by the number of universities, number of colleges ,number of

teachers, expenditure of higher educationand scheduled caste and scheduled tribes population in the age group of 18-23 years.

QUANTITATIVE TOOLS USED:

(i). Gender disparity index:

Gender disparity index is defined as the gross enrolment ratio in higher education of males divided by the gross enrolment ratio in higher education of females. It is calculated as follows:

$$\mathbf{GDI} = \frac{MER}{FER} X\ \mathbf{100}$$

ii). Social group disparity index:

Social group disparity index is defined as the gross enrolment ratio in higher education of scheduled caste/ scheduled tribes divided by the gross enrolment ratio in higher education of All Categories. It is calculated as follows:

$$\mathbf{SDI} = \frac{GER(SC/ST)}{GER(All\ Categories)} X\ \mathbf{100}$$

(iii). Discriminant analysis

The study applied discriminant analysis to find out the factors causing interstate variation in participation in higher education of scheduled caste and scheduled tribes.On the basis of scheduled caste and scheduled tribe enrolment in higher education the States were classified into two groups. The States having enrolment ratio higher than the average comprises of Group I. Group II comprises of the States having enrolment ratio below the national average. The estimated discriminant function is of the form,

$$Y=b_1X_1+b_2X_2+b_3X_3+b_4X_4+b_5X_5+b_6X_6+b_7X_7+bx_8X_8$$

Where,

Y= Enrolmentratio in higher education of scheduled caste /scheduled tribes;
X_1=Expenditure on education;
X_2=Population in the age group of18-23 years;
X_3= Number of universities;
X_4= Numberof teachers and
X_5= Number of colleges;

When Group I was compared with Group II on the basis of measurement of several variables a discriminant co- efficient function which can discriminate between the two groups significantly was derived. To test whether there exists difference between the two groups the following F test was used. The formula used was

$$F = \frac{N1+N2(P-1)}{P} \frac{N1+N2}{(N1+N2)(N1+N2-1)} \text{ x } D^2$$

where,

N_1= Number of cases in Group I
N_2= Number of cases in Group II and
D^2= Mahalanobis D square statistics

In order to find the relative importance of variables that discriminate between the two groups the relative share of each variable was calculated. The relative share of each variable was calculated as follows:

$$DP^2=\lambda_1d_1+\lambda_2d_2+\lambda_3d_3+\lambda_4d_4.....\lambda pdp.$$

λ_1 is the co-efficient of first variable in the discriminant function form representing the two groups, d_1 is the difference in the mean value of the two groups for the first variable. In DP^2, $\lambda_i d_i$

gives the contribution of i^{th} variable to the total distance. Total distance between each variable has been calculated to find out the relatively more important variables that discriminate the two groups. The discriminant function was estimated by using SPSS 16.0 version and it was calculated separately for scheduled castes and scheduled tribes.

FINDINGS OF THE STUDY

A. Analysis of State wiseenrolment in higher education of socially excluded population

Table- 1 represents the state wise enrolment in higher education of scheduled castes students.

TABLE-1
STATE WISE ENROLMENT IN HIGHER EDUCATION OF SCHEDULED CASTES STUDENTS

States	2013-14			2014-15			2015-16			Average		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh	125125	120115	245240	149693	120103	269796	146454	117688	264142	140424	119302	259726
Assam	24436	21865	46301	22509	20681	43190	24703	22120	46823	23883	21555	45438
Bihar	84671	51507	136178	84577	53152	137729	96535	59270	155805	88594	54643	143237
Gujarat	67674	51444	119118	70044	52503	122547	74243	56010	130253	70653	53319	123973
Haryana	69585	48493	118078	68611	51854	120465	63751	51120	114871	67316	50489	117805
Himachal Pradesh	15624	15764	31420	18809	18967	37776	19818	21216	41034	18084	18649	36743
Jammu & Kashmir	8287	9266	17553	8439	9628	18067	7512	9212	16724	8079	9369	17448
Karnataka	127782	106395	234177	128856	114416	243272	124945	113675	238620	127194	111495	238689
Kerala	2000	3643	56431	20838	37047	57885	22714	39289	62003	15184	26659	58773
MadhyaPradesh	111810	71221	183031	122579	79645	202224	129383	89651	219034	121257	80172	201429
Maharashtra	211177	155710	366887	237833	185837	423670	273617	214671	488288	240876	185406	426282
Odisha	46839	39940	86779	555773	44310	100083	67327	53218	120545	223313	45823	102469

Punjab	75624	67189	142813	86024	76870	162894	104253	92114	196367	88634	78724	167358
Rajasthan	136359	91075	227434	137904	93482	231386	141594	100777	242371	138619	95111	233730
TamilNadu	260898	251915	512813	267619	272685	540304	274323	277354	551677	267613	267318	534931
UttarPradesh	443061	432852	875913	535777	468926	1004703	538426	469129	1007555	505755	456969	962824
West Bengal	181687	135599	317286	193167	148444	341611	189672	152953	342625	188175	145665	333841
AllIndia	2290173	1948034	4238207	2504463	2102203	4606666	2606117	2204197	4810314	2466918	204811	4551729

Source: All India survey on higher education-MHRD

On an average in the reference period, the number of scheduled caste students enrolled in higher education was found to be the highest in Uttar Pradesh (962824) and lowest in Jammu and Kashmir (17448). The number of male students enrolled in higher education was found to be the highest in Uttar Pradesh (505755) and lowest in Jammu and Kashmir (8079) and the number of female students enrolled was the highest in Uttar Pradesh (456969) and lowest in Jammu and Kashmir (9369).

Table –2 represents the state wise enrolment in higher education of scheduled tribes.

TABLE –2
STATE WISE ENROLMENT IN HIGHER EDUCATION OF SCHEDULED TRIBES

States	**2013-14**			**2014-15**			**2015-16**			**Average**		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Andhra Pradesh	33796	30187	63983	40903	32937	73840	39407	32293	71700	38035	31806	69841
Assam	37645	40778	78423	42536	41648	84184	45700	44005	89705	41960	42144	84104
Bihar	8807	6211	15018	10539	7589	18128	9303	7627	16930	9549	7142	16692
Gujarat	60299	56190	116489	64296	62140	126436	64546	62603	127149	63047	60311	123358
Haryana	1488	701	2189	1972	654	2626	1623	606	2229	1694	654	2348
Himachal Pradesh	4942	5121	10063	6073	5997	12070	6701	7118	13819	5905	6079	11984
Jammu &	779	658	1437	820	640	1461	773	638	1411	791	645	1436

Kashmir	5	1	6	8	3	1	1	4	5	1	6	7
Karnataka	43763	35925	79688	45386	37837	83223	44571	38264	82835	44573	37342	81915
Kerala	3062	4082	7144	2976	4301	7277	3163	4728	7891	3067	4370	7437
MadhyaPradesh	66779	49107	115886	77061	55627	132678	83508	64224	147732	75783	56319	132099
Maharashtra	85006	47465	132471	96976	58562	155538	111117	70249	181366	97699	58759	156458
Odisha	35819	32030	67849	43197	36522	79719	51501	43321	94822	43506	37291	80797
Punjab	2459	1042	3501	2743	1493	4236	3828	1687	5515	3010	1407	4417
Rajasthan	96070	69808	165878	99957	73381	173338	95189	74367	169556	97072	72518	169591
TamilNadu	14835	9541	24376	16113	11168	27281	14789	11667	26456	15246	10792	26038
UttarPradesh	17351	15103	32454	20708	17278	37986	21116	17225	38341	19725	16535	36260
West Bengal	32792	24952	57744	36343	27738	64081	33674	28729	62403	34269	27139	61409
AllIndia	808804	677708	1486512	893511	747298	1640809	916917	787544	1704461	873077	737517	1610594

Source: All India survey on higher education-MHRD

The number of scheduled tribes students enrolled in higher education was highest in Rajasthan (169591) and lowest in Haryana (2348). The scheduled tribes males enrolled in higher education were highest in Maharashtra (97699) and lowest in Haryana (1694). The scheduled tribes females enrolled in higher education was found to bethe highest in Rajasthan (72518) and lowest in Haryana (654).

B.Analysis of State wise gross enrolment ratio in higher education:

Table –3 represents the State wise gross enrolment ratio in higher educationfor scheduled caste students.

TABLE -3
STATE WISE GROSS ENROLMENT RATIO IN HIGHER EDUCATION FOR SCHEDULED CASTE (IN PERCENT)

States	2013-14			2014-15			2015-16			Average		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh	23.9	22.5	23.2	28.9	22.7	25.8	28.6	22.4	25.5	27.1	22.5	24.8
Assam	17.4	16.0	16.7	16.0	15.1	15.5	17.5	16.0	16.8	16.9	15.7	16.3
Bihar	10.2	6.5	8.4	10.1	6.5	8.3	11.4	7.1	9.3	10.6	6.7	8.7
Gujarat	25.3	21.5	23.5	26.1	21.8	24.1	27.7	23.1	25.5	26.4	22.1	24.4
Haryana	18.9	15.8	17.5	18.6	16.9	17.9	17.3	16.7	17.0	18.3	16.5	17.5
HimachalPradesh	15.5	16.1	15.8	18.8	19.7	19.2	20.0	22.3	21.1	18.1	19.4	18.7
Jammu & Kashmir	14.5	17.4	15.9	15.0	18.4	16.6	13.6	17.9	15.7	14.4	17.9	16.1
Karnataka	19.3	16.6	18.0	19.7	18.0	18.8	19.3	18.0	18.7	19.4	17.5	18.5
Kerala	14.2	25.8	20.0	14.9	26.5	20.7	16.4	28.5	22.4	15.2	26.9	21.0
MadhyaPradesh	14.8	11.2	13.1	16.2	12.4	14.4	17.0	13.8	15.5	16	12.4	14.3
Maharashtra	24.4	19.6	22.1	27.6	23.4	25.6	31.9	27.0	29.6	27.9	23.3	25.8
Odisha	11.4	9.6	10.5	13.6	10.7	12.2	16.5	12.9	14.7	13.8	11.1	12.5
Punjab	12.6	13.0	12.8	14.5	15.1	14.8	17.7	18.4	18.0	14.9	15.5	15.2
Rajasthan	16.4	12.5	14.6	16.4	12.7	14.7	16.7	13.4	15.2	16.5	12.9	14.8
TamilNadu	32.0	30.1	31.0	33.3	33.1	33.2	34.6	34.2	34.4	33.3	32.5	32.9
UttarPradesh	16.8	19.6	18.1	20.2	21.0	20.6	20.3	20.7	20.5	19.1	20.4	19.7
West Bengal	13.4	10.20	11.9	14.4	11.2	12.8	14.2	11.5	12.8	14.0	10.9	12.5
AllIndia	17.7	16.4	17.1	20.0	18.2	19.1	20.8	19.0	19.9	19.5	17.9	18.7

Source: All India survey on higher education-MHRD

In the reference period on an average, the grossenrolment ratio inhigher education for scheduled caste was found to be the highest in Tamil Nadu (32.9 %) and lowest inBihar (8.7 %). Thegross

enrolment ratio inhigher education for scheduled caste males was the highest in Tamil Nadu (33.3 %) and lowest in Bihar (10.6%). Similarly thegross enrolment ratio in higher education for scheduled caste females was the highest in Tamil Nadu (32.5%) and lowest in Bihar (6.7%).

Table- 4 represents the state wise gross enrolment ratio in higher education for scheduled tribes.

TABLE -4
STATE WISE GROSS ENROLMENT RATIO IN HIGHER EDUCATION FOR SCHEDULED TRIBES (IN PERCENT)

States	2013-14			2014-15			2015-16			Average		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh	23.0	18.2	20.5	28.1	20.1	23.9	27.4	19.8	23.4	26.2	19.4	22.6
Assam	17.2	16.9	17.1	19.4	17.2	18.2	20.8	18.0	19.3	19.1	17.4	18.2
Bihar	13.0	9.6	11.3	15.3	11.4	13.4	13.4	11.2	12.3	13.9	10.7	12.3
Gujarat	12.5	11.8	12.2	13.3	13.0	13.2	13.4	13.0	13.2	13.1	12.6	12.9
Haryana	-	-	-	-	-	--	-	-	-	-	-	-
HimachalPradesh	22.3	22.9	22.6	27.6	27.2	27.4	30.8	32.7	31.8	26.9	27.6	27.2
Jammu & Kashmir	9.9	8.8	9.4	10.6	8.7	9.7	10.2	8.8	9.5	10.2	8.8	9.5
Karnataka	16.3	14.0	15.1	17.1	14.8	16.0	16.9	15.1	16.1	16.8	14.6	15.7
Kerala	13.0	16.2	14.7	12.7	17.3	15.1	13.6	19.2	16.5	13.1	17.6	15.4
MadhyaPradesh	7.9	5.8	6.9	9.1	6.5	7.8	9.8	7.4	8.6	8.9	6.6	7.8
Maharashtra	13.7	7.7	10.7	15.7	9.5	12.6	18.1	11.4	14.7	15.8	9.5	12.7
Odisha	7.4	6.0	6.7	8.9	6.9	7.9	10.7	8.2	9.4	9.0	7.0	8.0
Punjab	-	-	-	-	-	-	-	-	-	-	-	-

Rajasthan	17.4	13.1	15.3	17.9	13.6	15.8	16.9	13.5	15.2	17.4	13.4	15.4
Tamil Nadu	35.5	21.7	28.4	39.1	25.8	32.3	36.4	27.3	31.8	37.0	24.9	30.8
UttarPradesh	27.7	24.9	26.4	33.0	28.1	30.6	33.5	27.7	30.6	31.4	26.9	29.2
West Bengal	10.2	7.3	8.7	11.4	8.1	9.7	10.6	8.4	9.5	10.7	7.9	9.3
AllIndia	12.5	10.2	11.3	15.2	12.3	13.7	15.6	12.9	14.2	14.4	11.8	13.1

Source: All India survey on higher education-MHRD

The enrolment ratio in higher education for scheduled tribes was found to be the highest in Tamil Nadu (30.8%) and lowest in Madhya Pradesh (7.8%) The enrolment ratio in higher education for scheduled tribe males was the highest in Tamil Nadu (37.0%)and lowest in Madhya Pradesh (8.9%). Thegross enrolment ratio in higher education for scheduled tribes females was the highest in Himachal Pradesh (27.6%) and lowest in Madhya Pradesh (6.6%).

C. Analysis of social groupdisparity in higher education:

Table- 5 represents the estimated disparity index in enrolment in higher education of scheduled casteand scheduled tribes with that of all categories of students

TABLE-5
ESTIMATED DISPARITY INDEX IN ENROLMENT IN HIGHER EDUCATION OF SCHEDULED CASTE /SCHEDULED TRIBES WITH THAT OF ALLCATEGORIES OF STUDENTS (IN PERCENT)

States	**Scheduled caste**				**Scheduled tribes**			
	2013-14	**2014-15**	**2015-16**	**Average**	**2013-14**	**2014-15**	**2015-16**	**Average**
Andhra Pradesh	13.92	15.26	15.31	14.83	3.63	4.17	4.16	3.98
Assam	7.99	7.90	8.20	8.03	13.54	15.41	15.71	14.88
Bihar	9.70	9.00	9.72	9.47	1.07	1.18	1.05	1.10
Gujarat	8.56	8.53	8.75	8.61	8.37	8.80	8.55	8.57
Haryana	13.49	13.72	13.81	13.67	-	-	-	-
Himachal Pradesh	14.07	16.08	16.97	15.70	4.50	5.13	5.71	5.11
Jammu & Kashmir	4.95	5.34	5.02	5.10	4.06	4.32	4.24	4.20
Karnataka	12.31	12.82	12.84	12.65	4.18	4.38	4.45	4.33

Kerala	7.29	6.54	6.60	6.81	0.92	0.82	0.84	0.86
MadhyaPradesh	10.77	11.80	12.69	11.75	6.82	7.74	8.56	7.70
Maharashtra	10.42	11.33	12.24	11.33	3.76	4.16	4.54	4.15
Odisha	11.29	12.10	13.17	12.18	8.83	9.64	10.36	9.61
Punjab	16.89	18.24	22.35	19.16	-	-	-	-
Rajasthan	13.59	13.44	13.75	13.59	9.91	10.07	9.62	9.86
TamilNadu	15.82	16.11	17.05	16.32	0.75	0.81	0.81	0.79
UttarPradesh	16.80	16.56	16.78	16.71	0.62	0.63	0.63	0.62
West Bengal	17.77	17.97	17.78	17.84	3.23	3.37	3.23	3.27
AllIndia	13.10	13.46	13.90	13.48	4.59	4.79	4.92	4.76

Source: Calculated figure based on the data complied

Theestimated disparity index in enrolment in higher education of scheduled caste students with that of all categories was found to be highest in West Bengal (17.84%) and lowest in Jammu and Kashmir (5..10%). Theestimateddisparity index in enrolment in higher education of scheduled tribes students wasthe highest in Assam (14.88%) and lowest in Uttar Pradesh (0.62%)).

D.Analysis of gender disparity in higher education:

Table-6 represents theestimated gender disparity index in enrolment in higher education for scheduled caste and scheduled tribes.

TABLE -6
ESTIMATED GENDER DISPARITY INDEX IN ENROLMENT IN HIGHER EDUCATION FOR SCHEDULED CASTE AND SCHEDULED TRIBES (IN PERCENT)

States	**Scheduled caste**				**Scheduled tribes**			
	2013-14	**2014-15**	**2015-16**	**Average**	**2013-14**	**2014-15**	**2015-16**	**Average**
Andhra Pradesh	106.2	127.3	127.7	120.4	126.4	139.8	138.4	134.9
Assam	108.8	105.9	109.34	108.0	101.8	112.8	115.6	110.0
Bihar	156.9	155.4	160.6	157.6	135.4	134.2	119.6	129.6
Gujarat	117.7	119.7	119.9	119.1	105.9	102.3	103.1	103.8
Haryana	119.6	110.1	103.6	111.1	-	-	-	-
Himacha	96.2	95.4	89.7	93.8	97.4	101.5	94.2	97.7

lPradesh								
Jammu & Kashmir	83.3	81.5	75.9	80.3	112.5	121.8	115.9	116.5
Karnataka	116.3	109.4	107.2	110.9	116.4	115.5	111.9	114.6
Kerala	55.0	56.2	57.5	56.3	80.2	73.4	70.8	74.8
Madhya Pradesh	132.1	130.6	123.2	128.7	136.2	140.0	132.4	136.2
Maharashtra	124.5	117.9	118.1	120.2	177.9	165.3	15.7	167.3
Odisha	118.8	127.1	127.9	124.6	123.3	128.9	130.5	127.6
Punjab	96.9	96.0	96.2	96.4	-	-	-	-
Rajasthan	131.2	129.1	124.6	128.3	132.8	131.6	125.2	129.9
TamilNadu	106.3	100.6	101.2	102.7	163.6	151.6	133.3	149.5
UttarPradesh	85.7	96.2	98.1	93.3	111.2	117.4	1220.9	116.5
West Bengal	131.3	128.6	123.5	127.8	139.7	140.7	126.2	135.6
AllIndia	107.9	109.9	109.5	109.1	122.5	123.6	120.9	122.6

Source: Calculated figure based on the data complied

The gender disparity index in enrolment in higher education for scheduled caste was found to be the highest in Bihar (157.6%) and lowest in Kerala(56.3%)The gender disparity index in enrolment in higher education for scheduled tribes was found to be the highest in Maharashtra (167.3%) and lowest in Himachal Pradesh (97.7%).

E.Analysis of State wise number of universities, number of colleges and number of teachers.

Table-7 represents theState wise number of universities, number of colleges and number of teachers.

TABLE-7
STATE WISE NUMBER OF UNIVERSITIES, NUMBER OF COLLEGES AND NUMBER OF TEACHERS

States	Number of universities				Number of colleges				Number of teachers			
	2013-14	**2014-15**	**2015-16**	Average	**2013-14**	**2014-15**	**2015-16**	Average	**2013-14**	**2014-15**	**2015-16**	Average

Andhra Pradesh	27	28	28	27	2568	2673	2532	2591	97958	103554	108112	103208
Assam	18	19	21	19	536	538	539	537	19825	21564	22482	21290
Bihar	21	22	22	21	704	732	744	726	24813	30582	29944	28446
Gujarat	44	49	57	50	1944	1989	2019	1984	51261	52109	55647	53005
Haryana	31	37	39	35	1098	1113	1113	1108	48077	49438	45722	47745
HimachalPradesh	23	24	25	24	296	321	348	321	10201	11004	10999	10734
Jammu & Kashmir	11	11	11	11	327	325	329	327	10606	10661	10857	10708
Karnataka	45	51	52	49	3310	3492	3555	3452	136054	137458	136541	136684
Kerala	18	18	20	18	1151	1259	1302	1237	50084	53230	59596	54303
MadhyaPradesh	39	41	43	41	2136	2292	2260	2229	63618	70964	73345	69309
Maharashtra	45	45	45	45	4498	4646	4569	4571	152193	163962	165638	160598
Odisha	21	21	21	21	1067	1070	1076	1071	39717	41852	43648	41739
Punjab	22	24	26	24	997	1006	1050	1017	51182	52472	55707	53120
Rajasthan	63	64	70	65	2774	2892	3050	2905	74992	73952	68904	72616
TamilNadu	58	58	58	58	2460	2477	2368	2435	190690	203843	209228	201254
UttarPradesh	62	63	67	64	5445	6026	6491	5987	132596	157330	175718	155215
West Bengal	27	31	34	30	985	1051	1082	1039	45835	50435	54161	50143
AllIndia	723	760	799	760	36634	38498	39071	38067	1367535	1473255	1518813	1453201

Source: All India survey on higher education-MHRD

The average number of universities was the highest in Rajasthan (65) and lowest in Jammu and Kashmir (11). The average number of colleges was found to be highest in Uttar Pradesh (5987) and lowest in Himachal Pradesh (321). The average number of teachers was thehighest in Tamil Nadu (201254) and lowest in Jammu Kashmir (10734).

F. **Identification of determinants of participation in higher education for scheduled caste and scheduled tribes in population:**

Table- 8 represents the estimated discriminantfunction coefficients of gross enrolment ratio in higher education for scheduled caste as related to the selected variables.

TABLE- 8
ESTIMATEDDISCRIMINANT FUNCTION COEFFICIENTS OF GROSS ENROLMENT RATIO IN HIGHER EDUCATION FOR SCHEDULED CASTE AS RELATED TO THE SELECTED VARIABLES.

Items	Group-I Mean	Group-II Mean	Mean difference (xi)	Discriminant co-efficient (bi)	bi X xi	Relative Discriminating power (in percent)
Expenditure on education (X1)	15610	24255	8645	0.374	3233.23	0.0331
Population in age group of 18-23 years (X2)	622480	8594600	7972120	1.217	9702070.04	99.6181
Number of universities (X3)	29.6667	41.8750	12.2083	0.323	3.9432	0.00004
Number of teachers (X4)	43902	109380	65478	0.487	31887.78	0.3274
Number of colleges(X5)	1217	2822	1605	1.287	2065.63	0.0212

Source: Calculated figures based on the data complied

Of the selected factors, scheduled caste population in age group of 18-23 years accounted for 99.61 percent variation in participation in higher education, while number of teachers accounted for 0.3274 percent variation in participation in higher education. The canonical correlation which is the measure of the degree of association between the selected variables was .680. To test the significance of lambda (.17) it was transformed to chi square value 7.757 and its significance level indicates that the two groups had differed.

Table- 9 represents the estimateddiscriminant function coefficients of gross enrolment ratio in higher education for scheduled tribes as related to the selected variables.

TABLE- 9
ESTIMATEDDISCRIMINANT FUNCTION COEFFICIENTS OF GROSS ENROLMENT RATIO IN HIGHER EDUCATION FOR SCHEDULED TRIBES AS RELATED TO THE SELECTED VARIABLES.

Items	Group-I Mean	Group-II Mean	Mean difference (xi)	Discriminant co-efficient (bi)	bi X xi	Relative Discriminating power (in percent)
Expenditure on education (X1)	21469	20417	1052	1.301	0.0012	0.0115
Population in age group of 18-23 years (X2)	8229900	7597600	632300	0.493	7.7969	75.2474
Number of universities (X3)	31.2857	40.50000	9.2143	0.142	0.0154	0.1486
Number of teachers (X4)	59135	94413	35278	0.898	2.54550	24.5697
Number of colleges(X5)	1706	2433	727	1.007	0.0013	0.0125

Source: Calculated figures based on the data complied

Of the selected factors, scheduled tribes population in age group of 18-23 years accounted for 75.24 percent variation in participation in higher education, while number of teachers accounted for 24.57 percent variation in participation in higher education. The canonical correlation which is the measure of the degree of association between the selected variables was .548. To test, the significance of lambda (.586) it was transformed to chi square value 18.56 and it's significance level indicates that the two groups had differed.

CONCLUSION

The gross enrolment ratio in higher education for scheduled caste population was higher than that of scheduled tribes population in all States of India.There exists social group disparity in higher education.There exists gender disparity in higher education both for scheduled caste and scheduled tribes and **t**he significant determinant of enrolment in higher education for scheduled caste and scheduled tribes was population in the age group of 18-23 years.

RECOMMENDATIONS

- States with higher share of scheduled caste and scheduled tribes population must be provided higher share in the national corpus meant for higher education.
- Persons having adequate insight and experience about the socially excluded groups must be provided adequate representation in all the bodies constituted for the purpose of higher education in the country and

- Proper steps must be formulated to ensure that inclusion is not done atthe cost of academic standard.

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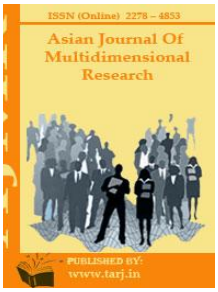

Asian Journal of Multidimensional Research (AJMR)

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UGC APPROVED JOURNAL

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BOTTOM BILLION STRATEGY- SMART VILLAGES

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ABSTRACT

In India where two-thirds of the population lives in around 600,000 villages, empowering villagers to create income-generating enterprises can lead to improved food security, education and health, and to participatory democracy. The concept of the "smart village" is that modern energy access can act as a catalyst for sustainable development for a neglected group of people—the 'bottom billion' who often live in remote off-rural communities. National estimates show that poverty among smallholders is much higher than for other farmers. The rising number of marginal and small landholdings along with the large number of people that continue to be employed in agriculture is a major development challenge for policymakers. This highlights the opportunity of adopting the concept of smart villages and promoting productive enterprises to raise income levels of marginal landholders and landless agricultural labourers as well as promoting non-farm activities within rural areas. There is no denying fact that we need smart villages. This is the biggest challenge facing all developing countries today. There are technologies available and they are successful elsewhere. But the failure comes from lack of strategy, integrated planning and execution. Yet, several decades after independence, we are nowhere close to realizing Gandhi's vision of empowered villages. Rural India remains in a deplorable state. We need efficient strategies to uplift the rural community which is very much imperative than Smart Cities. These Smart Villages will complement the ambitious urban development project of Smart Cities. Development of 'smart villages' will bring financial prosperity to these places, besides better education and healthcare facilities.

KEYWORDS: *Catalyst, Smart Village, Empowered Villages.*

INTRODUCTION

In a way, Mahatma Gandhi conceptualized smart villages. A champion of participatory democracy and grassroots development, he believed that making villages self-contained and sustainable was the first step towards empowering India. Contrary to popular belief, he wasn't against industrialization, markets and competition as long as they did not lead to the passive or active exploitation of villagers. There is no denying fact that we need smart villages. This is the biggest challenge facing all developing countries today. There are technologies available and they are successful elsewhere. But the failure comes from lack of strategy, integrated planning and execution .The ecosystem framework of a village and city based on its location and investment climate will guide in developing growth strategies. They can be replicated to millions of villages and towns around the World and this is in line with the inclusive growth initiatives.

Strategy to uplift Rural Community-Smart Villages:

Development of 'smart villages' will bring financial prosperity to these places, besides better education and healthcare facilities. There will be enough opportunities for shopping and marketing. A glaring example is Harisal, a small village in Amravati district in the western Indian state of Maharashtra. Over the past year, the Maharashtra government and Microsoft have collaborated to develop a strategic framework for smart village adoption and to identify an impact-driven, public-private partnership-enabled implementation model to transform Harisal into India's first smart village.

The concept of the "smart village" is that modern energy access can act as a catalyst for sustainable development for a neglected group of people—the 'bottom billion' who often live in remote off-grid communities. With the right framework conditions in place, advances in the use of renewable energy solutions, solar, wind, hydro, biomass and hybrid combinations offer attractive and sustainable opportunities for rural communities to improve access to energy and add value to agriculture.

Access to reliable energy will be a key catalyst to transform agriculture from subsistence to commercial enterprise, especially for youth. Energy enables irrigation, charging of mobile phones to access production recommendations and market access and supports processing of produce into value added products that when taken together will enable farmers to double their incomes by 2022 .

KINDS OF CAPITAL TO INVEST:

A person has three kinds of capital:

1. Financial Capital- Cash on Hand, Reserves in the Bank; Assets, etc

2. Human Capital: natural abilities, health, intelligence, look combined with education and experience to excel in certain tasks

3. Social Capital which is relationships with others who get opportunity to use his financial and human capital.

Such capital which is available with rural population can be utilized to build smart villages. The different capital can be strategically invested so that the infrastructure available can be enhanced to support Smart Village. Thus employment opportunities can be increased to support them

economically and their prosperity will build confidence in villages in other countries too thus paving way for empowered global Village.

CONDITIONS NEEDED

- Creating policies that Increase awareness among the multiple stakeholders from farmers to decision takers
- Demonstration of successful prototypes and business models can help to villagers
- Addressing key concerns of those based in rural areas such as sources to affordable and sustainable finance for capital.
- Developing village clusters which need a stable and supportive environment with a close engagement of villagers in the phases of design and implementation, a favourable climate for private investors.
- Creating policies to protect the commercial viability of ideas promoted that are more sustainable in the long term.
- Developing policies to promote agri-food systems and help production, processing, and value addition in smart villages, and also provide training that supplements indigenous skills as well as gaining access to markets with the objective of creating economic empowerment and improved quality of life for rural communities.
- Implementing government support for Agropreneurs in the rural community involving particularly women and youth.
- Encouraging technology training and capacity building through the application of information and communication technologies ensuring digital and IT-readiness
- Improving cooking and dietary strategies which progress by developing standards and testing facilities for cook stoves, and technical support and training for producers to help improve product quality.
- Co-operating with international development agencies to face any challenges. Smart villages must be data-driven and cloud-powered
- Regular data collection, monitoring, and analysis related to health provide access to a renewable and sustainable supply of electricity, access to safe drinking water, adequate sanitation, basic health care services, educational and livelihood opportunities for all village residents and households

CONCLUSION

The environment ministry's committee that looks into appraisal of all industry sector projects has called on every project proponent to adopt a village in impacted areas and convert it into a 'model village in an attempt to get industry to participate in stronger and environmentally relevant CSR initiatives. It has also said that 2.5% of project capital cost should be earmarked towards environmental conservation. While some corporate houses already adopt villages in project-impacted areas or help bring in development measures, the Modi government has been pushing almost all stakeholders towards greater public participation and social commitment and especially village adoption schemes. Governance with accountability, transparency and

innovation - 'GATI' will lead the country to the path of development by overcoming the country's challenges towards building Smart Villages and put the Country in Progressive Path.

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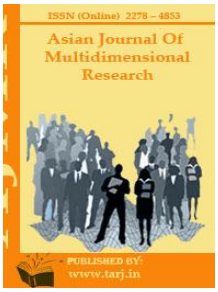

Asian Journal of Multidimensional Research (AJMR)

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CONSUMPTION PATTERN OF TRADITIONAL AND NON – TRADITIONAL RICE CONSUMERS AND THEIR HEALTH STATUS

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ABSTRACT

The production of rice in the world has increased in a faster rate than the world population. Rice is the staple food for both the traditional rice consumers and nontraditional consumers. Minimum of 8 percent included wheat to manage the problem of diabetes and obesity. The traditional rice is more suitable for the preparation of pongal; as it gives a very good taste when mixed with the other ingredients mainly pulse. The health disorders namely diabetes and hypertension were higher among nontraditional rice consumers. Traditional rice is a medicinal embedded food. Medicinal properties are also attributed to this rice include revitalizing and energizing the body, lowering bad cholesterol levels and controlling blood sugar levels. This is due to the fact that the whole grain contains all three components: bran, germ and endosperm. Conversely, when grain is processed, all that is left is the endosperm. Three different rice varieties namely the traditional rice mapula samba and kavuni and the nontraditional ponni rice were selected for nutrient analysis and standard procedures were followed to analyze the proximate principals and fiber. It is found that almost all consumers in both the categories were doing some type of exercise, where traditional rice consumers were more involved in doing exercise than nontraditional rice consumers.

KEYWORDS: *"Traditional Rice", Consumption, Nutrients, Fluctuations, Immeasurable.*

INTRODUCTION

Rice is considered as an important food in the Asian continent. In India's population half of them consume rice as their staple food. In each and every country rice becomes the main source of food. Rice becomes the second largest crop after the consumption of wheat in India. Studies revealed that the consumption of traditional rice was declining though it contains abundant of nutrients and health benefits. Although rice has the second place because of planted area but it serves as the most important food source for Asian countries mainly in south-east parts where it is an economic crop for farmers and workers who grow it on millions of hectares throughout the region. Historically, rice was cultivated l0000 years ago in the river valleys of South and Southeast Asia and China since it served as the most important food for people. Although Asia is the main place of rice cultivation but it was harvested in other continents like Latin America, Europe, some parts of Africa and even USA (Gomez, 2001 and Gnanamanickam, 2009).

The production of rice in the world has increased in a faster rate than the world population. Over the last three decades despite the fact that rice is produced by mainly small, marginal that too tenant farmers. Rice price at, world level has shown a declining trend over last fifty years. But, in Asian countries, over the years, the price of rice has increased with inter-year fluctuations and intra seasonality. Rice (*Oryza sativa*) is the staple food for nearly two third's world population. It has reported 75 percent of daily calorie intake of the people in Asian countries derived from rice (Wymn, 2008).

In Tamilnadu, since ancient times rice was cultivated predominantly the districts of Thanjavur, Trichy, North Arcot and Chengalpet. About 100 varieties were available in Ramanathapuram alone (Pillaiyar et al, 1993). The traditional rice varieties of Tamilnadu were identified with different names and physical characters of whole grains. The first type of rice is named as Gundu because it is bold as it is, mookam it is because the nose of it; big rice can be defined as periya and Peru; bent rice is termed as Kona; small can be defined as siru or sinna; then if it is short it is named as kuru or short; then lastly the round can be defined as vallai or vala (Nujiten etal, 2008).

Traditional rice is a medicinal embedded food. Medicinal properties are also attributed to this rice include revitalizing and energizing the body, lowering bad cholesterol levels and controlling blood sugar levels. Red rice varieties have antioxidant properties and have a higher content of zinc and iron than white rice (Krishnamurthy, 1991). Important health benefits of traditional rice include its ability to improve health status, stimulate growth and repair throughout the body, slows the signs of aging, products against chronic diseases, prevents the onset of diabetes optimizes the digestive process, strengthens your bones, boosts your immune system and helps with weight loss efforts (Umadev et al, 2012).

Several biotechnological approaches are adopted to increase quality and quantity of rice as well as its resistance to pests, diseases and environmental stresses. Brown rice is therefore higher in B vitamins than raw milled rice. The health benefits of brown rice are immeasurable. Brown rice is a whole grain meaning it contains a large amount of fiber. This is due to the fact that the whole grain contains all three components: bran, germ and endosperm. Conversely, when grain is processed, all that is left is the endosperm. When the endosperm is left intact, it generates all of the proteins; the bran contains approximately 80 percent of minerals; and the germ contains vitamin E. The complete milling and polishing that converts brown rice into white rice destroys 67 percent of the vitamin B3, 80 percent of the vitamin B1, 90 percent of the vitamin B6, half of the manganese, half of the phosphorus, 60 percent of the iron and all of the dietary fiber and

essential fatty acids. Keeping these in mind the present study has been undertaken with the **broad objective** to understand the consumption pattern of rice varieties and the health status of rice eaters.

The **specific objectives** are focused on to: Study the commonly used variety of "Traditional Rice", estimate the proximate principles of traditional and nontraditional rice and find out the health status of the consumers using traditional rice and nontraditional rice.

METHODOLOGY

The study was conducted in two districts namely Coimbatore and Thanjavur. Two places namely Saibaba colony and Ramalingam colony in Coimbatore district and in Thanjavur, Maharnomchavadi and Thokappiyar Sathukam were selected by convenience sampling method for the study. A total of 200 rice consumers, 100 each from traditional and nontraditional categories were selected for the study. Both male and female consumers in the age group of 30 to 60 years were selected.

An interview schedule was formulated to collect details of the consumers regarding background information, life style pattern, consumption pattern, and health status. Three different rice varieties namely the traditional rice mapula samba and kavuni and the nontraditional ponni rice were selected for nutrient analysis and standard procedures were followed to analyze the proximate principals and fiber.

FINDINGS

BACKGROUND INFORMATION

The market survey conducted revealed that traditional rice like karudan samba, varapukudainjan, seerga samba, kullankar, kappakar, vadan samba, and non-traditional variety like ponni and IR20 are available in the organic shops selected. Colour of rice varieties were observed in which Kavuni the traditional rice variety had a black colour, mapula samba had a reddish brown colour, but the nontraditional variety like ponni rice had a white colour due to polishing in the milling process. Among the selected consumers 16.5 percent in traditional and 17 percent of nontraditional rice consumer category belonged to 40 to 50 years age group. Education status of the selected consumers revealed that 14.5 percent of traditional rice consumers and 10 percent of Nontraditional rice consumers were degree holders. Postgraduates were more in traditional rice consumers than in nontraditional rice consumer. Working group consumers were identified as 57.5 percent and the remaining 42.5 percent were nonworking category. Unemployed consumers in the category of traditional rice consumers were high when compared to nontraditional rice consumers.

Annual income of the selected consumers revealed that majority of the consumers earned an income from four lakhs to six lakhs (27.5%). Only 20.5 percent of the consumers belonged to high income group Rs.7, 00,000- 9, 00,000. In both categories the main form of exercise was walking. Only 16.5 percent and 11.5 percent of the consumers practiced cycling and yoga. It is found that almost all consumers in both the categories were doing some type of exercise, where traditional rice consumers were more involved in doing exercise than nontraditional rice consumers.

Consumption pattern of the selected traditional rice nontraditional rice consumers

It is evident that two meal pattern was more commonly followed by 36 percent of the consumers. Three meal patterns were noted among 24 percent which is followed by four meals by 13 percent. It is surprising to observe that 27 per cent of both traditional and nontraditional rice consumers had only one meal.

Rice is the staple food for both the traditional rice consumers and nontraditional consumers. Minimum of 8 percent included wheat to manage the problem of diabetes and obesity. Among the three traditional rice varieties kavuni was consumed by 18 percent of the consumers, where as in nontraditional consumers only ponni rice was consumed more.

In method of cooking, pressure cooking was predominantly followed by both the traditional rice (20%) and Nontraditional rice consumers (40.5%). Boiling and straining method was practiced by 13 percent of traditional rice consumers and 20 percent of nontraditional consumers. Steaming method of cooking rice was done for the other varieties of recipes.

Among the recipes prepared from traditional rice pongal was more frequently prepared and consumed by 27.5 percent than the other recipes. Next to pongal the prepartation of mixed rice porridge was consumed frequently. The traditional rice is more suitable for the preparation of pongal, as it gives a very good taste when mixed with the other ingredients mainly pulse.

Awareness of nutrient content of rice varieties

The awareness among the consumers about the nutrients present in traditional rice revealed that 16 percent of traditional rice consumers and 12 percent of nontraditional rice consumers knew the presence of protein in traditional rice variety. The consumers also had the knowledge that rice is also a good source of carbohydrate, calcium and fibre

Maximum of 40 percent consumers had the awareness of presence of carbohydrate in the nontraditional rice variety. Next, the consumers also aware that ponni rice also contain protein followed by calcium and fibre.

Among the advantages of traditional rice consumption taste was the first criteria to include the rice in their daily meal pattern. They also expressed that all the three characteristics namely nutritious, health benefits and taste were essential for good quality rice.

The foremost advantage of consuming nontraditional rice (28.5%) was that it is easy to cook. Followed by this appearance and taste were additional advantages of the nontraditional rice.

Nutrient content of three varieties of rice.

Nutrient analysis was done for traditional and nontraditional rice variety and the results are given in Table1.

TABLE 1
NUTRIENT CONTENT OF TRADITIONAL RICE AND NONTRADITIONAL RICE

S.No	Nutrients	Mapula samba	Kavuni	Ponni
1	Energy	363.44	369.49	370.15
2	Carbohydrate	77.51	71.42	82.96
3	Protein	9.03	9.35	9.06

4	Fat	1.92	2.49	0.23
5	Calcium	33.63	39.22	31.60

The nutrient analysis revealed that the kavuni traditional rice variety had more protein (9.35g), fat (2.49g) and calcium (39.22 mg) content compared to ponni and mapula samba rice variety. It is also shown that the energy and carbohydrate values are higher in nontraditional ponni variety compared to traditional rice variety.

Health status of selected Rice Consumers

Most of the male and female consumers were extremely underweight which was found among 24.5 percent in both the consumers' category. Prevalence of obesity among 8 percent of males and females non – traditional rice consumers were more compared to traditional rice consumers. Minimum of 8.5 and 16.5 percent of traditional and nontraditional rice consumers respectively had a normal body mass index.

The waist hip ratio of the selected consumers showed that 35 percent of males in traditional rice consumers and 2.5 percent of males in nontraditional rice consumers registered normal waist hip ratio. Among both traditional and nontraditional rice consumers only 7 percent females were in obese category.

All the selected subjects had one or the other health problems as depicted in Table 2.

TABLE 2 PREVALENCE OF HEALTH DISORDERS AMONG THE SELECTED CONSUMERS

Health Disorders	**Traditional rice consumers (n=100)**				**Nontraditional rice consumers (n=100)**				**Total**	**Percent**
	Male	%	Female	%	Male	%	Female	%		
Diabetes	12	6	15	7.5	6	3	22	11	55	27.5
Osteoporosis	-	-	11	5.5	2	1	7	3.5	20	10
Renal failure	4	2	3	1.5	-	-	8	4	15	7.5
Hypertension	0	0	14	7	12	6	20	10	46	23
Heart disease	2	1	7	3.5	-	-	4	2	13	6.5
Dental problem	4	2	12	6	2	1	15	7.5	33	16.5
Vision problem	2	1	9	4.5	-	-	2	1	13	6.5
Any other	-	-	5	2.5	-	-	-	-	5	2.5
Total	24	12	76	38	22	11	78	39	200	100

Diabetes was the most predominant health disorder (27.5%) compared to other problems. Complication that ranked second was hypertension out of the 200 consumers. It is clear that 16(32) percent of nontraditional rice consumers had hypertension. Among traditional rice

consumers only 7 percent of female reported to be hypertensive. The dental caries and vision problems were next in line among the traditional and nontraditional rice consumers.

It is observed that in traditional rice consumer's category 16.5 percent of them followed ayurvedic treatment whereas 16 percent preferred allopathic treatment. Among nontraditional consumers category 21.5 percent of the consumers followed allopathic treatment as against 15.5 percent who followed ayurvedic treatment. All the other type of treatments like Siddha, naturopathy and others were taken up on a minority basis by both the categories.

CONCLUSION

It can be concluded that in nontraditional rice consumers overweight and obesity was seen more than the traditional rice consumers. The health disorders namely diabetes and hypertension were higher among nontraditional rice consumers. The nutrient analysis revealed that the traditional kavuni rice variety is rich source of protein and calcium compared to other traditional mapula samba and nontraditional selected ponni rice varieties.

FUTURE STUDIES:

- In depth studies can be undertaken to find out the effectiveness of exclusive consumption of traditional rice varieties.
- The nutritional contribution of the unexploited traditional rice need to be estimated and can be compared with the nontraditional rice varieties.

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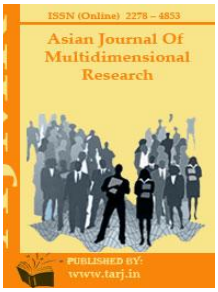

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ENVIRONMENTAL ISSUES AND DEVELOPMENT: CLEAN INDIA MOVEMENT

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ABSTRACT

The rapid economic growth experienced by India over the past decade and a half has come with some unwelcome consequences. The rapid industrialization and economic growth has resulted in unhealthy air and water pollution affecting infant mortality rates and life expectancy rates (Striessing, Schbpp, and Amann, 2013). Using extensive secondary research, this paper suggests a series of steps to educate people about the government measure towards cleanliness and how that binds with the economical and financial status of India. The cornerstone of the prescription for improvements in the environment is a collaborative arrangement that brings together the various government agencies, the citizens, SMEs, large domestic companies, and NGOs to participate in a collaborative arrangement to educate, streamline effective policies, develop the necessary institutional infrastructure, and provide adequate funding for improving the environment which now Swacch Bharat Abhiyan has been trying to do from 2014. In addition, traditional agricultural practices contribute conjointly to the decimation of the subcontinent's environmental system.

KEYWORDS: *Domestic Companies, Industrialization, Unhealthy, Consequences.*

INTRODUCTION

'You must be the change you wish to see in the world.'

-Mahatma Gandhi

The economy of India is a developing mixed economy. It is the world's sixth largest economy by nominal GDP and the third-largest by purchasing power parity (PPP). The country ranks 141st in per capita GDP (nominal) with $1723 and 123rd in per capita GDP (PPP) with $6,616 as of 2016. After the economic liberalization 1991, India achieved 6-7% average GDP growth annually. In the FY 2015 and 2017, India's economy became the world's fastest growing major economy surpassing China.

But environmental sustainability could become the major challenge as India surges along its projected growth trajectory and the country needs to strike a balance where the benefits ofurbanization are maximized without compromising the environmental benchmarks. Environmental issues are harmful effects of human activity on the biophysical environment. Environmental protection is a practice of protecting the natural environment on individual, organizational or governmental levels, for the benefit of both the environment and humans. Environmentalism, a social and environmental movement, addresses environmental issues through advocacy, education and activism.

ENVIRONMETAL ISSUES IN INDIA

The environmental issues in India become more grim every day as the country is turning into a bit of a mess on this front but with a serious lack of education and over one billion people, a huge amount of which are in dire poverty, it's hardly surprising. The recent boom in its industries, little or no environmental education and the infrastructure are nearly at the bursting point, not to mention the huge deforestation that's going on. A whopping 65% of the land in here is degraded in some way, shape or form and the endless government policies do little to curb the damage. In fact, there is no shortage at all of government legislation protecting the environment but unfortunately it is never enforced due to flagrant abuse of power, corruption and lack of resources. Tourist centers such as Goa suffer due to badly managed development and excessive tourism, again resulting from the lack of legislation and policy enforcement.

The reasons for this disconnect between enlightened environmental laws and high levels of pollution could be traced to lax enforcement of existing environmental laws, discrepancies in the environmental guidelines for businesses to follow between the central government and at the state levels, and the existence of a large number of SMEs who neither have the resources nor the technical skills to adhere to the existing environmental laws. India's major challenges are directly attributable to its extremely high population density, especially the rise in urban centers. Urban India is growing rapidly in terms of population size. The increase in number of large cities with a million plus population is adding to the environmental problems faced by the country. In addition, traditional agricultural practices contribute conjointly to the decimation of the subcontinent's environmental system.

India's litter problem is totally disturbing. All around the globe, the world is taking a note of India's economic growth. The country has made tremendous progress over the last 10-15 years. As an Indian, it is something to be proud of, to be very proud. We can be a rich nation, we can be a prosperous bunch, but we are not very environment friendly. Littering is socially accepted in India – nobody minds, no one cares! However, along the way, what we really need is a change in

our mentality to care for our environment, to care for our own surroundings. Also open defecation, besides being truly unhygienic for populations in general; it is also a forerunner of disease.

SWACCH BHARAT ABHIYAN

Swacch Bharat Abhiyan or **Clean India Campaign** is one of the most ambitious projects from the Government of India and PM NarendraModi. He officially announced the Swacch Bharat Abhiyan on 2nd October 2014 on the occasion of Mahatma Gandhi Jayanti. This is one of its kinds of campaign that got national level attention. A major goal of this campaign is to make all cities and villages of India "Open Defecation Free". Along with it, Swacch Bharat Abhiyan aims to clean the roads, streets, and infrastructure across India. The Swachh Bharat project is divided into two categories- Swachh Bharat Mission (Gramin) and Swachh Bharat Mission (Urban).

Mahatma Gandhi once said 'Everyone must be his own scavenger'. It is this quality that we seem to lack the most. One of the best public examples of being your own scavenger was when Japanese fans cleaned up the stadium during the 2014 FIFA World Cup, following their side's 0-0 draw with Greece. We on the other hand expect a third party to be the scavenger. Of course, we are happy to pay scavengers to clean up the dirt that we create. But somehow being one's own scavenger is a mindset and an attitude.

SWACCH BHARAT AND INDIAN ECONOMY

A UN report in May had said that currently, nearly 60 percent of India's population practices open defecation which puts them at risk of diseases. Unhygienic condition is one of the major causes of diseases. According to the study by World Health Organization (WHO), due to lack of cleanliness and hygienic conditions, there is a loss of Rs.6500 every year to each Indian. Swacch Bharat mission tries to plug this loss and help to ease the burden on existing health care facilities which will help to boost our Indian economy.

India also face economic loss because of poor hygiene and sanitation in the country as a World Bank report in 2006 said that India losses 6.4 percent of GDP annually because of the aforementioned reason. If India and its tourist destinations are clean, it will bring more people and will also bring about a paradigm shift in the country's global perception. If proper hygiene and sanitation will not become a practice in our country then no one will be able to save the country from the health hazards and losses that will loom over the Indian populace in the near future.

SWACHH BHARAT CESS

It is a Cess which shall be levied and collected in accordance with the provisions of **Chapter VIof the Finance Act 2015**, called Swacch Bharat Cess, as service tax on all the taxable services for the purposes of financing and promoting those initiatives.

Swacch Bharat Cess is introduced to achieve the following objectives:

1. To Change people's attitude and create awareness among people towards the importance of cleanliness and good sanitation system.

2. To introduce, modern and scientific municipal solid waste management practices.

3. For the betterment of the Indian economy.

4. To develop rural areas by developing the sanitation system.

5. To prevent diseases like Diarrhea, Cholera etc.

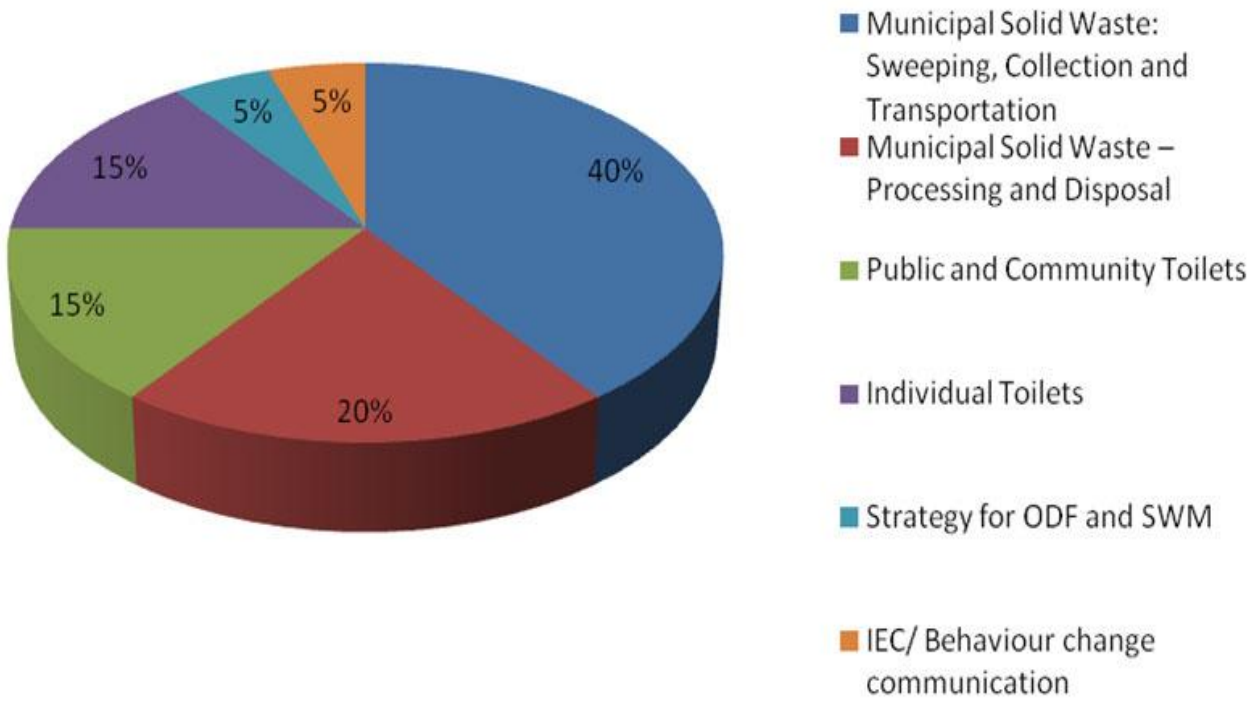
6. Eradicate manual scavenging.

7. To construct toilets for community and houses to eliminate open defection

SWACCH SURVEKSHAN 2017

Swacch Survekshan 2017 was an extensive sanitation survey across 500 cities in India. The Ministry of Urban Development commissioned a Quality Council of India to conduct this survey to check the progress and impact of Swachh Bharat Abhiyan launched in 2014. It aims to foster a spirit of competition among the cities and offers a comprehensive assessment of their sanitation status.

The performance of each city was evaluated **on six key thematic parameters**:



Mysore, Chandigarh and Tiruchirapalli have emerged as the three cleanest cities in India, according to the "SwachhSurvekshan 2016", a survey conducted under the Union Ministry of Urban Development (MoUD).

In 2017, the list after the massive survey of SwachhSurvekshan which was based on rating the cleanliness efforts put in by the municipalities in 500 Indian cities:

The sample survey conducted by Quality Council of India (QCI) covering 4,626 villages and 1.4 lakh households between May and June 2017 has decimated the myth that people don't use toilets after building them. Launching the report drinking water and sanitation minister Narendra Singh Tomar told that the toilet coverage has increased to 66.3% from only 38.7% in October 2014 when Swachh Bharat Mission was launched. He added government would achieve the target of making the entire country open defecation free (ODF) by October 2019.

The survey shows how the government needs to fix the problem in Uttar Pradesh, Bihar, Odisha and Jharkhand, which have more than 50% share of households that still do not have toilets.

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BEST & WORST

BEST 5 IN SWACHH PARAMETERS

State	Toilet coverage (%)	Toilet usage (%)
Kerala, Haryana	99	99, 100
Sikkim	97	99
Manipur	96	100
Nagaland	95	100
Uttarakhand	93	99

WORST 5 IN SWACHH PARAMETERS

State	Toilet coverage (%)	Toilet usage (%)
Bihar	30	87
UP, Jharkhand	37	87, 65
Odisha	40	80
J&K	41	94
Puducherry	43	91

Swachh Survekshan (Gramin) 2017

TARGET AND ACHIEVEMENT

On September 06, 2017 the government took to twitter and published a five year report on the overall sanitation coverage in India. India's sanitation coverage in 2012 was merely 38% which has currently increased to 60.53% under the Swachh Bharat Mission.

Our Prime Minister termed the problem of open defecation as one of the major challenges to sanitation. Since 2014 more than 1, 80,000 villages, 130 districts and **three states**- Sikkim, Himachal Pradesh and Kerala have been declared **Open Defecation Free (ODF)**.

The Government aimed to declare five more states- Gujarat, Haryana, Punjab, Mizoram and Uttarakhand ODF by end of this year.

CONCLUSION

The rapid economic growth experienced by India is resulting in adverse and harmful environmental conditions that are affecting the people of India as well the wider global population. In the case of India, this is further exacerbated by the high population density and growth rates. The existing environmental laws, although cover a wide spectrum of environmental concerns, they seem to be ineffective due to lack of enforcement, the lack of resources, and technical challenges faced by a large number of Indian companies, especially the SMEs. Under these conditions, India has to adopt some sustainable actions that need to address the myriad issues facing the country including environmental degradation in order to sustain its prospects for continued economic growth (Ranganath, 2015).

Unlike earlier sanitation programmes, SBA is not a toilet construction programme but a behavior change mass movement. It is relatively easy to build a road, bridge or an airport. But trying to change human behavior is complex. Cleanliness is a mindset. It is an attitude. To disrupt the current attitude of cleanliness and hygiene in India is indeed a challenge, since it is a habit that has gone uncorrected for decades. The Swacch Bharat Ranking of capital cities is adequate proof that cleanliness is not a function of economic development but rather a mental attitude. And that attitude needs to change if India has to keep up with the rest of the world, and if Indians need to feel proud of them in the global context.

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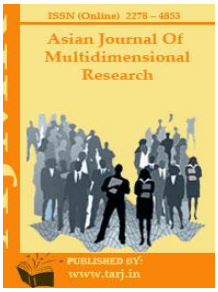

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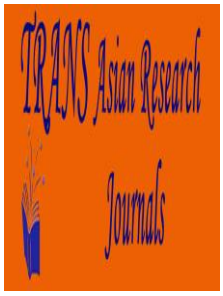

ERUDITION ON SOLID WASTE MANAGEMENT IN COIMBATORE CORPORATION AREA

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ABSTRACT

The paper analyses the details of solid waste management in Coimbatore Corporation. Coimbatore is one of the most industrialized cities in Tamil Nadu and second largest city in terms of population in the state. Coimbatore district ranked seventh place among the highest population among the districts. Solid waste is an integral part of modern society. Human activities create solid waste and it is required to store, collect and dispose. Solid waste is not properly disposed and collected then it leads to environmental degradation in the society. Solid waste management is the responsibility of local government and corporation authorities in selected areas. The paper focussed on types and sources of solid waste, collection process and amount of waste generated in the particular corporation. The study is based on secondary data collected from different published sources. Even though the role of private sector active participation was very less in the past decades, now a fruitful involvement is being taken care in managing the waste handling techniques. The easiest way to reduce the problems of solid waste is user fee chargers or polluters must pay principle should be dynamically applied.

KEYWORDS: *Sources, Details and categorise of solid waste management*

INTRODUCTION

Rapid industrialisation and population explosion in India has led to the migration of people from villages to cities, which generate thousands of tons of solid waste daily. Any discarded material which comes from domestics, commercial and industrial sources and which can be used as a valuable raw material is called solid waste. Solid waste can be defined as material that no longer has any value to the person who is responsible for it, and is not intended to be discharged through the pipe. It is generated by domestic, commercial, industrial, health care, agricultural and mineral extraction activities and accumulates in streets and public places. The words garbage, trash, refuse and rubbish are used to refer to some forms of solid waste. Solid waste is a term usually applied to a heterogeneous collection of wastes produced in urban areas, the nature of which varies from region to region. The characteristics and quantity of the solid waste generated in a region is not only a function of the living standard and life style of the region's inhabitants but also of the abundance and type of the resources. Improper solid waste management is one of the major causes of environmental degradation and cause hazards to human being and environment.

SIGNIFICANCE OF THE STUDY

The solid waste amount is expected to increase significantly in the near future as the country strives to attain an industrialized status by the year 2020. Solid Waste refers to all non- liquid wastes which are usually being dumped in landfills. Landfills are large pits in the ground that act as garbage disposal places. The ranges of garbage take place from human activities and animals that are discarded as unwanted and useless. Human and animal activities generate different kinds of waste. These wastes are generally in solid form, may cause pollution of land, water and air unless treated and disposed off. Solid waste is a significant and growing problem in many urban areas of the developing world. Current systems of waste management in most developing countries are very rudimentary at best and are grossly inefficient and ineffective. In the last few decades there has been a significant increase in Municipal Solid Waste (MSW) generation in India. This is largely because of rapid population growth and economic development in the country. India is the second most populous nation on the planet. The population of urban India was 377 million (Census of India, 2011) which accounts for 31 per cent of the total population. The population residing in urban regions increased from 18 to 31.2 per cent from 1961 to 2011 respectively (Census of India, 2011). Indian population increased by more than 181 million during 2001-2011. As waste generation increases day to day due to varying population pattern, both developed and developing nations are looking out for new solutions to manage waste. Population growth and solid waste generation in India has varying trend. India alone generate more than 1, 00,000 metric tonnes of solid waste every day, which is higher than many countries, total daily waste generation. Large metropolis such as Mumbai and Delhi generate around 9000 metric tonnes and 8300 metric tonne of waste per day respectively, (Times of India, March 30, 2017). The increase in population has a negative outcome on the environment. Planning commission report (2014) reveals that 377 million people residing in urban area generate 62 million tons of MSW per annum currently and it is projected that by 2031 these urban centres will generate 165 million tons of waste annually and by 2050 it could reach 436 million tons.

REVIEW OF LITERATURE

HAMSAIYER (2016) stated the Mumbai Metro Region (MMR), spread over 4355 sq.km is home to seven municipal corporations. All municipal corporations in India are mandated to look

into solid waste management in their functional domains under the 74th constitutional amendment.

KOYACHEW ENKUAHONE KASSIE (2016) focused the problem of SWM and its implications to health and environment problems had become increasing in Bihar. The household dispose their waste like they did in the past and they are not fully aware about now waste should appropriately be disposed of. The study was recommended that government should strengthen the private sectors to participate in SWM service.

SUSHOVAN SARKAR & DEBABRATA MAZUMDER (2015) depicted that dumping of solid waste in open space and excavated land creates environmental pollution in the form of dusts and leach apart from huge financial liability. Available land was also scarce now-a-days for dumping the solid waste due to alarming growth in human population. The extent of solid waste reduction and reuse and restoration to make a zero waste generation was really a challenge to the steel industry today.

GANESHWARAN & DEEPA SHRI (2015) pointed out that rapid industrialisation and population explosion in India has led to the migration of people from villages to cities, which generate thousands of tons of MSW daily. Municipal Solid Waste Management (MSWM) is one of the major environmental problems of Indian cities. Domestic, commercial, biomedical and variety of toxic and domestic hazardous wastes are generally disposed of by the citizens on the streets, drains, open spaces, water bodies and so on causing serious environmental problems and even health impact.

PARVATHAMMA (2014) stated that solid waste was the unwanted or useless solid materials generated from combined residential, industrial and commercial activities in a given area. One of the most pressing environmental issues facing the world today was the issue of waste management and disposal.

VIJAY KUMAR &PANDIT (2013) analysed the problems of solid waste management in Indian cities. The solid waste management involves, management at waste generation level, storage at the source of generation, primary collection, street cleansing and so on. The per capita solid waste generation in few Indian cities like Delhi 0.60kg per capita per day, Hyderabad 0.35 kg per capita per day and so on. The amount of solid waste generation is also directly related to the economic status of the families.

BACKGROUND OF THE STUDY

Solid waste management is all the activities and actions required to manage waste from its inception to its final disposal. Waste management process is not uniform among sectors, regions and countries. This clearly indicates that the growth in MSW in our urban centres has outpaced the population growth in recent years. Municipal Solid Waste is a priority area of concern. MSW represent a valuable source of resources, such as materials and energy. At the same time it is also a source of pollution and land degradation when treated inappropriately. It has significant impact on human health. Uncontrolled landfill disposal of solid waste is a pervasive problem which causes a range of external costs, including human health hazards. As the role of government involved in the management and handling of waste became challenging with several events of disaster and epidemic situations in the country, the rules and regulations related to the management of these wastes were amended, thus resulting in greater roles being played by the authorities. Therefore to bring the effort and as a duty to look our countries welfare the private

sector participation plays a vital role. Even though the role of private sector active participation was very less in the past decades, now a fruitful involvement is being taken care in managing the waste handling techniques.

Tamil Nadu, with the population of about 72.14 million (Census, 2011a), it accounts for close to 6 per cent of India's population. Tamil Nadu, registered an increase in its decadal growth rate from 11.63 per cent during 1991-2001 to 15.60 per cent during 2001-2011, which is however lower than the India values. Tamil Nadu is the sixth most densely populated state in India as per both 2001 and 2011 Census. In Tamil Nadu, a total of 14,727 tonnes of municipal solid waste is generated per day, of which 57 per cent is generated by the 12 corporations, 23 per cent by the 123 municipalities and 20 per cent by the town Panchayat. The total MSW generated in the municipalities and the town Panchayat were 3207 and 2842 tons/day, respectively. Contribution of different sources to MSW generated was town Panchayat 20 per cent, municipalities 23 per cent and corporations 57 percent (TNPCB Annual Report 2013-14).

METHODOLOGY

The urban population in the Coimbatore district was 76 per cent. The district decadal population growth during 2001-2011 was 18.6 per cent, higher than the state average of 15.6 per cent (Census of India of 2011). Coimbatore city generates 530 tonnes of waste per day of which 50 per cent was compostable and 15.52 cent was recyclable (JNNURM, 2017). This study is based on secondary data collected from different published sources. In this, background the study has to analyse solid waste management in Coimbatore Corporation.

Coimbatore District Profile

Coimbatore district is situated in the western part of the State of Tamil Nadu and is the district head quarter. It is well known for its textile industry and has excellent potential for industrial growth. The city enjoys excellent climate throughout the year because of its proximity to the hills of the Western Ghats. Coimbatore City was constituted as a Municipality in November 1866 with a population of 24,000 covering an extent of 10.88 Km2. Coimbatore City's status was elevated as a Municipal Corporation in May 1st 1981. Coimbatore is known as the Manchester of Tamil Nadu. The geographical area of the city is between: North Latitude between 11°00'58" and 11°01'61" East Longitude between 76°58'16" and 76°09'71". The city is governed by Coimbatore Local Planning Authority. The Coimbatore Corporation is responsible for the supply of water in the city. The city is divided into five zones namely Central, North, South, East and West.

FIGURE: 1 SELECTED STUDY AREA

TABLE- 1

North Zone	East Zone	South Zone	West Zone	Central Zone	Total wards
20	20	20	20	20	100

THE DETAILS OF ZONE WISE WARDS IN COIMBATORE

Coimbatore Corporation has divided into five zones North, East, South, West and Central. Each zones has 20 wards, totally the Corporation have 100 wards with five zones.

TABLE- 2
TALUK DETAILS OF THE COIMBATORE DISTRICT: CENSUS 2011

S.No	Name of taluk	Total area in ha	Taluk head quarters
1	Coimbatore North	88437	Coimbatore
2	Coimbatore South	32401	Coimbatore
3	Mettupalayam	64545	Mettupalayam
4	Pollachi	116551	Pollachi
5	Sulur	58496	Sulur
6	Valparai	66964	Valparai
7	Coimbatore Corporation	10560	-
8	Pollachi Municipality	1386	-
9	Mettupalayam Municipality	720	-

Source: District Statistics Office, Census 2011

The table 2 shows that the Coimbatore District has been divided into nine Taluk's namely Coimbatore North, Coimbatore South, Mettupalayam, Pollachi, Sulur, Valparai, Coimbatore Corporation, Pollachi Municipality and Mettupalayam Municipality. The largest area is covered by Coimbatore North (8437 ha). The city of Coimbatore has experienced an enormous population explosion as a result of which the consumption pattern of its people has been experiencing drastic changes.

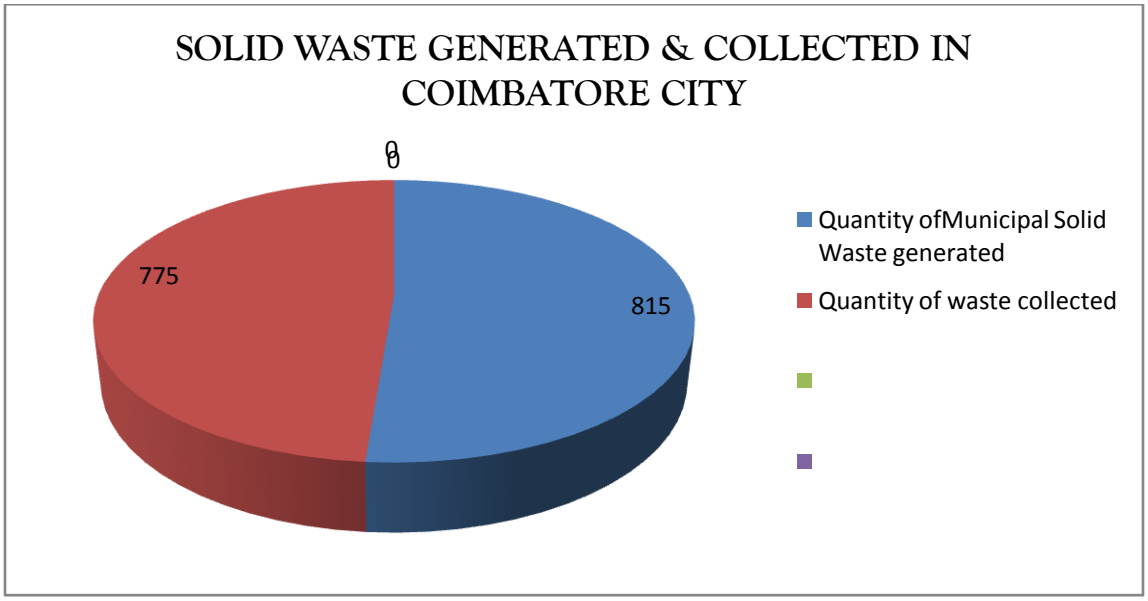
WASTE GENERATION

The city presently generates around 815 TPD of municipal solid waste (MSW) having an average generation rate of 600 gms/capita/day. The CCMC is in charge of the waste management in its 100 wards. CCMC collects around 775 TPD of MSW which accounts for almost 95% of collection efficiency.

TABLE- 3
THE DETAILS OF SOLID WASTE MANAGEMENT SYSTEM IN COIMBATORE CORPORATION

S.No	PARTICULARS	VALUES
1	Area of the City	257.36 Sq.Km
2	City's populationas per census 2011 (No's)	34,58,045
3	Quantity of MSW generated	815 TPD
4	Quantity of Waste Collected	775 TPD
5	Per capita waste generation	550 gms
6	Availability of Land for waste disposal	654.54 Acres
7	Total No. of Permanent Sanitary Workers	2635
8	Total No. of Contract Workers	965
9	No. of Vegetable Markets	20
10	No. of Fish Markets	01
11	No. of Hospitals/Nursing Homes	154

Source: Coimbatore City Report, 2013, TPD (Tonnes Per D ay)



FIGUR E: 2

The above figure (2), represent the quantity of MSW generated in tonnes per day (i.e) about 815 and quantity of waste collected tonnes per day is 775 which is depicted in the figure

TABLE- 4
GENERAL INFORMATION ON SOLID WASTE MANAGEMENT IN COIMBATORE CORPORATION

PARTICULARS	**DETAILS**
SOLID WASTE PER DAY	1000 Tonnes
TOTAL VEHICLES USED	16 Lakhs
PERMANAENT WORKERS	4500
TEMPORARY WORKERS	2500
TYPES OF WASTE GENERATION	
BIO-DEDRADABLE WASTE	45 %
Non-BIO-DEDRADABLE WASTE	50%
Plastic	3%
PAPER	1%
OTHERS	1%
TOTAL	100%
HEALTH AND HYGEINIC CARES FOR THE WORKERS	
SAFETY- GADGETS	2 Pairs per Labour
CLOVES	2 Pairs per Labour
MASK	1 Pair per Labour
REGULAR MEDICAL CAMP	Monthly Wise
NGO'S	RAAC
DUMPING YARD	ONE (646 Acres)
TOTAL DUSTBINS	5000 (5 Zones)

Sources: JNNURM, Coimbatore Corporation(2017-2018).

CATEGORIES OF SOLID WASTE

- DOMESTIC WASTE
- COMMERCIAL WASTE
- INSTITUTIONAL WASTE
- STREET SWEEPING
- BIO MEDICAL WASTE
- HAZARDOUS WASTE
- SEWAGE WASTE

TABLE- 5
CATEGORIES AND SOURCES OF SOLID WASTE

Domestic waste	Household waste-kitchen, house cleaning, old papers, bottles, furnishing Materials, garden trimming and so on.
Commercial waste	Waste generated at business premises, shops, offices, markets, departmental stores etc.,
Institutional waste	Schools, colleges, hospitals, hotels and restaurants, community halls etc.,
Street sweeping	Unconcerned throwing, littering made by pedestrian traffic, vehicular traffic, stray animals, roadside street leaves, rubbish from drain cleaning and so on.
Bio medical waste	Animal waste such as animal tissue, organs, and body parts, waste generated by veterinary hospitals, colleges, discharges from hospitals, animal houses and micro biology/ bio technology laboratories and so on.
Hazardous waste	Waste with properties that make it dangerous or potentially harmful to human health or the environment. Some other waste are batteries, cleaning fluids, pesticides etc.,
Sewage waste	Sewage is the liquid waste containing some solids produced by human, which is typically consists of washing water, urine, laundry waste and other materials.

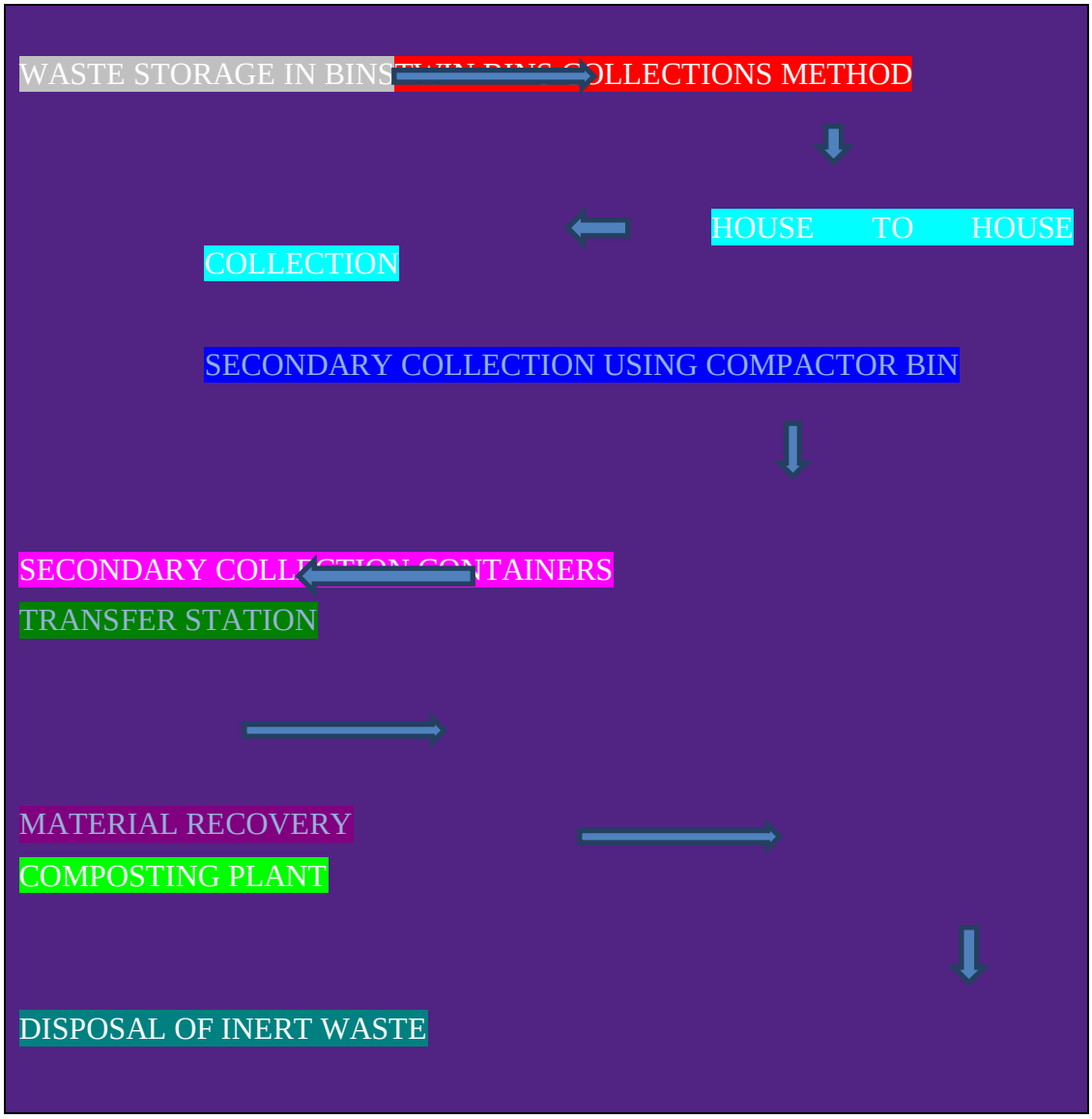
SOLID WASTE MANAGEMENT SCENARIO IN COIMBATORE

- STORAGE OF WASTE
- SEGREGATION OF RECYCLABLE WASTE WAS HARDLY PRACTICED
- COLLECTION AT SOURCE
- STREET SWEEPING
- SECONDARY COLLECTION SYSTEM
- TREATMENT & DISPOSAL
- STATUS OF INFRASTRUCTURE

Waste storing practice was at low ebb. Almost 45% of the households and 80% of shops and establishments strew waste on the streets. Around 91% citizens did not segregate waste at source and about 44% of the households were covered under door-to-door collection service. In Coimbatore Corporation about 72% of the streets were swept regularly almost 85% of waste storage depots were open rendering it unhygienic. Practically 91% of waste was being collected on a day-to-day basis. However, about 46% of the waste generated was transported in open vehicles. The waste treatment and disposal practice was pathetic. CCMC lacked in having any system for treatment or scientific disposal of waste. A small treatment plant, set-up and operated by a private company, catered to only 3% of the city's waste. Hence, majority of the waste was left untreated and disposed off unscientifically. The pressing need thereby arose for improving the management of the existing Municipal SWM system in the city. CCMC was managing waste

handling with the help of containerized hand carts, single bin lifters, refuse collector lorries and tipper Lorries.

THE DETAILS OF WASTE MANAGEMENT CYCLE IN FLOWCHART IN COIMBATORE CORPORATION (2016-17)



Source: Coimbatore Corporation Report,(2016-2017).

The above stated flowchart gives the information about the cycle of solid waste management process in Coimbatore Corporation. The waste has been stored in bins separately and the waste is collected in their door steps by the workers to the secondary collection using compactor bins then to the containers for transfer station for material recovery towards composting, finally the waste is being disposal of inert waste.

SUGGESTIONS

- Segregation of waste should strengthen strongly.
- Waste related awareness is still needed to minimise the waste generation.

- ❖ Modern tools and equipment for waste collection have to be increased by the corporation.
- ❖ Recycling and composting are important and public participation is highly needed in this case.

CONCLUSION

Solid waste management requires the concern of government, public, voluntary agencies, business, religious organisations, men, women, literate, the rich, the poor and host of other tangible and intangible groups. The study takes the initiatives to analyse the solid waste in Coimbatore Corporation Area with the help of secondary data source and other published facts and information. The easiest way to reduce the problems of solid waste is user fee chargers or polluters must pay principle should be dynamically applied.

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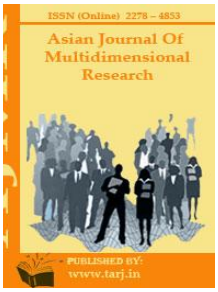

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DETERMINANTS ON CAPITAL STRUCTURE OF MULTINATIONAL COMPANIES

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ABSTRACT

Capital structure is the approach followed by a company to finance its long term operations and growth through debt and equity. Debt is the amount of money owed by the borrower for funds and equity represents the difference among the value of assets and liabilities. Capital structure is a measure adopted to evaluate the financial strength of a firm. The capital structure decision is one of the most important decisions made by financial management. Multinational corporations control considerable assets and some multinationals control more assets than others. Decisions about capital structure may have important implications with regard to shareholder wealth effects. This paper examines the determinants on Capital Structure of Multinational Companies during the period from 2008 to 2017. The study finds that the significant capital structure determinants are business risk and Non Debt Shield Tax. Successful firms need funds in every stage of expansion, including foreign expansion. This study aims to examine the Determinants on Capital Structure of Multinational Sample Firms. The regression result concludes that the significant impact of the determinants of the selected variables on capital structure of multinational companies.

KEYWORDS: *Capital structure, Multinational Companies and Regression Analysis.*

INTRODUCTION

Capital structure is the approach followed by a company to finance its long term operations and growth through debt and equity. Debt is the amount of money owed by the borrower for funds and equity represents the difference among the value of assets and liabilities. Capital structure is a measure adopted to evaluate the financial strength of a firm. The capital structure decision is one of the most important decisions made by financial management. The capital structure decision is at the centre of many other decisions in the area of corporate finance, like dividend policy, financing of mergers and acquisition, project financing, etc. One of the objectives of a corporate financial manager is to ensure the lower cost of capital and thus maximize the wealth of shareholders. Selection of an optimal capital structure is always a critical issue for every firm. Multinational Corporations (MNCs) play a considerable role in the economic development of many emerging markets including in India. Multinational corporations control considerable assets and some multinationals control more assets than that which is controlled by some countries. Decisions about capital structure may have important implications in regards to shareholder wealth effects. Successful firms need funds in every stage of expansion, including foreign expansion. This study aims to examine the Determinants on Capital Structure of Multinational Sample Firms.

REVIEW OF LITERATURE

Paolo M. Panteghini (2004) investigates the relation between debt policies of multinational companies (MNCs) and governments' tax strategies. In the first part, the ability to shift income from high- to low-tax countries affects MNCs' financial choices. In the second part it also show how MNCs' financial decisions can affect the tax strategies of two governments competing to attract income.

Mari Avarmaa, Aaro Hazak, Kadri Männasoo (2011) investigate the impact of major capital structure determinants of Domestic and Multinational companies (MNCs) operating in the Baltic States. The results indicate that MNCs operating in the Baltic States have had more flexibility in attracting external finance as well as in using internal (group) financing compared to their local counterparts.

Mohamad Albaity (2013) examine that the determinants of capital structure for internationalized manufacturing firms that were listed on Bursa Malaysia. The results showed that firm size and tangibility are significantly positively related with debt ratio while internationalization, profitability and company growth are significantly inversely related with debt ratio.

Abira Mohsin (2015) examined that determinants of capital structure of domestic and foreign companies large listed Norwegian and foreign public firms. The results reveal that for long-term debt ratio (LTD/TA), non-debt tax shield, inflation and exchange rate are the most significant determining factors for adopting a capital structure in both domestic and foreign firms. The results also show that for short-term debt ratio (STD/TA), non-debt tax shield again is a significant explanatory factor along with tangibility and exchange rate at a lesser scale. Domestic firms prefer short-term debt but foreign firms prefer long-term debt as a source of external financing.

Omar Farooq (2016) examines the leverage policies of multinational corporations (MNCs) in comparison to those of local Corporations in the MENA region. He found that the multinational

firms tend to have low debt ratios (as measured by total debt to total asset ratio and total debt to total equity ratio) than other firms. Result shows that there is no impact on the extent of information asymmetries on debt ratios of local firms.

Sashoarso and Aleksandar Naumoski (2016) examined that the determinants have significantly influenced the capital structure of the companies in the Balkan Countries. The study suggests that the governments of these countries should put more effort on stimulating the use of other sources of financing to relieve the possible excessive company dependence on the banking sector.

Shumi Akhtar, (2016) examines the significance of the determinants of capital structure on a sample of Australian Multinational Corporations and Australian Domestic Corporations. The results show that the level of leverage does not differ significantly between multinational and domestic corporations. Using cross-sectional Tobit regression analysis the results show substantial variation in capital structure determinants between multinational and domestic corporations.

The previous studies reviewed reveal the relationships of independent variables with debt and equity ratio. The results differ depending upon the measurement of independent variables. Thus the present study focuses to analyse the determinants of capital structure multinational firms.

STATEMENT OF THE PROBLEM

Some internal and external factors affect the capital structure of multinational firms, hence the study pertaining to these aspects regard to the determinants on capital structure of multinational firms debt and equity which are to be implemented in appropriate proportion to decrease the cost of capital which leads to increasing in growth level, profits earnings and maximize the value of the firms and the wealth of shareholders. This study helps to identify the financial position of the firms and helps in taking decisions for the betterment of the firms.

OBJECTIVES OF THE STUDY

- To analyse the relationship between the capital structure and its select determinants of Indian Multinational Companies.
- To analyse the impact of select variables on the capital structure of Indian Multinational Companies.

HYPOTHESES OF THE STUDY

- H_{01}: There is no significant relationship between the capital structure and its select determinants of Indian Multinational companies.
- H_{02}: There is no significant impact of select determinants on the capital structure of Indian Multinational Companies.

METHODOLOGY OF THE STUDY

The study investigates the capital structure of Indian based Multinational companies. NSE MNC Index was considered for data collection. Among these 15 Indian based Multinational Companies, the data was not available for 7 companies. Hence the remaining ten companies namely: ABB Ltd, Ambuja Cements Ltd, Bosch Ltd, Castrol India Ltd, Colgate Ltd, Britannia Ltd, HUL Ltd and Maruti Suzuki India Ltd constitute the sample. The study covers the period of 2008 -2017. Techniques used for the study were Descriptive statistics, Correlation and Multiple

Regression. The secondary data relating to the study was collected from the CMIE "PROWESS" Database.

LIMITATIONS OF THE STUDY

- The study mainly depended on secondary data available from different sources.
- The study period covers only 10 years from 2008 to 2017.
- This study included only the financial factors affecting capital structure. The non financial factors are not considered in the study.

ANALYSIS AND INTERPRETATION

Computation of Variables

The study considers Debt to Equity Ratio as the dependent variable which is computed by Total Liability/ Total Equity. The independent variable such as Business Risk which is computed using the formula: EBIT/ Total Sales, Non Debt Shield Tax which is computed using the formula: Depreciation/ Total Sales. Political Risk is computed using the formula: Profit /Total Assets. Profit which is computed using the formula: Net Income/ Total Sales.

TABLE: 1
RESULTS OF DESCRIPTIVE STATISTICS OF THE MULTINATIONAL COMPANIES DURING THE STUDY PERIOD FROM 2008 TO 2017

Variables	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
DER	6.411	11.701	5.499	3.249	5.887
BR	23.045	52.917	7.344	4.184	6.237
NDST	51.345	145.457	13.539	5.560	15.674
PR	72.028	147.352	23.092	7.779	22.004
PROFIT	41.185	82.771	18.388	5.226	13.781

Source: Data Collected from Prowess Database and Computed using E-views 7. DER: Debt and Equity Ratio, BR: Business Risk, NDST: Non Debt Shield and Tax, PR: Political Risk, Profit.

Table 1 shows the results of Descriptive Statistics on Capital Structure of Multinational Companies. The mean value was positive for all the variables namely Debt to equity ratio, Business Risk, Non Debt Shield Tax, Political Risk and Profitability for all the sample firms during the study period from 2008 to 2017. It is clear from the above table the variable Political Risk in highest mean value of 72.028. The highest volatility in the variable of Political Risk 147.352, the skewness was positive for all the variables. The kurtosis value was greater than the normal distribution value 3 which indicate leptokurtic distribution. The Jarque – Bera was greater than 5 which indicate the normality of distribution for the variables namely Debt to equity ratio, Profit, Business Risk, Non Debt Shield and Tax and Political Risk of Multinational Companies.

TABLE: 2
RESULTS OF CORRELATION BETWEEN THE CAPITAL STRUCTURES OF MULTINATIONAL COMPANIES DURING THE STUDY PERIOD FROM 2008 TO 2017

		DER	BR	NDST	PR	PROFIT
DER	Pearson Correlation	1	.963**	.759*	.508	.405
	Sig. (2-tailed)		.000	.011	.134	.245
BR	Pearson Correlation	.963**	1	.805**	.626	.309
	Sig. (2-tailed)	.000		.005	.053	.385
NDST	Pearson Correlation	.759*	.805**	1	.376	.465
	Sig. (2-tailed)	.011	.005		.285	.175
PR	Pearson Correlation	.508	.626	.376	1	.317
	Sig. (2-tailed)	.134	.053	.285		.373
PROFIT	Pearson Correlation	.405	.309	.465	.317	1
	Sig. (2-tailed)	.245	.385	.175	.373	

*. Correlation is significant at the 0.05 level (2-tailed). **Source: Data Collected from Prowess Database and Computed using SPSS.16.0. DER: Debt and Equity Ratio, BR: Business Risk, NDST: Non Debt Shield and Tax, PR: Political Risk, Profit.**

Table 2 shows the results of correlation between the Capital Structure of Multinational Companies during the Study Period from 2008 to 2017. There is significant positive relationship between Debt to Equity ratio and Business Risk, Non Debt Shield Tax variables witnessed significant 'p' value which was found to be (96.3%), (75.9%). Non Debt Shield and Tax and Business Risk variables witnessed significant 'p' value which was found to be (80.5%) of Multinational Companies. Therefore the Ho1; "The relationship between the capital structure of Multinational Companies is not significant" is rejected.

TABLE: 3
RESULTS OF MODEL SUMMARY OF THE CAPITAL STRUCTURE OF MULTINATIONAL COMPANIES DURING THE STUDY PERIOD FROM 2008 TO 2017

Company Name	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Abb Ltd	.981	.962	.888	.20460	1.728
Ambuja Cements Ltd	.813	.660	.019	.12474	2.447
Bosch Ltd	.684	.468	.597	.35601	2.799
Castrol India Ltd	.917	.840	.521	.38543	1.953
Britannia Ltd	.372	.127	.538	.20443	1.572
Colgate Ltd	.213	.103	.159	.15404	2.447

HUL Ltd	.511	.346	.371	.30403	1.842
Maruti Suzuki Ltd	.633	.472	.300	.24091	2.794

Source: Data Collected from Prowess Database and Computed using SPSS.16.0, Dependent Variable: DER (Debt to

Equity Ratio), Independent Variables: BR (Business Risk), NDST (Non Debt Shield and Tax), PR (Political Risk), and Profit.

Table 3 shows the results of model fitness for the capital structure of multinational sample firms during the study period from 2008 to 2017 with Debt to Equity Ratio as dependent and Profit, Political Risk, Non Debt Shield Tax and Business Risk as independent variables. It is noted from the above table that R square value less than the R value for all selected Multinational Companies' model is good.

TABLE: 4
THE ANOVA RESULTS OF CAPITAL STRUCTURE OF MULTINATIONAL COMPANIES DURING THE STUDY PERIOD FROM 2008 TO 2017

Model	Sum of Squares	Df	F	Sig.
Abb Ltd	3.159	4	2.579	.731
Ambuja Cements Ltd	.091	4	.972	.556
Bosch Ltd	.334	4	.439	**.020**
Castrol India Ltd	0.002	4	2.633	.129
Britannia Ltd	.209	4	.573	.111
Colgate Ltd	.011	4	.772	.355
HUL Ltd	0.001	4	.397	**.012**
Maruti Suzuki Ltd	.403	4	.163	.893

Source: Data Collected from Prowess Database and Computed using SPSS.16.0 Dependent Variable: DER

(Debt to Equity Ratio), Independent Variables: BR (Business Risk), NDST (Non Debt Shield and Tax), PR (Political Risk), and Profit.

Table 4 shows the results of Analysis of Variance for the capital structure of multinational companies during the study period from 2008 to 2017 with Debt to Equity Ratio as dependent and Profit, Political Risk, Non Debt and Shield Tax and Business Risk as independent variables. It is to be noted from the results that 'F' value and 'p' value which is lesser than 0.05 at 5% level for Bosch Ltd and HUL Ltd. Hence the Ho1: "There was no significant impact of determinants on the capital structure of Indian Multinational Companies" is rejected.

TABLE: 5
COEFFICIENT RESULTS OF THE CAPITAL STRUCTURE OF MULTINATIONAL COMPANIES DURING THE STUDY PERIOD FROM 2008 TO 2017

		DER	BR	NDST	PR	PROFIT
Abb Ltd	T	2.472	.178	1.339	2.958	.617
	Sig	.191	.134	.273	.266	.381
Ambuja Cements Ltd	T	.927	.617	.621	.823	1.223
	Sig	.422	.581	.578	.833	.309
Bosch Ltd	T	.751	.245	.808	.613	1.036
	Sig	**.007**	.967	**.064**	.205	.376
Castrol India Ltd	T	.351	.512	.278	.621	1.151
	Sig	.749	.644	.799	**.**157	.333
Britannia Ltd	T	1.401	.651	.271	.351	1.091
	Sig	.715	.562	.804	.749	.355
Colgate Ltd	T	.616	.365	.287	.517	1.402
	Sig	.581	.612	.793	.641	.255
HUL Ltd	T	1.327	.117	.121	.113	1.023
	Sig	.122	**.058**	.673	.833	.134
Maruti Suzuki Ltd	T	1.336	.347	.372	.269	1.076
	Sig	.317	.252	.577	.186	.275

Table 5 explains the co-efficient of results of the capital structure of multinational companies during the study period from 2008 to 2017. It is to be noted from the results that the 'p' value of none of the variable Non Debt Shield and Tax and Business Risk were lesser than 0.05 for Bosch Ltd and HUL Ltd. Hence the Ho1: "There was no significant impact of Determinants on Capital Structure of Indian Multinational Companies" is rejected.

FINDINGS AND SUGGESTIONS

The study examined the determinants of the capital structure of NSE MNC Index companies during the study period from 2008 to 2017. The Descriptive Statistics results reveals positive mean value for all variables, highest volatility for Political Risk variable, leptokurtic distribution for all variables and normal Debt to equity ratio, Business Risk, Non Debt Shield Tax, Political Risk and Profit of Multinational Companies. The correlation result reveals that significant relationship between the capital structures of multinational companies. The regression result concludes that the significant impact of the determinants of the selected variables on capital structure of multinational companies.

CONCLUSION

The study investigates the determinants of the capital structure of NSE MNC companies during the period from 2008 to 2017. The study concluded that the significant capital structure determinants are business risk and Non Debt Shield Tax.

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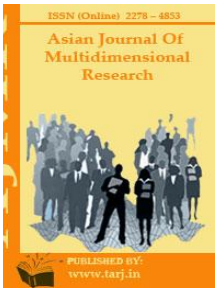

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A STUDY ON WOMEN MIGRATION INTO GARMENT INDUSTRIES OF TIRUPUR

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ABSTRACT

Migration of women is certainly not a new trend, but it has only just begun to be recognized more widely. Women currently make up around half of the world's estimated 210 million international migrants. Women – old or young, single or married, with or without their families – are increasingly moving across national borders in an effort to improve their own and their family's wellbeing. Despite the diversity of women's migration patterns, their manifold reasons and causes for moving, women's labour migration stimulated by large economic and social inequalities in the world is becoming ever more significant. This study is been conducted to understand the reason behind migration and their living, working conditions at the place of destination and the problems faced by the migrant women who are employed in Garment industries of the Tirupur district. "The expansion of women's capabilities not only enhances women's own freedom and well being but also has many other effects on the lives of all. Among the major destinations for young women are the garment, textile and footwear factories in the cities and in recently established industrial zones. (Ruth 2008)

KEYWORDS: *Migration, women migrants, Tirupur, Garment Industries.*

INTRODUCTION

Migration of women is certainly not a new trend, but it has only just begun to be recognized more widely. Women currently make up around half of the world's estimated 210 million international migrants. Women – old or young, single or married, with or without their families – are increasingly moving across national borders in an effort to improve their own and their family's wellbeing. Despite the diversity of women's migration patterns, their manifold reasons and causes for moving, women's labour migration stimulated by large economic and social inequalities in the world is becoming ever more significant.

Young rural women have been recruited into the urban labour market following the recent establishment of industrial zones around Tirupur garment areas. Women, who were previously, under parental control, economically dependent and confined within a small geographical area, are now earning their own incomes and being exposed to the wider socioeconomic arena. The values, attitudes and ideologies of migrant daughters may change rapidly along with their changing livelihoods. Moreover, parents and daughters who have grown up under different socioeconomic realities have different ways of understanding and interpreting these processes of change (Lie and Lund 1991:149) and may respond in very different ways.

The proportion of women in global migration flow is increasing rapidly and they have become the pioneers of human migration chain. Migration has provided larger opportunities for women to improve their own living situation and their contribution to national development is enormous. When women from a given culture and economic situation migrate, their motivation to move, the migration process and the conditions in destination country are entirely different. "The expansion of women's capabilities not only enhances women's own freedom and well being but also has many other effects on the lives of all. An enhancement of women's active energy can in many circumstances, contribute substantially to the lives of all people men as well as women, children as well as adults" (United Nations, 2004 a). This paper aims at understanding the reason behind the women who are migrating into the Tiruppur area and their working, living condition and problems faced at the place of destination.

OBJECTIVES OF THE STUDY

- To find out the socio-economic background of the migrant worker
- To understand the reasons of migration
- To analyze the working and living condition of women migrants
- To provide information on problems faced by migrant women worker

REVIEW OF LITERATURE

Livelihood opportunities for young women in rural areas are limited, and the prospect of waged jobs is attracting many to the cities. Such migration has major impacts not only on employment and income levels, but is also likely to have impacts on social structures, family relationships and individual identities. Among the major destinations for young women are the garment, textile and footwear factories in the cities and in recently established industrial zones. (Ruth 2008)

Women – and migrant women, in particular – are affected by these immense economic restructuring processes in many ways. Growing unemployment and underemployment, reduced social services, labour displacement, increasing poverty and inequality, and violence against women have created and will continue to create rising pressure on women to look for new survival strategies for themselves and their families. (Anja and Andrea 2010)

A study conducted by ILO (2002) relates to gender and migration. It explains the importance of considering gender issues in migration. Poverty is the main push factor for migration of men and women. The wage differences in sending and receiving countries compelled women to migrate. Due to the unemployment of male at home and because of the reduction in demand for male workers in recession in receiving countries as well as economics shift to serious spun female migration. Women and men follow different migration pattern and women suffer human abuses and violence due to their dual vulnerability as women and migrant.

Female migration has not only provided the economic opportunity to migrant women`s but also to change their social status. It has largely solved the problem of unemployment among women. It has brought about a dramatic change in the employment pattern of women in the sense that there is a shift from agriculture to non-agricultural activities, particularly self-employment.

Migration has increased yearly earnings of all migrants, particularly to women, where women are employed in the formal sector in terms of all parameters such as income, assets, savings, etc. Similarly past studies observed that migration has greater impacts of adoption of voluntary family planning and reproductive health related attitudes and behaviours in rural areas (Zacharia and Irudaya Rajan 2001; Bhatia and Ajit,1992, Xu,Wu and Ann1992, Hema Kumari and Tataji,1998; Sivakumar,2001,). In reproductive domain past study has already established significant link that, effects of rural-urban return migration provides important policy implications for the reform of China`s family planning programme towards reproductive health (Xu, 1992). In total, migration improves the individual and household status in terms of economic wellbeing moreover; it treated as an instrument of reform mechanism.

STATEMENT OF PROBLEM

Migration is a complex and often contradictory process, which provides women with opportunities for social and economic mobility, but can also subject them to new forms of exploitation, abuse and exclusion. Women tend to be disadvantaged in the process of migration compared to men and face multiple challenges and adverse conditions based on the intersection of gender, age, nationality, class and ethnicity. The disadvantaged position of many migrant women leads repeatedly to increased exploitation and a growing vulnerability of their health, bodily integrity and well-being. Women migrant workers engage in a wide range of activities and at numerous skill levels, but, because of the gender division of labour, they are vastly over-represented in casual, temporary, sub-contracted and informal employment. These jobs are characterized by insecure conditions, low wages, poor working conditions and a lack of social protection. In most migration flows involving high-skilled employment – obviously less likely to take place under exploitative conditions and women are in a minority.

METHODOLOGY

The study has been conducted in Tirupur where 100 migrant women workers were enquired about the migration information through interview schedule that has been framed for the study. The sample respondents were selected randomly and the data has been collected from February 2017 to May 2017.

FINDINGS OF THE STUDY

Socio-economic background of the women migrant workers

By understanding the socio-economic background of the migrants will let us know the detail information about the migrants. It tells about the background of the migrant workers. This study has made an attempt to find out the socio-economic background of the women migrant workers employed in the Tirupur garment units.

TABLE 1
SOCIO ECONOMIC PROFILE OF WOMEN MIGRANT WORKERS

Socio-Economic Profile	Number	Percentage
Type of family		
Joint	51	51
Nuclear	49	49
Age		
<20	38	38
20-30	44	44
30-50	13	13
>50	5	5
Total	100	100
Marital status		
Married	46	46
Unmarried	45	45
Widow	9	9
Total	100	100
Education Qualification		
Illiterate	26	26
Primary	71	71
Others	05	03
Total	100	100
Community		
OBC	31	31
SC/ST	54	54
Others	15	15
Total	100	100

Monthly Income		
Rs.2000 to 5000	55	55
5001 to 9000	33	33
9001 to 13000	07	07
Above 13000	03	03
Total	100	100

Source: Primary Data 2017

In the study about fifty one percent of the sample respondents were from joint family and without a big difference remaining 49 percent were from nuclear family. Majority of the workforce (44 percent) were from the age group of 20-30 years. Information relating to educational attainments of the respondents indicates that 45 percent had at least had their primary education. It is to be noted that 26 percent of the sample respondents were illiterates. About 71 percent of the migrant garment industry workers of the current study were found to be either illiterate or had completed only primary level of education. Data relating to marital status of the members in the current study highlights that 46 percent of the population were married and other 45 percent were unmarried. In the study about 9 percent of the migrants were widows.

REASON FOR MIGRATION

Historically migration has been in existence from time immemorial and its incidence and cause have varied depending upon the various dimensions of situations that has been prevailing at a particular place at a given point of time. The factors influencing the decision to migrate are varied and complex, from one country to another or from one religion to another within a country depending upon socio, economic, demographic and cultural factors of the origin on one hand and upon the conceptualization of migration process and the scale of investigation on the other. Hence, in the current study, the migrants were asked to state the reasons which made them to migrate which are given in the following table 2.

TABLE 2
REASONS FOR MIGRATION

S.No	Reasons	Number	Percentage
1	For family development	25	25
2	To earn additional income	19	19
3	For environmental reasons	18	18
4	To raise standard of living	16	16
5	Earning for their marriage dowry	15	15
6	To remove poverty	7	7
	Total	100	100

Source: Primary data, 2017

It is clear from the table that larger portion (25 percent) of the respondents migrated for `family development', 19 percent of them reported that they migrated in order to earn additional income,

and 18 percent for environmental reasons. It is also to be considered that 16 percent had migrated to improve their standard of living, 15 percent has migrated for earring income to provide money for their dowry and only seven percent said to remove poverty.

Living Condition and Working Condition of women workers- Working condition

The present study has made an attempt to observe the employment status of the migrant women workers. The following table shows the findings of the analyses,

TABLE 3
WORKING CONDITION

S.No	Working condition	(%)	S.No	Working condition	(%)
1	**No. of days employed in a week**		3	**Monthly Income**	
	4			Rs.2000 to 5000	55
	5	10		5001 to 9000	33
	6	30		9001 to 13000	07
	Total	60		Above 13000	03
		100		Total	100
2	**No. of hours of worked in a day**		4	**Rating of working condition**	
	6	15		Very Good	71
	7	30		Good	10
	8	10		Average	9
	10	45		Poor	7
	Total	100		Very poor	3
				Total	100

Source: Primary data, 2017

The respondents were asked questions on the number of days they were employed in a week in order to analyze their working conditions. A majority of 60 percent of the migrant said that they were employed six days in a week. The study also found out the number of working hours for the migrant workers in a day, where, a majority of 45 percent said they worked for 10 hours a day. When considering their wage, different migrant workers get different wages based on their skill, working hours and the type of work they do. In this a majority of 55 percent were getting income in the range of □2000-5000 in a month. Regarding the working condition the respondents were asked to give their views on a 5 point rating scale as `very good', `good', `average', `poor', and `very poor'. A majority of 71 percent have rated their working condition as `very good'.

Living condition of the migrant worker

TABLE 4
LIVING CONDITION OF MIGRANT WORKERS

S.No	Living condition	Number	S.No	Living condition	Number
1	**House**		6	**Bathroom**	
	Rented	100		Within the house	32
	Owned	0		Outside the house	45
	Total	100		Away from the house	23
				Total	100
2	**No. of rooms**		7	**Details of latrine**	
	1	80		Within the house	32
	2-3	6		Outside the house	45
	>3	14		Away from the house	23
	Total	100		Total	100
3	**Type of floor**		8	**Type of latrine**	
	Mosaic	65		Pit latrine	13
	Cement	23		Independent	12
	Tiles	12		Shared	75
	Total	100		Total	100
4	**Type of roof**		9	**Drainage facility**	
	Asbestos	43		Open	65
	Terrace	37		Closed	35
	Tiles	20		Total	100
	Total	100			
5	**Type of lighting**		10	**Drinking water**	
	Electrified	100		Within the premise	32
	Non-electrified	0		Near the premise	22
	Total	100		Away from the premise	46
				Total	100

From the above table it is found that all the sample respondents (100 percent) live in rented houses. The table also shows that a majority of 80 percent of the sample units live in single room house while the remaining 20 percent live in 2-3 rooms and in rented houses with more than 3 rooms. When analyzed on the flooring of the houses of the respondents most of them (65

percent) reported that they have mosaic flooring, followed by 23 percent living in cement flooring and only 12 percent of the migrants live in tiles flooring houses

When an analysis was made on the availability of basic amenities, such as bathroom a majority of 45 percent reported that they have bathroom outside the house, 32 percent stated they have bathroom within the house and 23 percent stated that they have bathroom away from their home.The study also finds the details of latrine available to the respondents in their place of destination. It reveals that a majority of 75 respondents are sharing their latrine. It is followed by pit latrine by 13 percentage and 12 percent of respondents have independent latrine facility.

The next analysis was on the drainage system, in which a majority of 65 percent of the respondents stated that they have open drainage system in their accommodation and only 35 had closed drainage system. There was also question related to the availability of drinking water, where a majority of 46 percent stated that they have to go away from their premises for getting pure drinking water, 32 percent had drinking water facility within the premise and 22 percent stated that they had water facility near their premise.

Problems faced by the migrant women workers

Table -5

Problems faced by women migrant workers

S.No	Problem	Scores	S.No	Problem	Scores
1	Language	71.81	6	Availability of health provision	48.37
2	Conflict with co-workers	55.78	7	Children education	46.69
3	Conflict with management	54.58	8	Health	42.73
4	Irregular working time	53.91	9	Job promotion	41.56
5	Irregular wage pattern	50.79	110	Lack of employment opportunity	39.73

Source: Primary Survey 2017

The above table depicts the problems faced by the migrant women. Garret Ranking was used for the ranking of problems. The Ist rank is been assigned for the problem language followed by Conflict with co-workers and the least score has been assigned to job promotion and lack of employment opportunity.

CONCLUSION

Migration takes place mainly for better employment and better standard of living. Here in this study has found that most of the women have migrated for economic development. And migration is found pre dominant among young migrant workers. With their migration they are facing so many problems associated with language and conflict with co-workers. There is need for good governance and proper labour union in support for women migrant workers.

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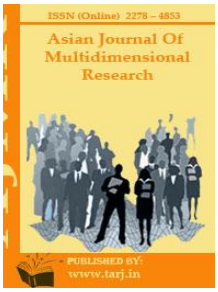

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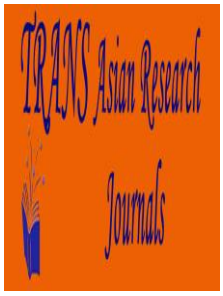

POLITICS OF FOOD SECURITY: A STUDY OF MALNUTRITION AND INFANT MORTALITY IN ATTAPPADI KERALA

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ABSTRACT

The infant deaths in Attappadi block in the Palakkad district of Kerala has brought out certain cautionary tales, especially in the area of human security and public spending. Kerala, for a longtime, has inconsequentially followed the Kerala model of development, particularly in the area of health care and education; two areas where Kerala is losing out in now. Between 2010 and 2017 there have been a large number of infant deaths and chronic mother and child illness in various parts of Kerala. This has prompted a wake-up call. This clearly demonstrates how politics has wreaked havoc with human security and health care in Attappadi. Food security as it has become a concern in Kerala, disincentives benefits to marginalized communities, as they have become so expensive. The multinational corporations and the national private monopoly companies are exploiting the poorer sections of the population. An Essay on Entitlement and Deprivation, 1981", played an important role in altering the 'access to food' dimension from a macro economic level to a micro economic problem. "The State shall provide free and compulsory education to all children under the age of six to fourteen years in such manner as the State may, by law, determine." The human security of the tribals is the need of the hour. For this, the government has to make policies for the provision of basic human security as per the 1994 United Nation's guidelines. The 1974 World Food Summit defined food security as the "ability at all times to supply the world with basic products to sustain food consumption growth while controlling fluctuations and prices."

KEYWORDS: *Food Security, Infant Mortality, Malnutrition, Marginalization, Displacement.*

INTRODUCTION

Food security remains a major strategic concern globally. The concern has been aggravated following the 2007/08 food crisis, which provoked "hunger riots" in many countries. In India, growing food prices have resulted in mass political demonstrations by the people that led to the downfall of governments at the central and state levels. Famine deaths and farmer's suicides are a growing concern in India. The relatively deprived and marginalized population namely the Dalits and Adivasis bear the major brunt of the food crisis in India. The continuing lack of food security has resulted in malnutrition and infant mortality among the Adivasis in Kerala. The Attappady block in Palakkad district of Kerala is a case where political factors have led to the malnutrition and infant mortality.

OBJECTIVE OF THE STUDY

This paper makes an elucidation of the politics of food security within the context of Adivasis in Attappadi Block. The main intention of this paper is to address the political aspect of food availability and its accessibility in Attappadi Block. Food security among the Adivasis in Attappady is an extremely complex phenomenon linked to historical, social, economic, cultural and above all political factors. The low bargaining capability of the Adivasi population in the Kerala politics have made them a shunted social group even from other marginalised sections of the population. This paper addresses the reasons for the social shunting within the context of the larger political and ideological landscape of Kerala.

METHODOLOGY

The study has used both primary and secondary data. Random sampling technique and interview methods are used for primary data collection. A structured questionnaire was prepared and people were interviewed on the basis of the questionnaire to collect data. The major part of the work has used the large-scale secondary data from Annual reports of ITDP, The Rozario Commission Report on Attappadi, Report of Attappady Tribal Block, Report of the Attappady Hill Area Development Society (AHADS), Census Report of Palakkad District, The Palakkad District Handbook, demographic data, journals, news paper reports, internet etc.

As per the Global Hunger Index released by the International Food Policy Research Institute, India ranks 66th among the 88 countries. Ironically in India, the Adivasis are amongst the multitude of the population who go hungry and are vulnerable to malnutrition and mortality. The primary victims are the infants among the Adivasis in India. Even though, Indian economy is growing at a faster rate and the GDP is expected to rise putting the country among the seventh richest in the world, large sections of its population are living below poverty line. The Human Development Index 2016 shows that the country is ranking below Srilanka and Maldives at a position of 131 with an HDI value of 0.624 out of 188 countries. The regional disparities in education, health and living standards have diminished India`s HDI value. (HDR: 2016) Added to this, the new economic policy unleashed by the Government in 1991, has only helped the rich to become richer while the poor are getting poorer. It has widened the gap between the lowest poor and the highly rich. While the urban, the upper middle and higher classes have grown at a faster rate, the tribals, lower caste, minorities and other backward people have become marginalized and left out from the trajectory of growth of the market model economy and globalization process in India. The multinational corporations and the national private monopoly companies are exploiting the poorer sections of the population. The Adivasis are loosing out their traditional habitats and indigenous survival strategies to the onslaught of marketization and

globalization. Infant Mortality Rate (IMR) among Adivasi children below the age of five is much below the national average. What is important is a 'people's need approach' to health care and nutrition among the tribal population in India.

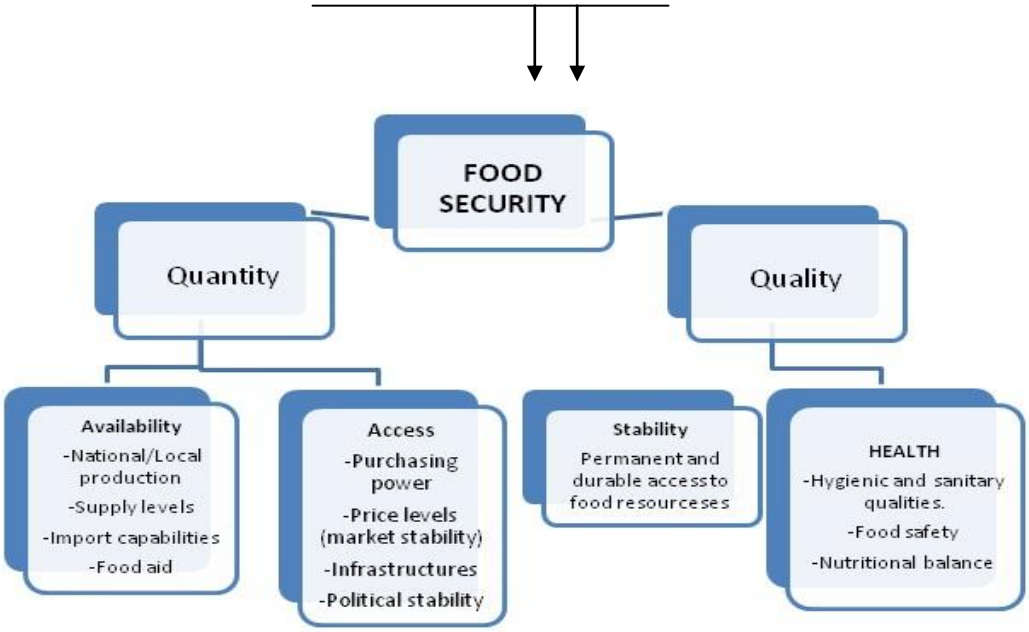
FOOD SECURITY: DEFINITION

The 1996 World Food Summit enlists: " Food security is guaranteed when, at all times, all people benefit from economic, social, and physical access to sufficient, safe and nutritious food to meet their nutrition needs and food preferences, so that they can lead an active and healthy life."

In this connection, it is worthwhile to analyze the history of the concept of food security since its introduction in the 1970's. The concept of food security first appeared after the 1975 World Food Summit. The 1974 World Food Summit defined food security as the "ability at all times to supply the world with basic products to sustain food consumption growth while controlling fluctuations and prices." This definition focused on the issue of food availability.

Prof. Amartya Sen`s study of "Poverty and Famines: An Essay on Entitlement and Deprivation, 1981", played an important role in altering the 'access to food' dimension from a macro economic level to a micro economic problem. It has highlighted the capability approach ie. the capability of the most impoverished to feed themselves at the micro level. The concept of food security thus is "the capability to ensure that the food system provides the whole population with the adequate long-term food supply." Amartya Sen in his study pointed out that the inadequate distribution system that causes food availability and not on the contrary lack of food as is often highlighted. Sen put forward the need for capabilities ie. the means available to realize the hungry his potential. More recently, the concept of food security has moved towards the definition of an inalienable right based and a universal concept, as 'right to food ', recognized by constitutions of various countries of the world as per the guidelines evolved in the Universal Declaration of Human Rights, 1948. Thus there is a constitutionalization of the entitlement as a right to food.

The Multidimensional Aspect of Food Security



FOOD SECURITY INDICATORS

The Committee on World Food Security (CFS) in its 26th session in 2000 has listed seven indicators for

1. Percentage of undernourished people.
2. Average per capita energy availability from food.
3. The proportion of grains, root and tuber products in total EAF.
4. Life expectancy at the time of birth.
5. The death rate for children younger than five.
6. The proportion of underweight children younger than five. Percentage of adults with a lower than 18.5 Body Mass Index (BMI).

CONSTITUTIONAL PROVISIONS

The Constitution of India in Article 21 A under Fundamental Rights has made it obligatory for the State to provide for free and compulsory education to children. "The State shall provide free and compulsory education to all children under the age of six to fourteen years in such manner as the State may, by law, determine." Article 39 (f) states, "that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against moral and material abandonment". The Supreme Court in PUCL vs. Union of India & others has affirmed the right to food as necessary to uphold Article 21 of the Constitution of India, which guarantees the fundamental right to "life with human dignity".

The Adivasis and Food Security in Kerala

The Adivasis comprise of 1.4 percent of the total population in Kerala. The Adivasis are inhabited mainly in Wayanad district (37.36%), Idukki (14%) and followed by Palakkad (10.8%). Thus, these districts together have the largest concentration of Adivasi population in Kerala. Amongst the population of Adivasis in Kerala, children constitute around 14% of the total Adivasi population.

Kerala`s food security cannot be characterized as generally manageable reflecting the current trends of lower agricultural yield and shifting crop pattern from food crops to cash crops. Kerala is dependent on neighboring states for regular staple food supply. Kerala`s per capita food availability has been on a declining trend for the past few decades. In regions, notably coastal areas and hilly regions, malnutrition continues to be a challenge.

The Planning Commission of India in its "Kerala Development Report" says: "**…** rural poverty among Adivasis in Kerala persists and comes to more than two-and-half times that of the rural population of Kerala in general. Adivasis constitute only around one percent of the state`s population, nearly one-fourth of them still live below the official poverty line; the actual incidence of poverty among them could be even higher, the high incidence of poverty among Adivasis points out to the various dimensions of social inequalities prevalent in the state **….**"

Attappady: A Geographic Profile

Attappady is a tribal development block situated in the eastern lying plateau of the Western Ghats, Mannarkad taluk of Palakkad district in Kerala. It is divided into 6 revenue villages for administrative purpose namely Padavayal, Pudur, Kottathara, Agali, Sholayar and Kallumala and has a geographical coverage of 750 sq. km. The Attappadi Tribal Development Block was set up in 1962. As per the 2011 census, the population of Attappadi was around 30460. According to the 1951 census, 90.32% of the population in Attappadi consisted of tribals whereas now the tribals constitute only 44% of the total population. The declining strength of Adivasis in the area is due to the large-scale migration to the area for land by outsiders between the 1960`s and 1980`s.

TABLE 1- POPULATION IN ATTAPADI DURING 1951-2011

Population - Attappadi		
Year	**Tribal**	**General**
1951	10200	1100
1961	12972	8459
1971	16536	22647
1981	20659	41587
1991	24228	37805
1998	25447	34134
2001	28711	34131
2011	29059	---

Source:- Development Document 2011, Agali Block Panchayat.

In Attappadi Block area 50% of the population is illiterate. There is a combination of poverty, illiteracy and disease in the region. As per the health statistics, about 30% of the tribal population in Attappadi has sickle cell anemia. Diseases such as typhoid, tuberculosis and diarrhea are very common among children.

Government schemes in Attapadi

A large amount of the public funds were invested in Attappadi through a number of development programmes after independence. They are:-

1. Establishment of Attappadi Tribal Block, 1962.
2. Malaria Eradication Programme.
3. The Kundla Soil Conservation Plan.
4. The Integrated Tribal Development Plan (ITDP), 1975.
5. Tribal Sub Plan (TSP).
6. Attappadi Hills Area Development Society (AHADS).
7. Attappadi Comprehensive Tribal Development and particularly Vulnerable Tribal Group Development Project under the National Rural Livelihood Mission (NRLM), 2013.

Integrated Child Development Scheme (ICDS).

Attappadi is an excellent example as to how misguided government programmes can wreak havoc with a population in the name of development. The tribal hamlets are known as

"Oorus" in Attappadi. There are around 187 hamlets inhabited by Adivasis and non Adivasis. The three main Adivasi groups in Attappady are Kurumbas, Mudugas and the Irulas. The non-Adivasi group is called as 'Vandavasis' who are migrants from Tamilnadu. There are also migrants from various parts of Kerala who have inhabited here from the 1960`s onwards.

TABLE 2 INFANT DEATH IN ATTAPADI DURING 2013-2017

Year	No. of Infant Deaths
2013	63
2014	30
2015	14
2016	8
2017	14

CAUSES OF DEATH

Malnutrition

Birth defects

Poor maternal health

Children facing malnutrition - 672

Acute malnutrition - 370 (As per Health Department Survey**)**

Source:- The Hindu, Dec, 19, 2017.

Non-accessibility of food is the major cause of malnutrition and infant mortality in Attappadi. The food is not getting to the Adivasi population, when they need it most. "Food distribution systems are largely shaped by political and economic forces that prevent the food from getting where it is most needed." (Garry Kline: 1998)

Food as a Political Concern

The present study has revealed six major factors that have contributed to malnutrition and infant mortality in Attappadi. The first factor is politics. The Adivasi population that has been self-sufficient in the earlier generations has become alienated and is now a dependent segment of the population during the last seven decades after independence due to the coalitional politics in Kerala. The coalitional arrangements in Kerala for government formation have been mostly opportunistic political alignments where the tribals are left out. The Adivasi population has been sidelined in this process and left to fend for themselves. Environmental mismanagement, political and economic isolation are added factors of this phenomenon. The second major factor relates to Kerala`s domestic political choices. It reflects the failure of the political system and government machinery to be accountable to the people that it governs. This is reflected in the political leader`s remark that tribals are alcoholic and alcoholism is the cause of infant mortality. (Times of India, Kerala, July 23, 2003) The third factor for concern is the environment. A series of factors have deteriorated the region due to policy failures. Environmental mismanagement is the primary cause of crop failures for the last few years. The fourth factor is the internal domestic migration that has displaced the local Adivasi community from its traditional land holdings. Encroachment of land through migration from outside has been a perennial problem of Attappadi since independence. Various governments have overlooked the issue of migration and its effects on the tribal population in the state of Kerala. The tribals are loosing out their traditional habitats, the traditional medicines and lifestyles and are not able to cope with the myriad inequalities and challenges as a result of the onslaught of migrant population. The fifth factor is the new trend of marketization and cultural transformation of the population. Tribals are the most susceptible to the evil effects of the market economy. The food prices have increased considerably in the last few decades. The sixth factor is the failure of humanitarian agencies especially the NGOs. There is a humanitarian imperative or moral responsibility on the part of the rest of the population in Kerala to save the lives of children in Attappadi. The crisis in Attappadi has not received much attention among the rest of the population in Kerala. The adamant attitude of the wealthy and the middle class and its NGOs is a matter of serious concern.

The Crisis of Food Security in Kerala

The crisis of food security in Kerala is a multifaceted issue that has its roots in the uneven development pattern of Kerala model of development influenced by social, political, economic and cultural variables. The Adivasis who are politically vibrant are spared from the famine. This clearly shows the political twist to the entire issue in Attappadi block. The malnutrition and infant mortalities in Attappadi have more to do with politics which is linked to the uneven development pattern of the Kerala model of development, rather than economic and other factors. The stunted economic growth among the Adivasis has created a structurally dominant system from which the Adivasis in the region are unable to come out of. These historically dominant hegemonic structural relations have disempowered the Adivasis from the rest of the population. Thus there is a politically oriented structural crisis to the entire problem. The food security is likely to continue as a major concern for the Adivasis especially in the Attappadi region in the future, given the way in which the food security has become a major concern for

the rest of the population in Kerala. It will have its collateral political effects and long-term strategic implication for the economy of the state.

CONCLUSION

The malnutrition and infant deaths in Attappadi shows the breach of constitutional obligation on the part of the State and its agencies. The politics of food and its resultant structural problems coupled with ineffective governance have resulted in the tragic deaths of innocent infants. The governments over the years have shown total neglect and apathy to the series of infant deaths due to malnutrition in the area. The Attappadi block in Palakkad district of Kerala is a case where political factors have led to the malnutrition and infant mortality. Hence what are more important are the structural mechanisms necessary for the political entitlement of the right to food. There is something more to it as political, than the mere entitlement as a right and availability of the food through various distributive mechanisms. The political factors play the major role i.e. the political capacity of the local population to have its own food. The human security of the tribals is the need of the hour. For this, the government has to make policies for the provision of basic human security as per the 1994 United Nation's guidelines.

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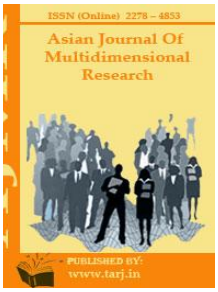

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GROUND WATER MANAGEMENT STRATEGY FOR THE SUSTAINABILITY OF QUALITY WATER RESOURCES IN COIMBATORE – A CASE STUDY

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ABSTRACT

Today, the Ground Water Management (GWM), Water Management strategy and its issues has become the major part of the Coimbatore district. Due to the value tribulations of geogenic and anthropogenic factors it is now very crucial to put into effect vigilance and while setting up additional progress of available ground water resources in the district. The improvement of ground water for irrigation in the district is mainly through dug wells tapping the weathered residuum. The yield of dug wells is improved at favorable locations by construction of extension bores, which are 25 to 100 m deep. In recent years, the bore wells have started replacing dug wells for irrigation purposes. The concept of Strategic Management (SM) techniques and implementation methodology to improve the ground Water level, quality of water resources in a new dimension for sustainability in Coimbatore District. In this background, the study primarily focuses on the issues, development and implementation of new strategies to improve the quality of Ground Water Management and its implementation methodology in Coimbatore District. The usage of groundwater for agricultural, domestic and industrial purposes is indomitable based on the ground water quality. Hence a study has been made to assess the overall ground water quality by adopting effective strategy in Coimbatore. The present case study is carried out with the help of both primary and secondary statistics available from the authorized government web portable for the analysis is made thereafter, which is followed by findings of the study with few suggestions.

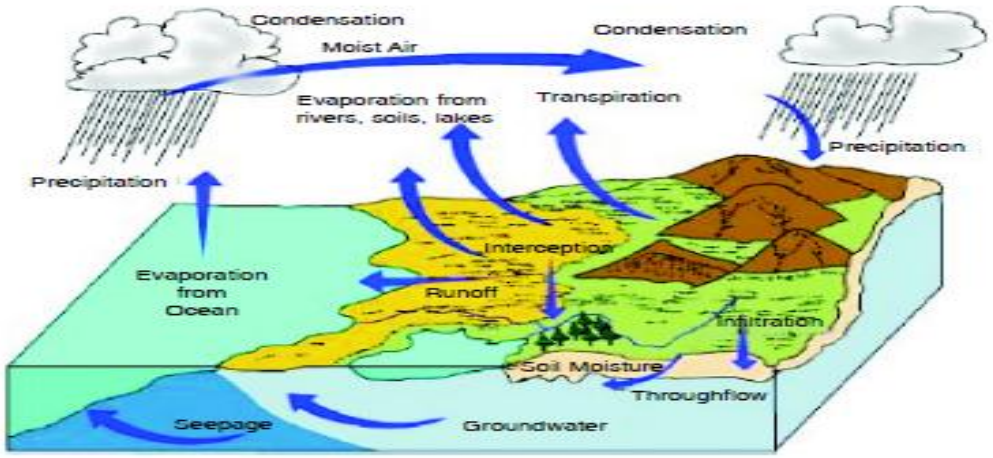
KEYWORDS: *Strategic Management (SM), Ground Water Management (GWM), Management Strategy (MS), Water Resource Management (WRM), Water Development Board (WDB).*

INTRODUCTION

In 2017, three times the average rainfall in September has resulted in the district seeing a healthy increase in the groundwater level. As against the long-term average of 70 mm in September, the district had received 218.1 mm, the Tamil Nadu Agricultural University's Agro Climatic Research Centre has said. The South-West monsoon average for the district was 360 mm, but the district had received 450 mm.

The Ground Water Management (GWM) in the Coimbatore is high in the year and as many as 15 out of 19 blocks in the district have been categorised as either 'overexploited' or 'critical'. The trend analysis of historical ground water level data also indicates a long-term fall in a major part of the district. Drying up of shallow wells, decrease in yield of bore wells are being observed in major parts of the district. Incidence of high TDS, Fluoride, Chloride and Nitrate has been reported from localised areas. Ground water in small packets of the district is likely to cause high to very high salinity hazard when used for irrigation.

Figure – 1: Ground Water Management



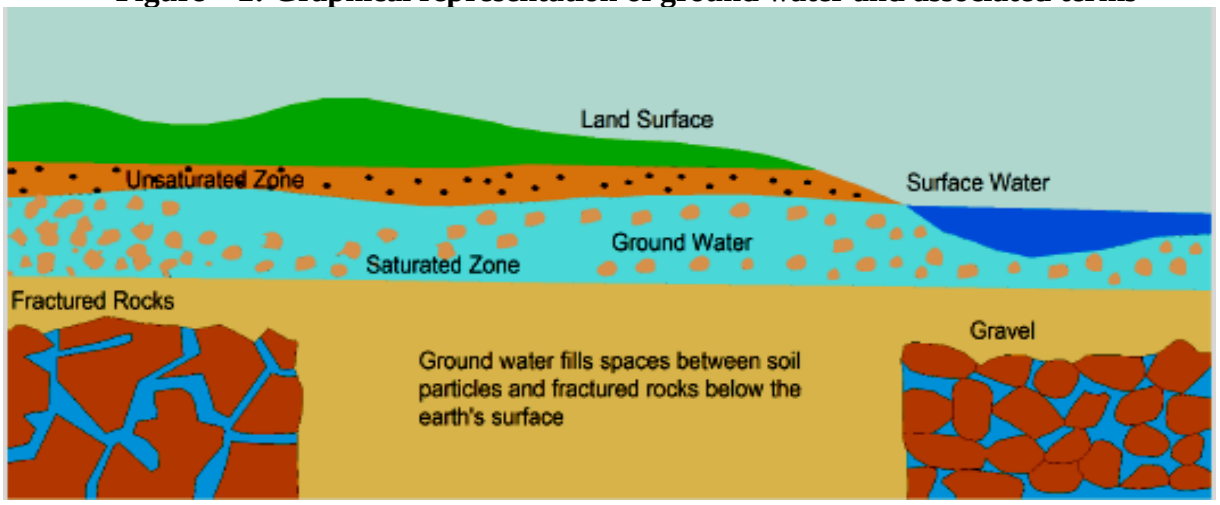
Source: Report of the Expert Group, Ground Water Management and Ownership, Government of India Planning Commission, New Delhi, September 2007.
http://planningcommission.nic.in/reports/genrep/rep_grndwat.pdf

Ground Water in India: An Overview

Ground water is the water that seeps through rocks and soil and is stored below the ground. The rock in which ground water is stored is called aquifers. Aquifers are typically made up of gravel, sand, sandstone or limestone. Water moves through these rocks because they have large connected spaces that make them permeable. The area where water fills the aquifer is called saturated zone. The depth from the surface at which ground water is found is called the water table. The water table can be as shallow as a foot below the ground or it can be a few hundred meters deep. Heavy rains can cause the water table to rise and conversely, continuous extraction of ground water can cause the level to fall. Figure – 2 illustrates the major definitions used in the

context of ground water. The underground (hydro-geological) setting of ground water defines the potential of this resources and its vulnerability to irreversible degradation.

Figure – 2: Graphical representation of ground water and associated terms



Source: Roopal Suhag (2016), Report on Overview of Ground Water in India http://www.prsindia.org/administrator/uploads/general/1455682937~~Overview%20of%20Ground%20Water%20in%20India.pdf

Coimbatore District Profile

Coimbatore district is bounded by Kerala State in the West and South, Tiruppur District in the East, and parts of Nilgiris and Erode Districts in the North. The District lies between 10º 13'00" N to 11º 23' 30"N Latitude, 76º 39'00"E to 77º 30'00"E Longitude and has an area extent of 7649 sq.km. There are 12 Blocks, 228 Village panchayats and 2238 Habitations in the District. The North western part and the Southern part of the Coimbatore is occupied by hill ranges of Western Ghats, namely Nilgiris hills in the North-West and Anamalai hills in the South.

TABLE – 1: FACTS OF COIMBATORE DISTRICTS

Sl. No.	Items	Statistics
01.	Geographical area (Sq.Km)	7470.79
02.	***Administrative Divisions as on 31.03.2007***	
	Number of Tehsils	09
	Number of Blocks	19
	Number of Village	481
03.	***Population (as on 2001 Census)***	
	Total Population	**4,271,856**
	Male	2,176,031
	Female	2,095,825
04.	Average Annual Rainfall (mm)	550-900

05.	***Geomorphology*** (i) Major Physiographic Units (ii) Major Drainages	 Upland plateau region with hill ranges, hillocks and undulating plain Bhavani, Noyal, Amaravathi and Ponnani rivers
06.	***Numbers of Ground Water Monitoring Wells of CGWB*** (i) No.of dug wells (ii) No. of Piezometers	 29 39
07.	***Ground Water Exploration by CGWB*** (i) Number of Exploratory wells (ii) Number of Observation wells (iii) Number of Piezometers under HP	 53 59 33
08.	Dynamic Ground Water Resources in MCM (i) Annual Replenish able Ground Water Resources (ii) Total Annual Ground Water Draft for all purposes (iii) Projected demand for Domestic and Industrial Uses upto 2025 (iv) Stage of Ground Water Development	 792.87 821.00 42.20 117%
09.	Ground Water Control and Regulation (i) Number of OE Blocks (ii) Number of Critical Blocks (iii) Number of Blocks Notifies	 11 04 NIL

Source: ttp://www.cgwb.gov.in/District_Profile/TamilNadu/Coimbatore.pdf

TABLE – 2: FACTS OF GROUND WATER SCENARIO, TAMIL NADU

Sl. No.	Description	Statistics
01.	**Area (Sq.km)**	130,058
02.	**Rainfall (mm)**	995
03.	**Total Districts /Blocks**	32 Districts

04.	**Dynamic Ground Water Resources (2011)** * Annual Replenishable Ground Water Resources * Net Annual Ground Water Availability * Annual Ground Water Draft * Stage of Ground Water Development	21.53 BCM 19.38.BCM 14.93 BCM 77%
05.	**Ground Water Development and Management** * Over Exploited * Critical * Semi-critical	374 Blocks 48 Blocks 235 Blocks

Source: http://www.cgwb.gov.in/State-Profiles/Tamil%20Nadu.pdf

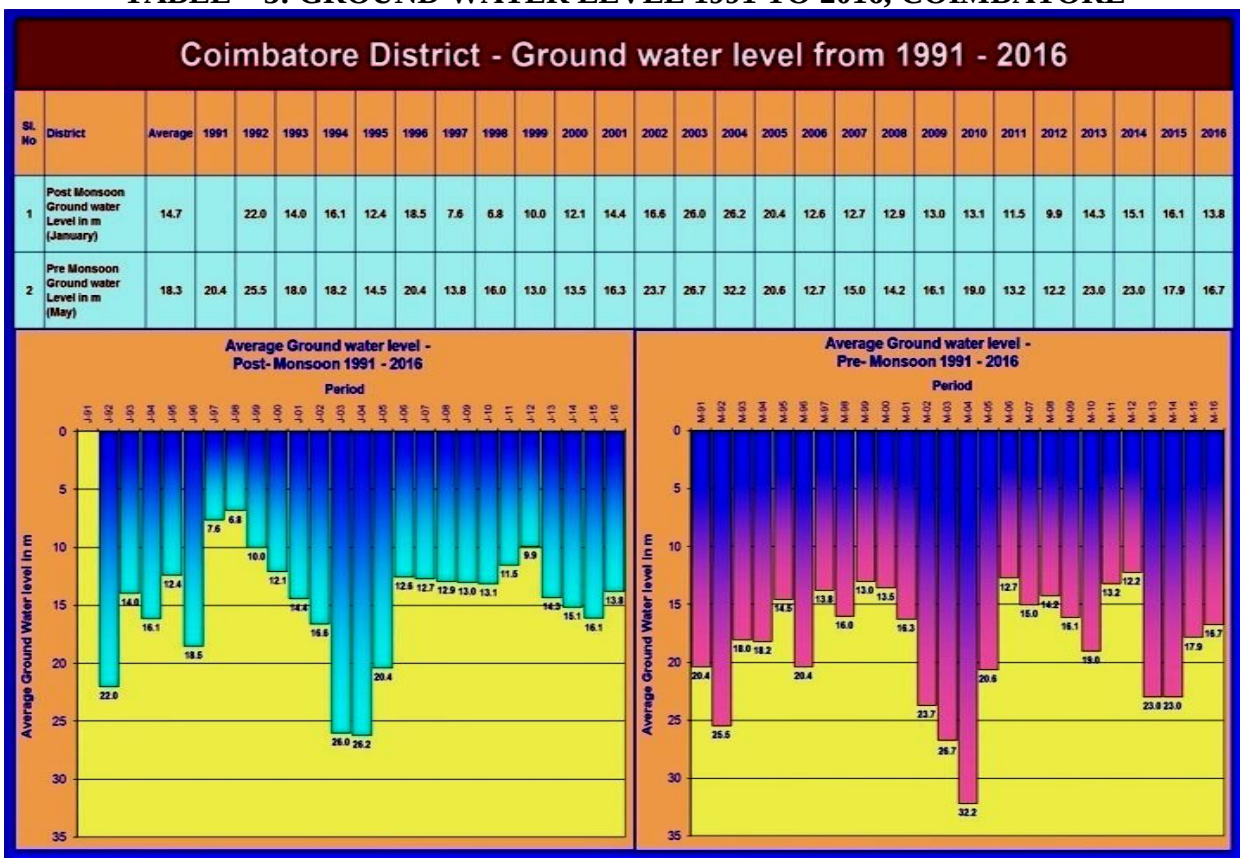
Ground Water Level in Coimbatore

The Ground Water levels from the 38 number of observation wells of TWAD have been analysed for Post-Monsoon and Pre-Monsoon. Since 1991, average Ground water level in m Below Ground Level for pre and post monsoon is as follows:

TABLE – 3: GROUND WATER LEVEL 1991 TO 2016, COIMBATORE

Coimbatore District - Ground water level from 1991 - 2016

Sl. No	District	Average	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	Post Monsoon Ground water Level in m (January)	14.7		22.0	14.0	16.1	12.4	18.5	7.6	6.8	10.0	12.1	14.4	16.6	26.0	26.2	20.4	12.6	12.7	12.9	13.0	13.1	11.5	9.9	14.3	15.1	16.1	13.8
2	Pre Monsoon Ground water Level in m (May)	18.3	20.4	25.5	18.0	18.2	14.5	20.4	13.8	16.0	13.0	13.5	16.3	23.7	26.7	32.2	20.6	12.7	15.0	14.2	16.1	19.0	13.2	12.2	23.0	23.0	17.9	16.7



http://www.twadboard.gov.in/twad/coim_dist.aspx

***Sustainability**

With a view to enhance the Sustainability of the drinking water sources, recharge structures are being implemented by TWAD Board under various State and Central Government assistances. The Recharge Structures implemented so far is as under.

TABLE – 4: RECHARGE STRUCTURES

Check Dam	Percolation Pond	Recharge Pit	Recharge Trench	Others	Ooranies	Defunct Bore well Recharge	Recharge Shaft	Roof top RWH	Hydro Fracturing	Total
239	50	--	--	--	3	5	110	40	0	477

TABLE – 5: GROUNDWATER POTENTIAL AS ON MARCH 2011 (AS PER CGWB):

Net Groundwater Availability (in MCM)	438.81
Existing Gross Groundwater draft for all users (in MCM)	506.15
Stage of Groundwater development (in %)	115
Categorization of District	Over -Exploited

Hydrogeology		**Rainfall**	
Type of aquifer	Semi confined to unconfined quifers	Rock Type	Geological Formation
Aquifer parameters Yield	50 to 300 lpm	Hard Rock	Charnockite, Sillimanite Gneiss,Granite, Pyroxenite Calc.Granulites Quartzite and Alluvium
Transmissivity (T):	1.49; 164.18 m2/day	--	--
Permeability (K):	0.25; 26.75 m/day	--	--
Depth of Water level	7m to 25m	--	--

http://www.twadboard.gov.in

REVIEW OF LITERATURE

The literature relevant to the study comprehensively presented below –

Nalini Jebastina, and Prince Arulraj G (2017) in their work *GIS Based Assessment of Groundwater Quality in Coimbatore District, India* studied the various problem of groundwater depletion and the quality is deteriorated to a greater extent. In addition to this it specifically concentrated on the quality of groundwater for its suitability for drinking and irrigational purposes. This research also assessed by its hydro chemical parameters. Manikandan et.al (2016), in their work *Evaluation of Ground Water Quality in Coimbatore District, Tamil Nadu Using GIS Techniques* discussed about the information sources, its usefulness to various institutions, researchers, ground water practitioners, drilling companies and decision makers those intererest in investigation the level of Ground Water, its strategic Management methods.

S.anbazhagan and A. Jothibasu (2016), in their article on *Groundwater Sustainability Indicators in Parts of Tiruppur and Coimbatore Districts, Tamil Nadu* they emphasized on the use of groundwater sustainability indicators, developed to assess the sustainability of the aquifer in Uppar Odai sub-basin located in part of Tiruppur and Coimbatore districts, Tamil Nadu. S.Vivek and S.Evany Nithya (2015) in their study *Investigation of Ground Water Quality of Upstream Water Tanks in Coimbatore Using GIS: A Review* they studied the source contamination, urbanization and improper disposal of solid wastes lead to contamination of groundwater and surface water resources in this region. Municipal and industrial wastes of the city are presently disposed at four distinct open tanks namely Narasampathy, Krishnampathy, Selvampathy and Kumaraswamy (muthannankulam) tank.

Santhosh and Revathi (2014) in their work *Hydrogeochemical Analysis of Ground Water Parameters in Coimbatore District, Tamilnadu, India***,** the dealt with the hydro geochemical analysis of ground water parameters in the Noyyal river basin along the Coimbatore district. A. Pragatheesh and Pushp Jain (2013) in their work *Environmental Degradation of the Coimbatore Wetlands in Noyyal River Basin* studied the position of wetlands and ground water level taking into the consideration river Noyyal, Aandi Sunai from Vellingiri hills, Siruvani Water from Porathi hills and Chinnaru water from Kodungarai Pallam, Water from Orathi falls and Ayasamy falls are the main sources of water in this study.

K. Murali and Dr. R. Elangovan (2013) in their research study *Assessment of Groundwater Vulnerability in Coimbatore South Taluk, Tamilnadu, India, the research study focused on the u*sage of drastic approach assessed the groundwater vulnerability using drastic model in GIS environment has become more widespread for effective groundwater resource management. Thangavelu, (2013) in his research *Mapping the groundwater quality in Coimbatore city, India based on physico-chemical parameters* discussed the development of irrigation activities, industrialization, and urbanization it mainly focuses on mapping the quality of groundwater using Geographical Information System (GIS) software.

Priya K.L et.al (2011) in their research *Ground Water Quality in the Singanallur Sub-Basin of Coimbatore City* studied the practice of sub - basin ground water quality, its sustainability for drinking, irrigation as well as domestic usage. It also focused on the unscientific practice of agriculture and disposal of domestic and industrial waste into water bodies. Yuvaraj et.al (2010) in their work *Analysis of drinking water problem in Coimbatore City Corporation, Tamilnadu, India* studies the Remote Sensing and GIS tools and also analysed the drinking water need for livelihoods and for other consumptions. M. Lenin Sundar and M. K. Saseetharan (2008), in their study *Ground Water Quality in Coimbatore, Tamil Nadu along Noyyal River*, analyzed the ground water quality in Coimbatore along with the Noyyal River and highly concentrated on the pre - and post - monsoon season to access the quality of water for irrigational and industrial activities for electrical conductivity too. K. Palanisami, et.al (2008), *Stabilization Value of Groundwater in Tank Irrigation Systems,* in their research work studied the sustainability of ground water management and many steps to improve the system efficiencies through tank modernization strategies involving the water users' organizations / associations.

1. OBJECTIVES OF THE STUDY

- To understand and develop the best Ground Water Management (GWM) strategy to resolve its issues; and

- To analyze the GWM developmental techniques and challenges for the improvement of quality water management and supply of drinking water in Coimbatore.

2. HYPOTHESIS OF THE STUDY

- **H_{01}:** Best Strategy Management techniques to develop and to improve the Quality Ground Water level which strongly influence the sustainability of environment in Coimbatore

3. SAMPLE DESIGN

The Multi Stage Sampling method is used for the present study based on the GWM in the selected area. In the first stage, the areas are selected based on the availability of GWM level. GWM is used for various aspects such as irrigation, agriculture, domestic purposes etc. To develop the effective Strategic Management (SCM) techniques in the Geology to improve the GWM are considered for this study. Second stage District wise selection is done, where in Tamil Nadu, Coimbatore district is chosen and in the third stage, the study concentrated on application to increase the GWM level and their Strategic Management (SM) in Coimbatore. The sample for the study is chosen from Tamil nadu Water Development Board (TWDB) statistics, official members of Water Resource Management Board and general public in Coimbatore and the number of respondents are 72 from various groups among the general public.

4. STATISTICAL TOOLS AND TECHNIQUES

The present study has used percentages and Structural Equation Model (SEM) - Amos (Analysis of Moment Structures) (IBM version 20.0) is used which is an easy-to-use program for visual SEM. With Amos, you can quickly specify, view, and modify your model graphically using simple drawing tools.

5. PERIOD OF THE STUDY

The study covered a period of one year from September to December, 2017.

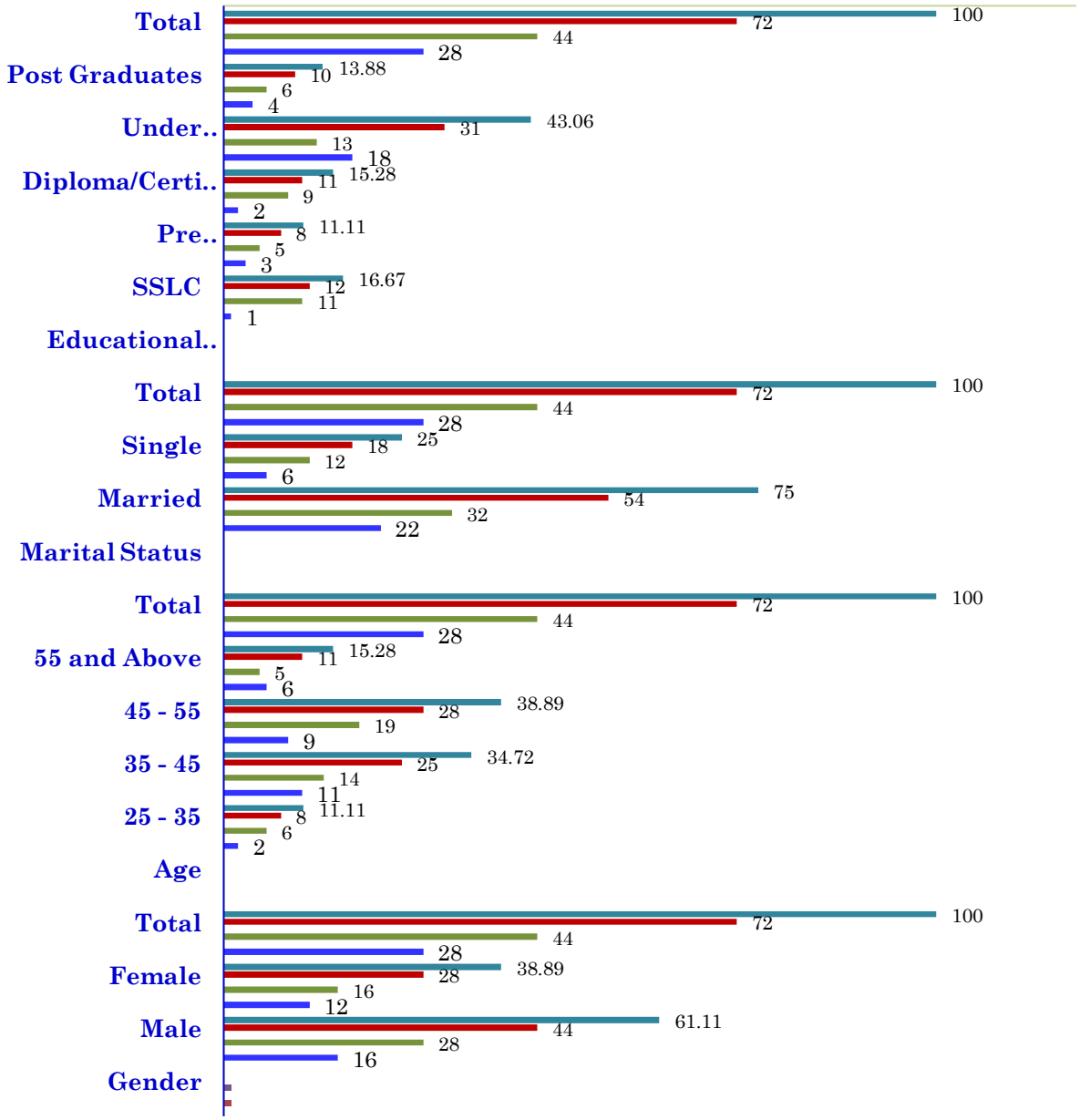
6. SOURCES OF DATA COLLECTION

Primary data for the study are collected from the selected respondents in Coimbatore inclusive of general public Water Development Board (WDB) and their employers, researchers and societal concern towards the Water Resources Management the in Coimbatore District. **Secondary data** are collected from books, journals, research papers, newspapers, on-line sources, Reports of Water Resource Management, TWDB, India statistic, and University Library resources (Both offline and Online sources) etc. The produced ground water related data base could help as information source to institutions, researchers, ground water practitioners, drilling companies and decision makers etc. Evaluation of ground water quality of Coimbatore district as per ISI and WHO standards, Arc GIS 10: Digitization and Mapping, Spatial Analyst – Extension, Interpolation. Land use and the environment, and to prevent ground water quality deterioration through proper monitoring and evaluation.

7. ANALYSIS AND INTERPRETATION

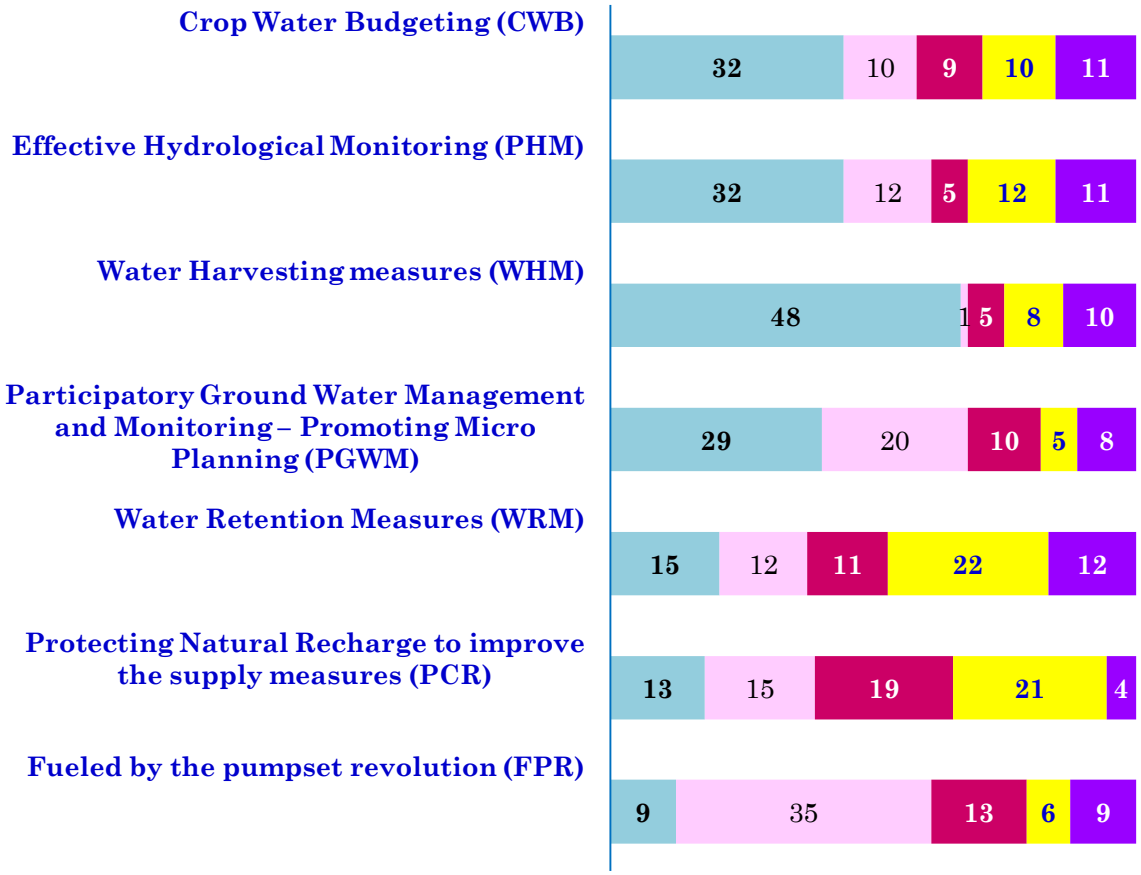
The present study focused mainly on the Strategic Cost Management and its effective implementation in the CUB, Coimbatore. With the help structure questionnaire, the collected data is presented here.

Chart – 1: Socio - Economic Profile of Respondents



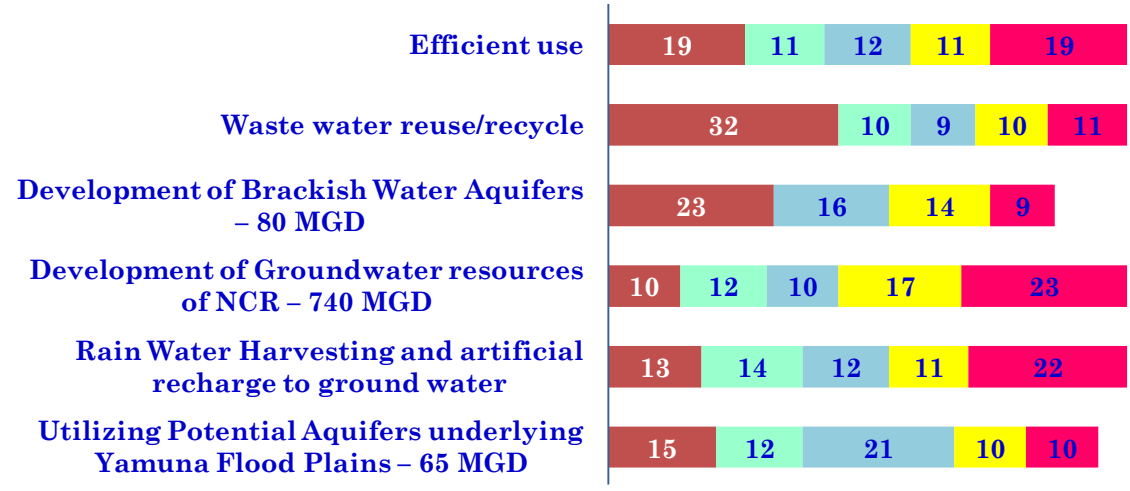
Source: Survey Data, 2017, N – Number of samples, Sample size: N – 72

Chart – 2: Awareness of Ground Water Management, Water Resources and Development Strategy to increase the level of Water



Source: Survey Data, 2017, N – Number of samples, Sample size: N – 72

Chart – 3: Effective usages and Ground Water Management and EUDevelopment and Development Strategy



Source: Survey Data, 2017

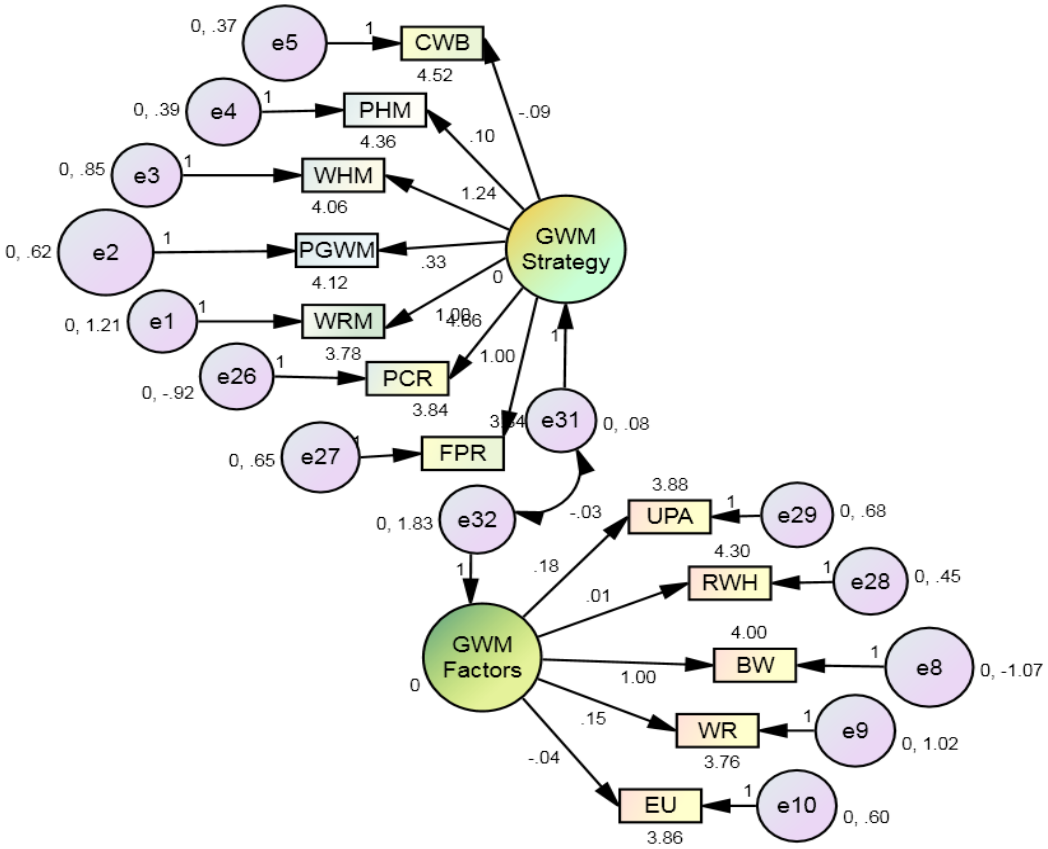
8. TESTING OF HYPOTHESIS

It is a proposition formulated for empirical testing, a tentative descriptive statement that describes the relationship between two or more variables. In the study the hypotheses taken are:

- **H_{01}:** Best Strategy Management techniques to develop and to improve the Quality Ground Water level which strongly influence the sustainability of environment in Coimbatore

Model – 1: Best Strategic Management techniques strongly influence to improve the Quality of Ground Water Management in the Coimbatore

[GWM level to improve the sustainability of Environment]



RESULTS AND DISCUSSION

Table – 5: Summary Results of Measurement Model

Model	X^2	df	P Value	RMSEA	PGFI/ PCFI	NNFI	CFI	RFI	CMIN/DF
H_0	494.634	96	0.000	0.019	0.799	0.279	0.899	0.154	1.862

Source: Survey data, 2017

The Chi-Square (X^2) value of 494.634 with the 96 degree of freedom is at the 0.05 (5%) significant level: its p – value is 0.000. This finding suggests that model fits the data acceptably from selected stakeholders of Universities in Coimbatore district. Corroborating evidence is

provided by the RMSEA fit statistics 0.019 the obtained value of 0.008 is less than the cutoff 0.08. Similarly, the Tucker Lewis Index (TLI)/CMIN - DF result of 1.862 is considerably above the 0.95 threshold denoting satisfactory model fit.

In the above Model – 1, Ground Water Management Strategic techniques and its applications in the Coimbatore causes the scores observed on the measures variables regarding GWM and its efficacy in distribution, supply of quality water for various activities to improve the quality of the Ground Water level in the district. The impact factors of the GWM techniques and is drivers influencing on the quality of Ground Water level are represented by single-headed arrows in the path diagram. Since the chi –square test of absolute model fit is reported, along with its degrees of freedom and probability value.

9. CONCLUSION

To recapitulate, the Ground Water Management (GWM) techniques, strategy, factor influencing strongly affect the quality of Ground Water level in various aspects. The various strategies were uses to improve the proficiency through SM on the Water Resource development in Coimbatore. Currently, it could be suggested that to improve the strategic foresight and strategic vision is hampering the growth and development of better GW level to increase the GW level. Efforts should be taken to resolve ground water problems. The purpose of this research is the development of a new methodology and strategy to resolve the issues relating to GWM and its awareness to water management into society at the early stage of a groundwater revolution at a local groundwater management level.

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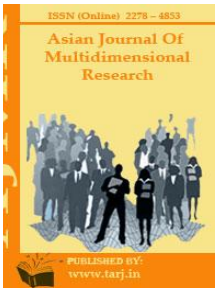

Asian Journal of Multidimensional Research (AJMR)

(Double Blind Refereed & Reviewed International Journal)

UGC APPROVED JOURNAL

ENVIRONMENTAL IMPACT OF BACKWATER TOURISM : WITH SPECIAL TO KUMARAKOM, KOTTAYAM DIT. KERALA

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ABSTRACT

This paper examines the environmental impact of backwater tourism in Kumarakom region. Vembanad wetland is the largest wetland ecosystem of the south west coast of India. The lake is a popular tourist destination and land surrounding it is highly sought after for development. Some voice concern that development could affect lake water quality negatively and threaten future regional growth. Backwater tourism in Kumarakom is gaining much attraction and importance nowadays.Of all the stake holders ,the host local community in Kumarakom has great influence on the development and sustenance of tourism activities in their place .Their perception on tourism have far reaching consequences which affect themselves and the backwater tourism industry in Kumarakom. The results of the study show that the environmental impact of back water tourism is medium which means that there are negative effects on host community from their perceptions. At this point the research methodology contains a combination of qualitative and quantitative forms of enquiry, also called as 'triangulation'.
Thoughtless visitors, their pet animals, and overuse of natural resources may disrupt wildlife by disturbing their breeding cycles and vary their character. These negative effects of backwater tourism not only vitiate the healthy tourism concept in Kumarakom but also it leads to the ultimate destruction of the estuary ecosystem of Vembanad Lake.

KEYWORDS: *Environmental, Tropical, Perceptions, Triangulation*

INTRODUCTION

Vembanad wetland is the largest humid, tropical wetland ecosystem of the south west coast of India. It is a complex system of backwaters, marshes, lagoons, mangrove forests, reclaimed land and an intricate network of natural and manmade canals. Tourism industry in this belt is now flourishing well especially in Kumarakam, Alappuzha and Kochi, of which Kumarakam has the top tourism potential. As a result, many new tourism facilities (like resorts and hotels) are coming up without any care or concern to the natural system or culture or heritage of the area.

The damage to the environment caused by the build-up of sheer number of tourist and poor planning in tourism development are grave.The price to be paid for poor planning include water/noise pollution, disruption of fish breeding areas, reduction in fish catching, soil erosion, loss of biodiversity, spoiling of natural scenery etc.Tourism is notorious as a destroyer of fragile mountain eco systems in the Alps, Himalayas and Nilgiri hills.

The environmental issues can be traced to the pattern of development which is based on the utilisation of natural resources for maximizing the net returnsbased on 'conventional exploitative strategy'.However sustainable development is inevitable for long term economic growth.The concept of sustainable development is that economic development is ultimately dependent on the environment and that economic development can be sustained only if development is modified to take into account the environmental and social considerations. The concept of sustainable development is emerged out of the ever increasing concern and awareness among the Governments for the environmental decay, depleting natural resources, and increasing poverty that threaten the very survival of men and other living things.Environmental considerations do not merely refers to the control of pollutions,but the maintenance of the environmental quality of long run productivity of the natural systems so as to sustain the increases in welfare derived from them. Based on the information gathered from the secondary data, it is decided to study the factors that contribute to the perception of local residents about the various environmental impacts of tourism in Kumarakom. The study aims to discover the underlying motives, desires, and experiences of people on various environmental impacts of tourism in Kumarakom by in-depth interviews. Those experiences can also be expressed in terms of quantity by an extensive survey. At this point the research methodology contains a combination of qualitative and quantitative forms of enquiry, also called as 'triangulation'.

OBJECTIVES OF THE STUDY

To study about the perceptions of residents on the environmental impact of backwater tourism in Kumarakom.

HYPOTHESIS OF THE STUDY

Ho: The perceived environmental impact of backwater tourism in Kumarakom region among the local residents is high.

H1: The perceived environmental impact of backwater tourism in Kumarakom region among the local residents is medium.

RESEARCH METHODOLOGY

The collection of data was based on systematic sampling among the residents of Kumarakom. The statistical techinique used in the study for analysing the primary data include Coefficient of variation, Mean percentage score and one sample z -test.

REVIEW OF LITERATURE

Maria Alina Radulescu, (2014) attempts to make a contribution by examining local residents' perceptions and attitudes towards second home tourism impacts and tourism development in Cheia (Romania), a mountainous village that transformed into a second homes hotspot in the last twenty years.

Ashish Varughese, (2014) analyses the marketing activities, the various problems faced by tourism service providers and the perception of tourists towards backwater tourism in Kerala with the help of primary data. The analysis by using Garrett's ranking shows that parking of boats, unhealthy competition and lack of Government support were the first three main problems faced by the houseboat operators.

Brent D. Moyle, Betty Weiler, and Glen Croy, (2013), ascertain that tourism can have positive and negative economic, environmental and socio-cultural impacts. Previous research has focused on residents' perceptions of these impacts with little emphasis on those of the visitor, resulting in a lack of theorizing and empirical investigation into how visitors perceive and evaluate their impacts

Vincy M.V., Brilliant Rajan and Pradeep Kumar A. P. (2012). Conducted a study on backwater tourism in Kerala and found that degradation and loss have reduced the capacity of wetlands to provide sufficient amounts and quality of water. The continued degradation of wetlands, and more specifically the continued decline in water quantity and quality, will result in further impoverishment of human health especially for vulnerable people in developing countries. The waterborne pollutants (chemical and microbiological) have a major effect on human health and chemical pollutants accumulate in the food chain to the point where they harm people

Farid Golzardi, ShabnamSarvaramini, Kamal sadatasilan and MahsaSarvaramini (2011) infer that tourism is an increasingly important source of income, employment and wealth in many countries. Its rapid expansion has, however, had detrimental environmental (and socio- cultural) impacts in many regions. The current study investigates the perceptions of residents in a Niasar, where tourism is not well developed although the areahe result of factor analysis showed that four factors named as Economic impacts, Social and cultural impacts, Environmental impacts, Developmental and other issues explained 76.21% of variance of perceptions of residents. Results showed that Responder have positive perception to tourism.

Erik Lund berg, (2011) develops and applies a framework based on sustainable tourism development in order to evaluate economic, socio cultural and environmental impacts. The Triple Bottom Line-model (TBL) is chosen as the most suitable framework. Adapting and developing this framework and linking it to other theoretical concepts such as Carrying Capacities and Capital constructs is one of the thesis' contribution. The results show that TBL is a step forward when doing more holistic evaluations of tourism impacts, but more research is needed in order to find ways of comparing the results of the different impact dimensions.

Latha Bhaskar (2011) identifies that due to prolonged anthropogenic interventions in the name of development, the Vembanad wetland is facing increasing deterioration. Protection, conservation and management of the lake and its resources, through coordinated efforts of all stakeholders, are vital for restoring this fragile ecosystem

Ping TsanHo, (2011) proposes a systematic approach to evaluate resident's attitude to tourism impact management strategies. Research results showed that local residents were most concerned

about negative changes in environmental conditions, but welcomed positive outcomes of economic improvement. This study further examined resident perceptions of management strategies for concerned tourism impacts

Susanne Kytzia, ArianeWalz and MattiaWegmann (2011) found that many successful tourist destinations face the problem of approaching the limit of their growth potential. Solutions to this problem commonly refer to the idea of "smart growth" based on increasing efficiency in the use of nature for economic production (eco-efficiency). In this paper, they showed how eco-efficiency can be used to evaluate tourism strategies on local scale based on an augmented regional input–output model that delivers information on economic performance, land use (as indicator for environmental pressure), and employment.

According to Leena Mary Sebastian and Prema Rajagopalan (2009) the lack of benefits from tourism, backwater pollution by houseboats and hotels and the socio-cultural and livelihood challenges triggered by tourism have generated anti-tourism attitude in Kumarakom. The construction of accommodation establishments on the banks of the Vembanad Lake rendered backwater inaccessible to the Fisherman and Shell collectors

Data Analysis, Interpretation & findings of the study

The natural environment at a destination has a close relationship to the tourism industry. Often it is the environment that attracts tourists, but tourism stakeholders commonly overlook the importance of the local environment when their goal is capturing economic gains. Therefore, the deterioration of the environment should be the first sign of trouble for a host community offers a broad definition of the environment as comprising "all the natural and cultural surroundings of people".

The respondents are asked their opinion in the seven point Likert scale regarding their views on economic impact. The responses are scored as 1 for 'Strongly disagree', 2 for 'Moderately disagree', 3 for 'Disagree', 4 for 'No opinion', 5 for 'Agree', 6 for 'Moderately Agree' and 7 for 'Strongly agree'. The score of all 600 respondents is found out, based on which the mean % score is calculated [MPS=(MeanScore×100)/Maximumpossiblescore] of economic impact. The following table gives the Mean, SD, Mean % Score and Z value of the variables considered.

Table 1 Mean, SD, Mean % Score and z Value for Environmental Impact

Variable	N	Mean	Std. Deviation	Mean % score	CV	z	p value
Environmental impact	600	21.52	7.01	61.49	32.58	-16.526	<0.001

The mean percentage score for Environmental impact is 61.49% which indicate that the Environmental impact of backwater tourism is medium and the CV indicate that this score is not stable as the value is greater than 20%. To test whether the sample information that is observed exists in the population or to verify that the Environmental impact of backwater tourism is high or medium, we formulate the hypothesis

Ho: The perceived environmental impact of backwater tourism in Kumarakom region among the local residents is high.

H1: The perceived environmental impact of backwater tourism in Kumarakom region among the local residents is medium.

To test the above hypothesis we use one sample Z test and the result is exhibited in Table 1. From the table the calculated value of Z is -16.526 which is less than the tabled value of -1.645 indicates that the test is significant. So it is concluded that the Environmental impact of backwater tourism is medium in Kumarakom which means that more negative impacts are perceived by the residents of Kumarakom.

Places blessed with natural resources like oceans, lakes, waterfalls, mountains, flora and fauna are the most preferred locations for tourism industry. When too many people visit these places may produce air, water, soil, sound pollutions to that place. Constructing hotels, restaurants, offices, other attractions to cater the needs of visitors may spoil the beauty of places and disturb natural tranquillity. Tax collected from tourists could be used for cleaning, repair, maintenance of these places. These would be beneficial for both the natives and tourists alike. Visual proliferation by billboards and buildings may affect the natural beauty of the place. When people begin selling certain plants, animals, rocks, corals, fossils, or historical artifacts, which are the main attraction of a flora and fauna without thinking, may ruin its importance and authenticity. Thoughtless visitors, their pet animals, and overuse of natural resources may disrupt wildlife by disturbing their breeding cycles and vary their character.

CONCLUSION

It is a matter of grave concern that the environment gets polluted by Backwater tourism in Kumarakom. The problems of pollution include Degeneration of overall environment, Imbalanced water quality degradation and mixing of polluted water into main canals and stream, throwing of solid waste, Liquid waste and Sewage disposal from house boats etc. These negative effects of backwater tourism not only vitiate the healthy tourism concept in Kumarakom but also it leads to the ultimate destruction of the estuary ecosystem of Vembanad Lake.

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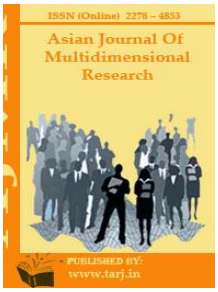

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ENVIRONMENTAL ISSUES AND HOW IT SHOULD BE DEVELOPED IN INDIA

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ABSTRACT

India is the growing population country in the world and it is the primary cause of our country's environmental dreadful condition. Because of the population the country is facing many numbers of challenges now a day. The paper also discusses about the environmental issues and development that is related with environmental degradation, public health, loss of biodiversity and loss of resilience in ecosystem. It also explains about the Deforestation, Global Warning, Pollution, and Politics. It is necessary to give the awareness campaign for the young generation to overcome the fourth coming issues. Technology and Innovations is not environment friendly for all living things in the country because technology should also be used in a limited level. The statistical data says that the pollution rises in India within these5 years. The environmental view focused on the underlying forces that are affected by the environment and the human population, the message of ecology being one of creation and stability between social, physical and human systems. The step to developing our country is in the hands of each and every citizen. We the people of India have been polluting the country for so many years and now we are responsible to develop our country. There is more technology introduced in agriculture farms. Even though there is more technology introduced the farmers are struggling to make agriculture in a successful way.

KEYWORDS: *Technology, Innovation, Environment, Deforestation & Ecology*

INTRODUCTION

Environmental Issues are any such issues created due to human activities and they cause damage to the environment and it is also developed by the same people. In India,the people are facing many environmental issues in their day to day life. These situations have become worse during 1995 through till date and the government is trying to stabilize the environment. India has to undergo a tedious process to reach environmental quality similar to those enjoyed in developed economies. It was being noted that the most serious problem in the affairs of human beings expanding our population, food scarcity, environmental toxic waste and sociological and political distress. The relationship of individual being with natural world and surroundings had undergone a magnificent change over years. The farmers are affected because of this environmental hazardous and the soil'sfertility comes down.

India is facing various natural hazards, predominantly in cyclones and annual monsoon floods, and various levels of poverty, population growth, increasing individual consumption, industrialization, infrastructural development, and poor agricultural practices that led to a substantial human revolution of India's natural environment.It is important to get the country acquainted with these issues and challenges so that their acts may be eco-friendly in nature.

METHODOLOGY

Secondary data was used to identify the Environmental Issues and development in India. Data were collected from research papers, literature surveys, and official websites.

Statistical Data on the Environmental Issues:

According to the statistical data there are some of the Issues to be noted:

Issues	Statistical Data Estimation
The cultivated land suffers from soil erosion, water logging, and salinity.	60 percent
Topsoil is lost annually from soil erosion.	4.7 and 12 billion tons
The average number of annual per capita water availability declined by	70 percent to 1,822 cubic meters,
An overexploitation of groundwater	Haryana, Punjab, and Uttar Pradesh.

- Now a Days Forest cover is declining because of harvesting for fuel wood and the expansion of agricultural land. [Source: Library of Congress, 2004*]

Major Environmental Issues and Development Faced In India

- **Growing Population**

As more lands are used for living purposes the environment changes drastically. In India the population is growing atfaster and faster. So that there are two main things that affect the size of the population in India.

» Birth rate – per year the born babies are thousand in numbers
» Death rate- the number of deaths are thousand at each year

- **Poverty**

The biggest enemy in the developing country is poverty, even though India's economy is growing their wealth distribution is uneven. There are two ways of poverty i.e., Relative Poverty and absolute poverty. 26 percent of India is below the poverty line. The poverty mainly arises in rural areas because of their wealth. As per the data, one half of India's poverty is located in the three states of Uttar Pradesh, Bihar and Madhya Pradesh.

As per 2007 report of National Commission for Enterprises in the Unorganized Sector (NCEUS) found that 25% of Indians or 236 million of People lived on less than 20 rupees per day.

- **Agricultural Growth**

Our Indian agriculture has made a rapid turnover since independence. Although it contributes only 15% of GDP, the share of Workers is about 55% only. Agriculture accounts for almost 60 per cent of aggregate employment in India. Because of deforestation, real estates, etc, there arises the little rainfall for irrigation. There is more technology introduced in agriculture farms. Even though there is more technology introduced the farmers are struggling to make agriculture in a successful way.

- **Need of Ground Water**

Ground Water is essential to safeguard the use of groundwater. Factors like community wastes, industrial effluents and chemical fertilizers and pesticides have polluted our surface water and affected its quality.It is the water that flow through rocks and soil and is stored beneath the ground. The stage of ground water development is very high inthe states of Delhi, Haryana, Punjab and Rajasthan, where the development of ground water is more than 100%. The river water and rain water should be stored in a correct procedure so that there will be a sufficient use of water in future.

- **Evil Consequences of Urbanization**

Urbanization begins with demolishing the natural resources. The natural, as well as our traditional culture have been changed and forgotten. The initial step of urbanization is deforestation dry lakes are converted into living area. Constructing building in the dry pond and lakes cause an extreme level of impact while raining and the water gets stagnated without the outflow. Cosmopolitanism is back in India, for some people it is a good one but for some it is bad

- **Pollution**

Population and technology is the introduction of pollution in India. In fact water, air, noise pollution are all threatening the survival of living beings. There ismore pollution but in India Airand Water pollution plays the main role.

The World's Most Polluted Cities are in India

STATES	POSITION
Delhi	153
Patna	149

Gwalior	144
Raipur	134
Ahmadabad	100
Lucknow	96
Firozabad	96
Kanpur	93
Amritsar	92
Ludhiana	91

The list of Areas which are affected by pollution are as follows;

AIR POLLUTION:

1. Delhi- world's most polluted city (11 among 103 countries)

- It had emerged as the most polluted city in as per WHO's 2014 database
- To control the Air pollution the government issued a press statement states that "The decline in air pollution levels in Delhi is a collective effort of government as well as by the residents too".

According to the information issued by the government, there is an awareness about pollutants and the action towards control of emissions from different sectors from 2016- 2017.

2. Kanpur, Varanasi and Chennai precede after Delhi in pollution. Chennai had the highest level of air pollution than in Delhi, it is hard to breathe.

WATER POLLUTION:

The basic necessity of a living being is water, but it is polluted by different criteria. The important river systems in the north like Indus, Ganga, and Brahmaputra are facing a huge level of pollution.The Holy Rivers of India succumbs to pollution.

- 80% of our surface water is polluted as per the report of the international body.
- The other information says that 80% of Indian sewage flows are untreated into our country's rivers polluting the main sources of drinking water.
- In Indian cities, 40,000 million liters are treated as sewage waste.

Fresh Water	2.7 Percent out of water available
Saline Water	97.3 Percent
Water exists in Rivers	(2.7%) 0.003 percent

REMEDIES

- Energy Efficiency and Renewable Energy in Low Income Communities
- Environment Justice
- Healthy Schools

- Improving the Air Quality by growing the sapling
- Common vehicle should be used

CONCLUSION

The government is taking the respective steps to overcome the different environmental issues with which the country is facing today.Swachh Bharat was introduced by the government in 2014 for the welfare of the country and it is also called as the development step. We have polluted our country with air, water and land, depleting its resources. The emergence of industries and another level of the population have destroyed the wealth of the nation. The step to developing our country is in the hands of each and every citizen. We the people of India have been polluting the country for so many years and now we are responsible to develop our country. Voting is the basic rights for a human being likewise, to develop our country without pollution, Global Warming, Overpopulation, Natural Resources Depletion, Waste Disposal, Climate Changes, Loss of Biodiversity, Deforestation, Ozone Layer Depletion. Many CSR activities are held to overcome the problem.

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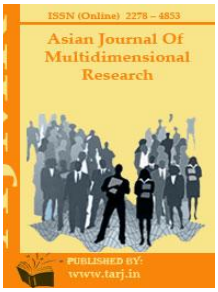

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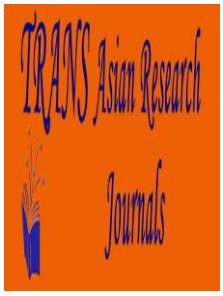

TRANSFORMINGSEGMENT DESCRIPTION INTO PRODUCT STRATEGY IN FINANCIAL SECTOR FOR SUSTAINABILITY – INVESTMENT BEHAVIOUR OF EQUITY INVESTORS

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ABSTRACT

Equity Investment is the primary mode of conversion of savings into capital formation. The household savings in India is 30% one of the highest in the World. When it comes to equity investment the scenario is different and only 18 million out of the total population invest in equity investment. Empirical evidences highlight that there are many factors which influence the interest in equity investment viz., demographic, psychological, economical, sociological etc., An understanding about the investment behavior of equity investors would help in segmenting the investors and also to pattern the investment interest which would help the investment advisors and wealth managers in designing customize products catering the needs of different segments of the society. In order to aid better capital formation Mutual Fund Products are focused to various segments and the mutual fund firms have focused on segment customization to sustain competition in the finance industry. Yet every research on this domain provide new insights and in this respect the influence of demographic factors on investment in different asset class using chi square analysis among individual equity investors is analyzed. It is found that gender, age, education and occupation has significant influence on investment in different asset class.

KEYWORDS: *Demographic factors, investment in different asset class, market segmentation.*

INTRODUCTION

As an individual, every investor possesses their own perception and approach in investment decisions. Therefore, financial advisors and wealth managers find it very difficult in assessing and providing customized investment solutions to their clients. This seems to be a challenging task not only for the advisory service providers, but also the individual investors face the ultimate loss, when the reasons for their irrational decisions are not been identified either by themselves or by the advisors. Hence, the present study is justified as an attempt to study the impact of certain subjective factors namely demographic characteristics on investment behavior. An understanding of the demographic segmentation and investment decision towards various riskier asset class would give financial firms to design the products catering the risk acceptance of each segment.

REVIEW OF LITERATURE

Reviews on research and literature support to refine the research question, methodizing the research proceeding and synthesizing the results.Sulaiman (2012) on the analysis of different demographic factors of individual investors with their financial risk tolerance indicates that the demographic features of individual investors could be used to distinguish between levels of financial risk tolerance, and an association of these variables could be developed to predict a person's risk-tolerance. Heaton and Lucas (2000) report a positive relation between investor's age and percentage of equities in portfolios which means aged people take more risk. Further, Donkers, Melenberg and Soest (2001) studied risk aversion in a large survey with Dutch households and found that age affects negatively the willingness to take risk. Poterba (2001), Poterba and Samwick (2001) found no significant relationship between investor's age and the percentage of equities in investor's portfolio. Ameriks&Zeldes (2004) findings prove that the share of risky assets tend to reach its peak between age 49 and 58.The present study has identified investment in different asset class based on the level of risk, portfolio diversification and trading frequency as the variables to measure the investment behaviour.

Bodie and Crane (1999) and Strong and Taylor (2001) identified people rebalance their portfolio in favour of fixed income securities as they get older. The logic is that as people age they are more risk averse and hence prefer to invest in less risky assets. Young investors, unlike older investors, can adjust their current consumption downward and use some leisure time to compensate for losses in portfolios which is not possible by aged people.

Female investors are more risk averse than their male counterparts which is demonstrated by their more conservative investment behaviour. This claim is evidenced by a smaller number of market enquiries, lower trading volume and lower frequency of transactions attributable to females (Gelnier and Boris, 2007). According to Haarala (2008), in Finland men have been found to be more willing to take risk with their invested assets than women. Frijns, Koellen, and Lehnert (2008) in their research evidence men are risk seekers than women.

Hallahan et al. (2004)[125] also find support for the non-linear relationship between age and risk tolerance by adding age squared as an independent variable into their regressions. Summers, Duxburg, Hudson and Keasey (2006) found that investors become more risk seeking with age. A contradictory result of lack of relationship between age and equity proportion in portfolio is shown by Feng and Seasholes (2007)

Educational qualification is found to be another demographic factor which impacts financial literacy and confidence level of investors. This incidentally impacts investment behavior is highlighted in empirical researches. Baker and Haslem, (1974) studied the evidence of formal education influencing risk tolerance. Evidence of well-educated individuals being more likely to be risk taking financial investors was also found by Mankiw, Gregory and Zeldes, (1991) , Sung and Hanna (1996),Haliassos and Bertaut (1997) Schooley and Worden (1996) reported that American investors with high-school diplomas tend to hold portfolios heavily biased towards fixed-income securities, which are seen as less risky than equities. These two variables explain individual's different levels of risk tolerance. Grable and Lytton, (1998) confined that a person's level of formal education has been found to influence risk tolerance.

According to Friedman (1974) wealth and income are expected to correlate positively with individuals' risk taking attitude. Positive pattern between income of individual investors and their financial risk tolerance has been observed (Cohn et.al.,(1975), Cicchetti and Dubin, (1994), and Kathryn (1996). Schooley and Worden (1996)[27] conducted a study among American families and reported that wealthy people are more conservative with their money, whereas people with low levels of personal wealth are willing to take more risk.

METHODOLOGY

Descriptive research approach is followed asthe study is to find out the investors behaviour and influence of demographic factors on investment behavior. Coimbatore is considered to be the right destination to do research in the selected topic. AsCoimbatore has diversified population, income and standard of living of the people being in a higher side, also has scope for contribution towards corporate capital formation through participation in retail capital market. Further there are more than 120 share broking concerns in the city. The samples are the investors who possess a minimum of two years of equity investment experience, selected using snowball sampling technique.The data is collected from 478 samples using a questionnaire. Chi Square techniques is applied to test the following hypotheses.

H1-There is no significant association between demographic factors and investment in different asset class.

ANALYSIS AND INTERPRETATION

Demographic Factors and Investment in Different Asset class

It is evident from Table-1(refer annexure) that majority of the male respondents have high risk investment and female respondents prefer to invest in low risk asset class. The chi-square value is 8.368 and p value is less than 0.05. Therefore the hypothesis H1 is rejected. It is concluded that gender has association with investment in different asset class.

It is observed that the respondents who possess high risk portfolio are found more between the age group of 31-40 years and 41-50 years respectively. The respondents with low risk portfolio are more in the age group between 51- 60 years, above 60 years and 18-30 years. The chi-square value is 116.635 and is found to be statistically significant. Therefore the hypothesis H1 is rejected and it is concluded that age has significant association with investment in different asset class.

The chi square analysis concludes that, education has significant association with the investment in different class. The chi-square value is 24.104 with p value less than 0.05. Therefore the

hypothesis H1 is rejected. Further it is found that majority of the respondents with school level education invest in low risk investments and majority of the respondents with college level education and professional education have invested in high risk investments.

The occupational distribution of respondents on investment class reveals that self-employed, salaried and students have invested in high risk investment. It further depicts that the professionals and retired have invested in low risk portfolio. The chi-square value is 47.267 with significance value of 0.000 which is less than 0.05. Therefore the hypothesis H1 is rejected and it is concluded that occupation has significant association with investment in different asset class.

The chi square analysis from the Table 1 reveals that there is no significant association between monthly income and investment in different asset class. The chi-square value is 12.117 with significance value of 0.059 which is greater than 0.05. Therefore the hypothesis H1 is accepted. It is concluded that family monthly income does not significantly influence investment in different asset class.

DISCUSSIONS AND CONCLUSION

The chi square analysis reveals that there is significant association between gender and investment in different asset class. Majority of the male investors invested in high risk asset class than female investors. It is observed that female investors prefer low and medium risk investments. The study supports previous studies by Haarala (2008) that in Finland men have been found to be more willing to take risk with their invested assets than women. Prince (1993)[6] showed that overconfidence leads men to take more risk in financial matters. Bajtelsmit&Bernasek (1996) suggested that women choose to invest their financial resources more conservatively and are generally more risk averse than men. It confines with the study of Pompian and Longo (2004)[14], who reported that women are found to be 33% more risk averse than men. Also, it was found that men look at portfolios more often than women do and men are more likely to cut losses immediately, while women are more likely to buy and hold.

The age groups below 50 years are possessing high risk and balanced portfolio and the age group above 50 years possess low risk portfolio. This is because old people tend to be cautious about safety of their principal amount invested and do not want to have major proportion of riskier investment in their portfolio. The study findings is in line with the studies of Faff, Mulino and Chai(2011) who found that financial risk tolerance "declines at an increasing rate as age increases" and report that the risk tolerance of the retired is lower than all other demographic groupings. The finding are contradictory to Wang and Hanna (1997)[42] who documented that individuals risk tolerance increases with age and therefore rejected the constant life-cycle risk aversion hypothesis. Palsson (1996) studies found that the risk tolerance decreases with the age.

Occupation significantly influences investment in different asset class. Self-employed, salaried and students tend to invest in riskier asset class and retired and professional tend to invest in less risky asset class. The present study also supports John and Zeldes (2004) who found that the investors share of risky assets reaches its peak between the age 49 and 58. The above-referenced researchers point out that the potential reason for decreasing risk tolerance after retirement compared to younger people is the lower capability to withstand stock market volatility because of shorter investment period. Further, it might be the need to maintain the current life standards in retirement by using a part of accumulated wealth for consumption.

With regard to education, the investors who had school level education tend to invest in less risky investments, whereas investors with college level and professional education tend to invest in high risk investments. The findings are coherent with the study of Schooley and Worden (1996) who reported that American investors with high-school diplomas tend to hold portfolios heavily biased towards fixed-income securities, which are seen as less risky than equities. Further these finding lends further support from Christiansen, Joensen and Rangvid (2006) who found that investors with higher education invest a larger fraction of asset in stocks and bonds. The findings are in lieu with Grable and Lytton (1999) who documented that individuals risk tolerance is closely associated with their educational level and cognitive factors. These two variables explain individual's different levels of risk tolerance.

Family monthly income does not influence investment in different class. The majority among the investors who earn below Rs 45,000 invest in moderate and high risk class and majority among the investors whose income is aboveRs.45,000 invest in low risk asset class. This may be the intention of low income earners to earn more in short period tend to invest in high risk investments. The present study is contradictory to the previous studies that there is positive pattern between income of individual investors and their financial risk tolerance. (Cohn et.al.1975), Cicchetti and Dubin, (1994) and Kathryn, (1996).

The study establishes a pattern of investment behaviour in relation with factors and therefore typology of investors shall be derived through extensive researches. Modern investors and consumers of financial services are more demanding and wealth managers and financial service providers find their job more challenging in the midst of intensive competition. Given this scenario satisfying the clients for investment bankers and service providers are becoming very crucial. An understanding of the clients according to their goal requirement and risk bearing nature is significant to customize their services. Investor profiling and typography based on demographics would aid in segmenting the investors. This way of segmentation has greater potential for translating segment description into marketing strategy.

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ANNEXURE

TABLE - 1

DEMOGRAPHIC FACTORS AND INVESTMENT IN DIFFERENT ASSET CLASS: CHI-SQUARE ANALYSIS

Demographic Factors	Asset class			Total	Chi-Square	Sig at 5% level Low risk
	Low risk	Moderate risk	High risk			
Gender						
Male	105	105	171	381	8.368	0.039*
Female	41	23	33	97		
Total	**146**	**128**	**204**	**478**		
Age(In Years)						
18-30	13	10	12	35	116.35	0.000*
31-40	37	42	98	177		
41-50	17	26	79	122		
51-60	30	24	6	60		
Above 60 Years	49	26	10	84		
Total	**146**	**128**	**204**	**478**		
Occupation						
Self Employed	36	52	79	167	24.104	0.000*
Salaried	49	42	88	179		
Professional	18	7	10	35		
Retired	32	17	9	58		
Student	11	10	18	39		
Total	**146**	**128**	**204**	**478**		

Education						
School Level	30	15	10	55	47.267	0.000*
College Level	66	82	120	268		
Professional	50	31	74	155		
Total	**146**	**128**	**204**	**478**		
Family Monthly Income (in Rs)						
Below15000	34	24	48	106	12.117	0.059
15000-30000	44	49	89	182		
30000-45000	39	35	41	115		
45000 and Above	29	20	26	75		
Total	**146**	**128**	**204**	**478**		

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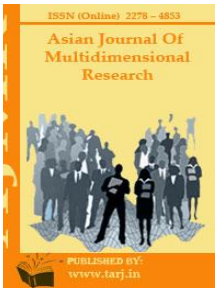

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AN OVERVIEW ON TRIBAL MIGRATION IN INDIA

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ABSTRACT

India is a pluralist country, with rich diversity, reflected in the multitude of cultures, religions, languages and racial stocks. The Indian population includes different castes, communities and social groups. The prevalence of such pluralism has made the social and economic opportunities are differently distributed on the lines of caste and class affiliations. At the geographical level also, India has equally pervasive and diverse features. The term "tribe" means, a group of people who live at a particular place from time immemorial. This study has made an attempt on understanding tribal migration using Secondary data from census, Government of India. Most of the tribal areas are hilly, inaccessible undulating plateau lands in the forest areas of the country resulting in the bypassing of general developmental programmes. They have a negative energy balance, high morbidity rate, and low child survival rate. They suffer from taboos and superstitions and remain deprived of the benefits from existing development and welfare programmes. This is a challenge for both rural and urban planners. Keeping in view that tribal livelihoods are conditioned by the eco-system and they are dependent on agriculture, large scale migration due to poor economic conditions is a serious cause of concern.

KEYWORDS: *Tribes, Migration, Social Groups, Economic and Government*

INTRODUCTION

India is a pluralist country, with rich diversity, reflected in the multitude of cultures, religions, languages and racial stocks. The Indian population includes different castes, communities and social groups. The prevalence of such pluralism has made the social and economic opportunities are differently distributed on the lines of caste and class affiliations. At the geographical level also, India has equally pervasive and diverse features. It has large tracts of interland, hilly terrain, a dense forest cover and fertile coastal belts besides Indo gang ethic plains. Such divergence in ecology and geography has ensured occupational and spatial differentiations, but the predominant occupation is agriculture, which is a major occupation of three quarters of Indians. Apart from a minuscule minority the rest live in the rural areas of India; almost 80 percent of India's population live-in rural areas.

India is the home to a large number of indigenous people (tribal), who are still unaware of the lifestyle of the modern world. With more than 84.4 million tribes in the world, India has the largest population of the tribal people in the world. The tribal people constitute eight percent of the total population of India. The term "tribe" means, a group of people who live at a particular place from time immemorial. Anthropologically the tribe is a system of social organization which includes several local groups- villages, districts on lineage and normally includes a common territory, a common language and a common culture, a common name, political system, simple economy, religion and belief, primitive law and own education system.

India is home to a third of the world's extreme poor (people living with less than $1.25 a day) Poverty measurement has generated many debates in the Indian public arena, and eradication of poverty has been a recurrent commitment from key political actors in the past decades. Latest estimations17state that it will take India 25 to 30 years to lift its poor above the international poverty line, and about 200 years to lift them above the $5 a day line. At present, while India's GDP annual growth rate is one of the highest globally (over 7% for 201618), it was estimated that 70% of the population is without access to proper toilets, 35% of households do not have a nearby source of water, and 85% of villages don't have a secondary school Among the poorest Indians figure the Scheduled Tribes, accounting for a great part of the rural poor of the country.

OBJECTIVE

- Socio Economic background of the Tribal Population in India
- Tribal Migration in India.
- Population of Particularly Vulnerable Tribal Groups in Southern states in India from 2001-2011:

Socio-Economic Background of Tribal

Scheduled Tribes (STs) are indigenous, have their own distinctive culture, geographically isolated and are low in socio-economic conditions. 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 as in the case of SCs. 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. Most of the tribal areas are hilly, inaccessible undulating plateau lands in the forest areas of the country resulting in the bypassing of general developmental programmes. Due to this, infrastructure and development facilities in tribal areas for education, roads, healthcare, communication, drinking water, sanitation etc.

lagged behind compared to other areas which has resulted in further widening the gaps of development between the tribals and the general population for a long time.

Table – 1
Tribal Population in India 2001 – 2011

State/UT Code	India/State/Union Territory	Percentage of Scheduled Tribes 2001			Percentage of Scheduled Tribes 2011		
		Total	Rural	Urban	Total	Rural	Urban
	India	8.2	10.4	2.4	8.6	11.3	2.8
01	Jammu & Kashmir	10.9	13.8	2	11.9	15.4	2.5
02	Himachal Pradesh	4	4.3	1.3	5.7	6.1	2.6
05	Uttarakhand	3	3.8	0.7	2.9	3.8	0.9
08	Rajasthan	12.6	15.5	2.9	13.5	16.9	3.2
09	Uttar Pradesh	0.1	0.1	0	0.6	0.7	0.2
10	Bihar	0.9	1	0.5	1.3	1.4	0.6
11	Sikkim	20.6	21.2	15.9	33.8	36.6	25.5
12	Arunachal Pradesh	64.2	69.7	43.4	68.8	74.1	51
13	Nagaland	89.1	93.7	67.1	86.5	92.8	70.8
14	Manipur	34.2	44.4	6.1	35.1	45.6	13.4
15	Mizoram	94.5	96.3	92.6	94.4	96.6	92.5
16	Tripura	31.1	36.5	4.7	31.8	41.2	5.1
17	Meghalaya	85.9	90.2	68.3	86.1	90.1	70.4
18	Assam	12.4	13.6	4.5	12.4	13.7	5
19	West Bengal	5.5	7.2	1.2	5.8	7.8	1.5
20	Jharkhand	26.3	31	9.8	26.2	31.4	9.8
21	Odisha	22.1	24.6	8.1	22.8	25.7	8.5
22	Chhattisgarh	31.8	37.6	8.4	30.6	36.9	10
23	Madhya Pradesh	20.3	25.8	4.9	21.1	27.2	5.2
24	Gujarat	14.8	21.6	3.2	14.8	23.1	3.5
25	Daman &Diu	8.8	11.1	4.9	6.3	12.6	4.2
26	D & N Haveli	62.2	74.9	19.4	52	82.4	17.2
27	Maharashtra	8.9	13.4	2.7	9.4	14.6	3
28	Andhra Pradesh	6.6	8.4	1.8	7	9.3	2.4

29	Karnataka	6.6	8.4	2.9	7	9.2	3.5
30	Goa	0	0	0.1	10.2	15.9	6.8
31	Lakshadweep	94.5	95.6	93.1	94.8	95.2	94.7
32	Kerala	1.1	1.5	0.2	1.5	2.5	0.3
33	Tamil Nadu	1	1.6	0.4	1.1	1.8	0.4
35	A & N Islands	8.3	11.9	0.9	7.5	11.3	1.3

Source: Census Government of India 2001 – 2011.

According to the 2001 Census, the population of STs is 84.3 million constituting 8.2% of the total population of the country. Chhattisgarh (31.8%) (has the highest percentage of ST population followed by Jharkhand (26.3%) and Orissa (22.1%). These proportions are in the lowest in Uttar Pradesh (0.1 %), Bihar (0.9 %), Tamil Nadu (1.0 %) and Kerala (1.1%). Madhya Pradesh accounts for the highest percentage of ST population to total STs population of the country (14.5 percent) followed by Maharashtra (10.2 per cent), Orissa (9.7per cent), Gujarat (8.9 per cent), Rajasthan (8.4 per cent), Jharkhand (8.4 per cent) and Chhattisgarh (7.8 per cent). 68 per cent of the country's Scheduled Tribes population lives in these seven States only. There are 75 districts in the country which have more than 50% ST concentration and in terms of villages there are 90,189 villages with more than 50% ST concentration. While 91.7% of STs live in rural areas, only 8.3% live in urban areas. ST population was 3.01 core representing about 6.9% during 1961 and this has reached to 8.43 core (8.2%) during 2001. 91% of the STs are rural based and the sex ratio among STs is 978 compared to national total average of 933 females per 1000 males.

Tribal Migration in India.

Tribal society is largely egalitarian and tribal women have been equal partners with tribal men in the contribution to household economy. Quite often their women do more physical labour in their agricultural fields and forest than that of the tribal men. Tribal women have usually enjoyed a higher social status in their own communities than Indian women in general. Some of the tribes in sub-Himalayan regions like Khasis of Meghalaya are matriarchal. As indicated earlier the socio-economic profile of tribals especially the tribal women is quite low compared to tribal men and general population and this is also associated with poor nutritional and health status among the tribals. Tribal's are engaged in various occupations like hunting, fishing, gathering of forest products, shifting cultivation to settled agriculture, rural crafts and artisans. A very few tribal groups are engaged in non-agricultural activities as mendicants, bards, pastoralists leading a semi-nomadic to nomadic life. Besides routine household work, the tribal women work in the agricultural fields, forests for long hours. The overall output if seen in terms of number of hours of work is low. Their schedule of long working hours continues even during pregnancy, natal and postnatal stages. They have a negative energy balance, high morbidity rate, and low child survival rate. They suffer from taboos and superstitions and remain deprived of the benefits from existing development and welfare programmes.

Most of the natural resources including minerals are located in tribal areas. Tribals are being alienated from their land and forest due to the ongoing de forestation, hydro-electric power generation, industrial growth and mining activities The natural resources are being exploited in a way, which leads to a process of gradual displacement and denying the basic right of livelihood

to the Adivasis. Massive investment in construction of dams, power plants, industrialization and mining create wealth to the nation and employment opportunities to various people but all this is hardly of any benefit to the tribal's rather it leads to their social and cultural deprivation, land alienation, destruction of environment and displacements, which is often without any rehabilitation. As per the Ministry of Rural Development large scale tribal land continues to be alienated in the States of Andhra Pradesh (2.79 lakhacres), Madhya Pradesh (1.58 lakhs acres), Karnataka (1.3 lakh acre), Gujarat (1.16lakh acres) during the beginning of the Tenth Plan and the settlement cases are not being disposed of easily. About 20.50 lakh persons inhabiting in forest areas most of whom are tribal's inhabiting for generations together have been deprived of their lands and traditional rights. Due to the recent enactment of the "The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006" the forest dwelling tribal's have claimed forest land and the state governments could able to give lands to only about 1.50 lakh persons. Migration to towns and cities often negatively influences the tribal culture and identity. In addition to dam construction and mining there are problems with access to forest resources where tribals neither have control nor any kind of participation in forests, which once were their abode and were one of the major sources of their livelihood.

Historically disadvantaged communities such as the Scheduled Castes, Scheduled Tribesand Other Backward Castes (OBCs) are heavily represented in migration. Before independence the out-migration of tribals to the urban and industrial cities was very meagre. This was due to the physical environment constraints. The limited needs of the tribals also did not motivate them to come to cities. After independence the picture has changed considerably. The change has been due to the implementation of Five-Year Plans and Annual Plans which resulted in tribal development. The directive principles of the state policy have made special programmes for the social, political and economic development of the tribals with the objective of integrating them at the various levels of rural and urban communities. Secondly, the safeguards provided by the constitution have made them available great opportunities of education, entrepreneurship and jobs in Government service and in organised sector.

Reservations in service have opened up new avenues for the tribals. The process of social mobility has given a high status to the tribal migrants. The implementation of development schemes for the tribals by different government departments has created a favourable ground for the immobile tribal population to undertake out migration to big cities. Migration of the tribal population from Jharkhand, Orissa, Madhya Pradesh and Chhattisgarh has been taking place since the last three centuries and more. In the 18th and 19th Centuries, the migration was forced as the British employed tribal labour to work in the Assam teagardens. However, since the latter half of the 20th Century, tribal people from these areas have started migrating voluntarily to earn their livelihood. In the last century, a noticeable change was visible in the nature and pattern of tribal migration. Between 1950 and 1980, tribal people migrated to the rural areas of Bihar, West Bengal mainly to work as agricultural labour (Mosse et al., 1997). But from 1980 onwards, they started migrating to bigger cities like Delhi, Kolkata and Mumbai. Another new feature of tribal migration from these states in recent years has been the large - scale migration of single women to cities in search of livelihood, which is a subtle change from the earlier migration patterns when only the men migrated to urban centres. Tribal families nowadays are driven by poverty to send unmarried daughters to cities in search of work. Single women and tribal girls are however, prone to exploitation not only by employers but also by anti-social elements.

A range and combination of push and pull factors drive circular migration particularly the tribals and tribal women in particular. Circular migration, or rural-urban migration, is emerging as a dominant form of migration amongst STs in India. Earlier studies reported that, an estimated 30,000 labourers migrate from Bolangir District in western Orissa every year (Deshingkar et.al 2008). The remote drought-prone and forested tribal areas of Madhya Pradesh show similarly high levels of out-migration. In the tribal districts of southern Madhya Pradesh, 65% of households included migrants. In Jharkhand, one study reported that, of twelve villages found that one-third of the households had at least one member migration. There are extremely high rates of migration among tribals from southern Rajasthan who migrate to Gujarat to work in seed cotton farms and textile markets. The incidence of migration was clearly growing in the area as a few years later another study in the same area found that in many villages up to three-quarters of the population were absent between November and June. Madhya Pradesh has ranked among the least developed states in India. It has the largest population of STs of all state. Migration has long been a livelihood strategy for tribals from the southern districts. Many migrate to the neighbouring states of Maharashtra and Gujarat. Until about 2005 the recruitment of migrant construction workers from this area was largely done by agents locally known as mukkaddams. Mukkaddams provide the labourers a cash advance to help the family left behind in the absence of the migrant. The advance is also used by the migrant to purchase essentials for the journey. The advances are repaid through migrant wages and the length of time that this takes depends on the payment that the migrant receives at the destination. The mukkaddam recruits migrants in groups who stay together at the destination. Living conditions at construction sites and working place of the migrant s are appalling and contractors provide only the most basic shelter. Harassment by the police, urban authorities and contractors is common to the migrants. Drinking water and sanitation are not easily accessible and girls and children left are highly vulnerable to disease, injuries and sexual abuse.

Tribal migrants have found jobs in factories, agro-processing plants or working asporters, domestic servants, bus cleaners, rickshaw pullers, street hawkers, petty traders, construction workers and domestic workers. Migrants are often willing to take on jobs that others cannot or do not want to do (those that are dirty, degrading and dangerous). The work is commonly poorly paid and insecure but it is very attractive to those from marginal areas where wages are too low to make a living. Income is one driver, with people migrating in search of paid employment. Early studies also reported that internal migration can lead to positive change in both sending and receiving areas (Deshingkar et.al 2006). Migration can help to reduce poverty or to halt the slide into poverty. It also helps tighten rural labour markets. There are many negative impacts of migration like loss of identity, culture, security, acute shortage of labour and high dependency ratios in sending areas. Mass male migration can lead to worsening poverty. People who are away for a long time may lose access to natural resources and lose their voice in community decision-making. Migration can also have a negative effect on collective action and natural resource management.

CAUSES FOR TRIBAL MIGRATION:-

Tribal Migration-poverty interface:-

There are three important constraints that perpetuate poverty among migrants in the Indian situation. These are:

1. Poor education,

2. Discrimination, and

3. A hostile policy environment.

In the case of tribal migrants, the literacy rate is low, not much is being done for developing skills and they do not have access to public facilities such as PDS in the place they migrate to. The State's apathy and lack of capacity to implement protective migration/labour laws compounds the problem. Moreover, the wage rate is very low. Circular/seasonal migration is the dominant form of migration of poor tribal people. They leave their village after completing agriculture work and migrate as casual, low skilled workers and return after completion of work. Since tribal migrants have little or no education and low skills, which translate into low marketable skills for both rural and urban employment, they form a part of the unorganized sector and have little bargaining power.

The poorest and deprived areas of the tribal belt in Central India such as Chhattisgarh, Telengana region, Jharkhand, southern Madhya Pradesh have become labour pools, from where cheap labour can be drawn on seasonally. Due to poverty and lack of employment opportunities, tribal families send unmarried daughters to cities in search of work. Single women and tribal girls are, however, prone to exploitation not only by employers, but also by anti-social elements. Migration is an important livelihood activity and research by Mosse et.al, in **the tribal districts of southern Madhya Pradesh revealed that 65 per cent of households included migrants, who worked mainly in the construction sector.** Migration grew in the area as a few years later, another study in the same area found that, in many villages up to three-quarters of the population were absent between November and June.

DISPLACEMENT:-

Development-induced displacement has resulted, not only in loss of land due to acquisition for the project but also in influx of non-tribal outsiders in these areas, who illegally alienate tribal land and take the benefits of the new economic opportunities in commerce, trade and industry. Migration of displaced Scheduled Tribes is indicative of Government's failure to provide livelihood in the new environment.

DEFORESTATION:-

Uprooting of tribals from their traditional habitat, receding forest cover combined with low agricultural productivity and rain-fed agriculture, create the need for credit and this leads to seeking employment and livelihoods under bondage, often through migration. For example, tribal migration from Jhabua in Madhya Pradesh and tribal areas of Chhattisgarh is a compulsion.181 Tribals in Jharkhand migrate in streams to the brick kilns of Uttar Pradesh or rice mills of neighbouring states to the agriculturally prosperous areas of Bihar, Bengal, Uttar Pradesh or Punjab mainly for sowing / transplanting/ harvesting of paddy and wheat and to the metropolitan towns and cities as domestic workers and maid servants.

DROUGHT:-

In contrast to seasonal migration, distress-induced migration is primarily the result of factors which include drought, land alienation, debts and high levels of food insecurity. This form of migration, which had increased in Kalahandi in the 1990s, is a final resort when other coping strategies fail. Such migration usually starts as early as September-October, when there is little possibility of harvesting a crop. Recruiting agents take the opportunity to recruit even cheaper labour than they can normally expect. Due to three successive droughts in 1996- 2000, distress-

induced migration had become 'seasonal' in character and an integral part of the regular coping strategies.183 A significant number of tribals, mainly from drought prone areas of Andhra Pradesh, Karnataka and Maharashtra, migrate to work in construction, tile factory, brick-kiln and crop-cutting in Maharashtra.

Costs and risks among a Tribal migration:-

Migration has both positive and negative consequences for migrants. While it saves them from starvation at home, it exposes them to appalling living and working conditions at construction and other work sites. Additionally, migrants also do not have access to pro-poor schemes such as subsidized food, health care and schooling and must pay for everything.

On the positive side, migration has given tribal people an exposure to the outside world including new skills. Their remittances have helped the family in consumption, repayment of loans, fulfilling social obligations and to finance working capital requirements in agriculture as well as investment in better housing and purchase of consumer durables.

On the negative side, they suffer from family and social disorganisation, harsh and unhygienic living conditions at work sites and physical and sexual violence in the case of female domestic workers. Empirical evidence collected by case- studies in tribal areas of Central India indicate that women domestic workers on their return to the village are viewed with distrust, as they show signs of having been influenced by an alien culture. Such women workers are exploited and harassed, when they migrate and are regarded with suspicion when they return.

CONCLUSION

Comparison made between tribal families who migrate and those who do not, reveals that the non- migrating families own more land comparatively and are in a better position to access and benefit from various development schemes available for them and so are able to improve their standard of living and educate their children. On the other hand, migrating tribal families have less land, lower level of literacy and on migrating, suffer from exploitation and harassment and low wages. They are able to stave off starvation, but do not earn enough to improve living standards. Moreover, their children do not get education and so the future of the next generation is equally bleak. Added to this, is the tendency of the unskilled youth to prefer employment in non-agriculture sectors, as farming does not give adequate returns. This is a challenge for both rural and urban planners. Keeping in view that tribal livelihoods are conditioned by the eco-system and they are dependent on agriculture, large scale migration due to poor economic conditions is a serious cause of concern.

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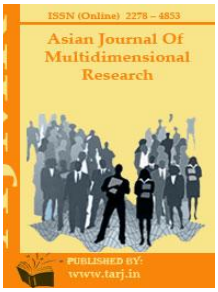

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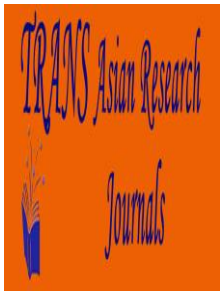

GREEN INFRASTRUCTURE AS AN IMPORTANT CATALYST FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Green infrastructure is an approach to water management that protects, restores, or mimics the natural water cycle. Green infrastructure is effective, economical, and enhances community safety and quality of life. It means planting trees and restoring wetlands, rather than building a costly new water treatment plant. It means choosing water efficiency instead of building a new water supply dam. It means restoring floodplains instead of building taller levees. Green infrastructure incorporates both the natural environment and engineered systems to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife. Growing awareness has made authorities and companies more conscious about the importance of protecting the environment and sustaining resources for future. Therefore, this paper tries to light the relevance, benefits, and strategies of going green in the highly prospective infrastructure sector of the economy.Furthermore, industry players are increasingly finding the implementation of green practices to be a commercially viable option as they are now able to curb escalating costs of construction. At this juncture, government support and dissemination of information are required to make Indian infrastructure sustainable. The Central Government has been quick in dealing with the hassels faced by most infrastructure companies while seeking approval for their projects. However, the environmental factors have been largely ignored while modifying the existing norms.

KEYWORDS: *Green Infrastructure, Ecology, Environment, Sustainability.*

INTRODUCTION

Green infrastructure focuses on the sustainable development of urban areas and involves environment friendly methods of construction and development. It brings into view solutions that are energy-efficient. For example, energy is the most important requirement of any development; it is also needed to run the city. Green infrastructure would suggest the use of renewable sources of energy such as solar power. Green infrastructure is not only aimed at saving the infrastructure but this also leads to a considerable reduction in development costs. In addition to the short term benefits, an ecofriendly development will also lead to general climate changes in the long term. Wind modification and a reduction in temperature are some visible changes.

An eco-friendly infrastructure comprises a larger number of gardens and parks, tree lined boulevards and water bodies that can be adjusted into the urban infrastructure. Smart cities in India are based on the concept of green infrastructure. Use of renewable sources of energy, a planned way of waste disposal, better condition of rods, methods for conservation of resources – all are part of a smart city's development. Only when we work together with the government, the dream of smart cities and a Smart India can come true. Going "green" has been one of the most noticeable trends in the construction industry since the past few years. With the advent of the 21st Century, construction companies, whether small or big, have become more cautious about adopting green practices to build eco-friendly buildings. Surprisingly however, there has not been any conscious effort to implement ecofriendly infrastructure, which has immense scope and relevance in the present scenario.

Despite sustainable development making inroads into the Indian economy and going green becoming a trend amongst business, infrastructure sector is still to realize its potential. Eco-friendly infrastructure, which is an established paradigm world over including quite a few developing countries, is still in its nascent stages in India despite its immense scope and relevance in the evolving scenario in the country.

RELEVANCE OF THE CONCEPT

Green infrastructure is strategically planned and managed networks of natural lands, working landscapes and other open spaces that conserve ecosystem values and functions and provide associated benefits to human populations. Additional elements and functions can then be added to the network, depending on the desires and needs of the designers – working lands, trails and other recreational features, cultural and historic sites. These all can be incorporated into green infrastructure networks that contribute to the health and quality of life for America's communities.

Just as we must address haphazard development, we must also address haphazard conservation – conservation activities that are reactive, site-specific, narrowly focused, or not well integrated with other efforts. Just as we need smart growth to strategically direct and influence the patterns of land development we need smart conservation to strategically direct our nation's conservation practices. Green infrastructure provides a solution that ensures environmental protection and a higher quality of life within communities as well as regulatory predictability for landowners and investors.

Considering India's geographic vastness, infrastructure development will play a critical role in cementing its position as the next economic superpower. Infrastructure development, per se, is

indispensable to India's economic growth. According to a McKinsey research, it is said that 2/3 of India is yet to be built and this will happen over the next 20 years, for a potential demographic dividend to actualize and pay out, India needs vibrant and sustainable infrastructure, for its villages, towns and cities.

Given India's geographic immensity, rising population and steady urbanization rate, infrastructure development will play a critical role in strengthening its position as the next economic superpower. And adopting eco-friendly practices will not only safeguard our existing resources but also make them more sustainable.

1. Indian landscape is increasingly fragmented:

Compared to other regions of the world, India is a relatively densely populated continent, and much of the land is in active use. As a result many of the natural areas that remain are under pressure and at risk of becoming fragmented. This affected the functioning of our ecosystems, as they need space to thrive and deliver their services. Healthy ecosystems are part of our life-support systems and biodiversity is the basis for ecosystems health and stability. Ecosystems made up of many different species are more likely to remain stable when there is some damage or loss than ecosystems comprising fewer species. Habitat fragmentation is caused by a whole range of different factors liked to changes in land use including urban sprawl transport infrastructures and intensifying farming or forestry practice.

2. Wildlife needs to be able to exist outside protected areas:

Wild plants and animals need to be able to move, migrate, disperse and exchange populations between protected areas in order to secure their long term survival, Urban sprawl, intensive farming or forestry practices and transportation routes all present significant and a sometimes insurmountable obstacle to species movement. They also render the wider environment more hostile and inaccessible to wildlife. Building a green infrastructure will help to reconnect existing nature areas, for instance through wildlife corridors or stepping stones and eco-bridges, as well as improve the general ecological quality of the wider environment so that it is more friendly and permeable to wildlife.

3. A green infrastructure helps to maintain valuable ecosystem services:

The loss of natural areas has repercussions well beyond the disappearance of rare species, Ecosystem, which are powered by the diversity of life within them, provide society with a stream of valuable, economically important goods and services such as water purification, soil fertilization, carbon storage etc. They also play a central role in fighting climate change by protecting us against floods and other negative effects of changing weather patterns. Intact flood pains, for instance, play an important role in helping to alleviate floods by storing water and releasing it back slowly into streams and rivers. Forests act as carbon sinks and prevent soil erosion. Wetlands absorb pollutants and improve the quality of our freshwater supply. That is why investing in a green infrastructure also makes economic sense. Having to find man-made solutions to replace the services that nature offers for free is not only technically challenging but also very expensive.

4. Making space for nature through a more integrated approach to land use:

An Indian green infrastructure can be developed using a variety of techniques. They can include for instance.

- Improving connectivity between existing nature areas in order to counter fragmentation and increase their ecological coherence e.g. by safeguarding hedgerows, wildlife strips along field margins, small watercourses;
- Enhancing landscape permeability to aid species dispersal, migration and movement e.g. through the introduction of wildlife friendly land uses or agri/forest environment schemes that support extensive farming practices;
- Identifying multifunctional zones. In these areas, compatible land uses that support healthy bio diverse ecosystems are favoured over other more destructive practices, they may for instance be areas where farming, forestry, recreation and eco systems conservation all operate together in the same space. Such `win-win` or small loss, big gain` combinations can deliver multiple benefits not just to those using the land (farmers, foresters, tourism provides, etc.) but also to society at large through the provision of valuable ecosystem services such as water purification or soil improvement and the creation of attractive `breathing spaces` for people to enjoy

5.Spatial planning helps create a green infrastructure:

In practice, one of the most effective ways of building a green infrastructure is to adopt a more integral approach to land management. This in turn, is best achieved through strategic, level special planning which enables spatial interactions between different land uses to be investigated over a large geographical area (eg: region or municipality). Strategic planning is also a means of bringing different sectors together in order that they may decide together on local land use priorities in transparent, integrated and cooperative way. Spatial planning can guide infrastructure developments away from sensitive sites, thereby reducing the risk of further habitat fragmentation. It can also identify ways to spatially reconnect remaining natural areas, for instance by encouraging habitat restoration projects in strategically important places or by integrating elements of ecological connectivity (eg eco-ducts or natural stepping stones) into new development schemes.

EXISTING NORMS

While assessing the future impact of implementing eco-friendly infrastructural facilities, it becomes necessary to understand the existing practices. At present, all infrastructure projects in India are required to furnish an Environmental Impact Assessment (EIA) report to seek approval from the Government of India. Likewise, the development projects have to acquire the Ministry of Environment and Forests (MoEF) consent to commence work. Over the years, the EIA norms have been modified to help expedite the approval process.

REASONS OF CONCERN

However, authorities have failed to address the environmental concerns linked with infrastructure development. Therefore, no notable steps have been undertaken to facilitate environmental sustenance. The Central Government has been quick in dealing with the hassels faced by most infrastructure companies while seeking approval for their projects. However, the environmental factors have been largely ignored while modifying the existing norms.

THE WAY FORWARD

Although the scenario is still bleak in the Indian context, a large number of infrastructures companies have responded to issues pertaining to environment degradation by adopting energy-

efficient technologies. Many infrastructure projects are being completed using environment-friendly raw materials such as cement and a growing number of infrastructure companies are consulting environmentalists. Many companies have started to invest more in research and development to address green infrastructure issues including improving designs in water and energy related services.

Growing awareness has made authorities and companies more conscious about the importance of protecting the environment and sustaining for future. Furthermore, industry players are finding the implementation of green practices to be a more commercially viable option as they are now able to curb escalating costs of construction. At this juncture, government support and dissemination of information are required to make Indian infrastructure sustainable.

TECHNIQUES FOR GOING GREEN

1. Zero-carbon and Zero Net-energy Homes: The term "green building" is wideranging and applies to many different facts of environmentally conscious building. The terms zero-carbon and zero-net-energy, however, are much more specific. Both zero-carbon and zero-net energy homes also use no fossil fuels and as they can produce. Zero-carbon (or carbon neutral) homes also use no fossil fuels and therefore produce no greenhouse gasses. The U.K has set a goal to require all new homes to be zero-carbon by 2016, and the city of Copenhagen is gunning to become the world`s first carbon neutral capital by 2025.
2. Advances in Solar Power-Green building isn`t only about alternative energy technologies, however, It`s also about the appliances that use those technologies. Have you ever dreamed of a kitchen that could turn off its own lights or a thermostat you could text to change the temperature?

   Solar power has come a long way since man first used magnifying glasses to start fires in the 7^{th} century B.C. Recent advances include the use of natural berry dyes to make solar cells more efficient, microfilm technologies that create less waste and lower costs, and concentrated solar power plants like the one the Deserted Foundation is pushing in North Africa.
3. On-site Water Treatment Solutions: Water is an integral amenity and raw material requires to be handled and used with most precision. The pressure on the water table can be reduced throughout from the planning stage with the use of indigenous plant and grass species, rainwater harvesting, drip irrigation public green spaces, wastewater management and grey water recycling. Water-efficient fixtures and metering are also important measures to help constrain and measure water usage in the project.
4. Materials, waste and recycling: Waste-reduction efforts should be chalked out right from the construction process. Materials with recycled content should be promoted while use of virgin material should be discouraged. Sourcing from local region is another plus, while the post-occupancy waste management and treatment methods are critical for generating Leadership in Energy and Environmental Design (LEED) rating points.
5. Indoor environmental quality: Criteria for high-quality indoor air includes natural day-light, cross-ventilation, efficient exhaust and interior manufacturing with constraining few volatile organic compounds.

6. Intelligent Design: It is imperative to preserve the natural topography of the project. This also helps immensely in building a green cover and considerably reduces the project`s heat effect. To improve cross ventilation and bring natural lighting to the project, developers can focus on designs that maximize the exposures for each flat. Designers are looking to reinvigorate and redefine the field with innovative architectural styling's that will give a new generation of buildings a lean, intelligent identity. Informed a green sensibility and a renewed commitment to versatile utility, one such design trend is Biophilic design. On the leading edge of the green building movement is a strategy called biophilic design=using patterns in nature, particularly in biological systems, to inspire innovative and more efficient design within architecture and engineering. Glass usage has typically been a symbol of energy inefficiency, as heat exchange in large, translucent surfaces is higher than in insulated walling. Advances in window design have combated this problem, but new developments stand to make glass the staple of green building.

In that the building sector is experiencing a reboot of sorts, the industry more than ever needs an influx of inspired, innovative, eco-friendly ideas, concepts that will work to give our cities and communities physical shape to our evolving goals of environmental care, energy conservation, and improved resource management. With these trends leading the way, the next few years in the building sector will be greener and more imaginative than ever.

BENEFITS OF GOING GREEN

COMMUNITY BENEFITS

A. Green Jobs: Green infrastructure can reduce a community`s infrastructure costs, promote economic growth, and create construction and maintenance jobs. As demand for green infrastructure skills increases, a range of new training and certification programs is emerging.

B. Health Benefits: More green space and parks encourage outdoor physical activity, reducing obesity and preventing associated chronic disease, high blood pressure stroke. Type II diabetes, arthritis and certain kinds of cancer.

C. Recreation Space: Vegetation and trees can increase publicly available recreation areas, allowing urban residents to enjoy greenery without leaving the city. Additionally vegetation and permeable pavements can reduce noise pollution by damping traffic, train, and plain noise pollution by damping traffic, and plane noise.

D. Property Values: Using green infrastructure in construction and increasing vegetation and tree cover can increase property values, benefiting both developers and homeowners.

Habitat

E. Habitat Improvement Vegetation in the urban environment provides habitat for birds, mammals, amphibians, reptiles, and insects. Even small patches of vegetation like green roofs can provide habitat for a variety of insects and birds. By reducing erosion and sedimentation, green infrastructure also improves habitat in small streams and washes.

F. Habitat Connectivity: Large-scale green infrastructure, such as parks and urban forests, help to facilitate wildlife movement and connect wildlife populations between habitats. Learn how Loxahatchee. Florida is protecting the local watershed and conserving native ecosystems through the Loxahatchee Regional Greenway System.

Air Quality

G. Ground-Level Ozone: When nitrogen oxides and volatile organic compounds interact in the presence of heat and sunlight, they create groundlevel ozone or "smog". Smog conditions are usually worst in the summer and cam lead to respiratory health problems. Vegetation can reduce smog by

- Reducing air temperatures.
- Reducing power plant emissions associated with air conditioning , and
- Removing air pollutants

Particulate Pollution: The tiny of dust, chemicals, and metals suspended in the air we breathe are called particulate matter. It can enter our lungs and cause serious health effects. Trees. Parks, and no other green infrastructure features can reduce particulate pollution by absorbing and filtering particulate matter.

Health Effects: Breathing smog and particulate pollution can cause respiratory ailments, including chest pain, coughing, aggravation of asthma, and even premature death. In their triple bottom little study on the benefits of green infrastructure, the city of Philadelphia found that increased the canopy, could reduce ozone and particulate levels enough to significant reduce mortality, hospital admission and work loss days.

Water Quality

A. Storm water runoff from urban delivers pollutants - including pathogens, nutrients, sediment and heavy metal - to our stream, lakes, and beaches. In cities with combined sewer systems, high water flows also can send untreated sewage into our waters. By retaining rainfall from small storms, green infrastructure reduces storm water discharges. Lower discharge volumes translate into reduced combined sewer overflows and lower pollutant loads. Green Infrastructure also treats storm water that is not retained.

B. Flooding: Conventional storm water infrastructure quickly drains storm water to rivers and streams, increasing peak flows and flood risk. Green Infrastructure can mitigate flood risk by slowing and reducing storm water discharges.

C. Water Supply: Rainwater harvesting and water infiltration-based practices increase the efficiency of our water supply system.

- Rainwater harvesting systems can be used for outdoor irrigation and some indoor uses and can significantly reduce municipal water use.
- Water infiltrated into the soil can recharge ground water, an important source of water in the United States.

D. Private and Public cost savings: Basing storm water management systems on green infrastructure rather than on gray infrastructure often results in lower capital costs for developers. The savings result from lower costs for:

- Site grading, paving. And landscaping; and □Smaller or eliminated piping and detention facilities.

In cities with combined sewer systems:

- Green infrastructure controls can cost less than conventional controls; and
- Green-gray approaches can reduce public expenditures on storm water infrastructure.

Role of the Government

The government often supports the industries that sees as important. This support is provided through tax cuts, grants, and subsidies. There are many different types of subsidies and programs designed to support green energy.

1. Government Grants: A grant is non-repayable money provided to individuals or businesses. Numerous grants that support the "green' industry are available through the government. The government has provided green energy and eco-friendly businesses with substantial amounts of money through such grants. This money doesn't have to be repaid and it can often be used in whatever way the business requests, but it has to be invested under the terms of grant. This means that the grants provide businesses with additional funding so that they can invest in research, manufacturing, or anything else that progresses the business further. Grants are sometimes given to individuals, as well. If you're interesting in investing in green energy, you may want to see what green energy grants are available to you as an individual investor.
2. Tax Cuts: Whenever the government provides a tax cut, it's a way for businesses and individuals to save money. Paying taxes is how we support our government, so tax cuts allow us to keep money our ourselves. The government has recently allowed businesses and individuals to write off certain types of green energy investments on their taxes. Such write-offs mean that you essentially declare these investments as an "expense", which will be subtracted from your income and reduce the amount of money that you owe in taxes. Tax cuts are common for individuals, but they are used in government subsidies, as well.
3. Government Subsidies: A government subsidy is a type of support provide to a specific business or sector of businesses. Green product manufacturers and eco-friendly companies have been the recipients of government subsidies for many years. Essentially, the government has provided some type of assistance to these businesses through the use of subsidy. This is often a tax cut, but it could be via direct funds, as well .The money that is used for these subsidies comes from taxpayers, so we entrust that our government provides the subsidies for good reason. For an industry like green energy, the importance of government subsidies is very apparent. Green energy is expected be the way of the future and government subsidies help make that a reality. Government subsidies help aid an industry when it is not progressing fast enough in the free market. Generally, when new technology becomes available like green, it can take a considerable period of time before prices decline enough to where consumers find the technology affordable. The tree market just doesn`t work as fast as some governments would prefer, so they intervene, helping important technology like green energy until it becomes profitable for business quicker than it would through the free market. Governments support helps push the industry further along so that the products become affordable to consumers at a faster rate. It also allows business to expand and get recognized globally, which sheds good light on the country that the business originated from.

The Way Forward

Over the next several decades, the world will spend $30 trillion on infrastructure. Intelligent Infrastructure, manifested as green architecture, geo-engineering, smart systems, and connectivity, will allow countries and government to create a smarter, stronger and more sustainable infrastructure. Lately in India, growing awareness has made authorities and companies more conscious about the importance of protecting the environment and sustaining resources for future. Furthermore, industry players are increasingly finding the implementation of green practices to be a commercially viable option as they are now able to curb escalating costs of construction. At this juncture, government support and dissemination of information are required to make Indian infrastructure sustainable.

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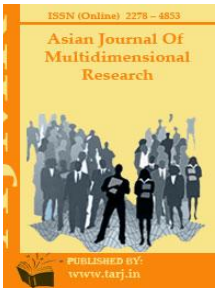

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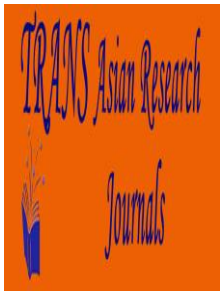

A STUDY ON IMPACT OF LOAN THROUGH SELF HELP GROUPS WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

The animator is responsible for providing leadership to the group and to maintain the various registers.The word 'empowerment' means giving power. According to the International Encyclopedia (1999), power means having the capacity and the means to direct one's life towards desired social, political and economic goals or status. The Ministry of Rural Development has special components for women in its programmes and funds are "women component" to ensure flow of adequate resources for the same. One of the major schemes implemented by the Ministry of Rural Development having women's component is the SGSY. In return this project helped HUL to distribute its product's even to the most inaccessible rural villages in India. The paper shall discuss the business model adopted by HUL to empower the rural women. The loan amounts used for the productive purposes like family and business maintenance.Government and NGOs provide loan to SHG members for motivate women entrepreneurs and increase the level of empowerment. Each group selects one animator and two representatives from among themselves. The animator is responsible for providing leadership to the group and to maintain the various registers. The representatives assist the animator and maintain the bank accounts of the group. Thus, empowerment of women not just a goal in itself, but key to all global development goals. Empowerment is an active multidimensional process to enable women to realize their identity and power in all spheres of life.

KEYWORDS: *Periodic Meetings, Compulsory Attendance, Representatives, Urgency*

INTRODUCTION

Self Help Group (SHG) is a group of 12 to 20 women of the same socio-economic background who come forward voluntarily to work together for their own upliftment. The unique feature of the SHG is its ability to inculcate among its members sound habits of thrift, savings and banking. Regular savings, periodic meetings, compulsory attendance, and systematic training are the salient features of the SHG concept. Each group selects one animator and two representatives from among themselves. The animator is responsible for providing leadership to the group and to maintain the various registers. The representatives assist the animator and maintain the bank accounts of the group.

Self Help Group members are savings weekly or monthly. All savings are distributed to members on interest. Group loan is the internal loan obtained by the members through the group. This group loan is sanctioned to the members depending upon the importance of urgency and with the opinion or other members. In general the maximum period of group loan is only 10 months. Rate of interest is one of the deciding concepts in the SHGs. Normal rate of interest charged by the bank is around 12 percent and group lends the loan either at same rate or higher rate to the members. Excess amount is collected as interest by the SHGs will be disbursed to the members in future.

OBJECTIVES OF THE STUDY

- To know the socio economic conditions of members of SHG_S
- To assess the existing financial practices of women SHG.
- To analyse the impact of loan through SHG_S

SAMPLING DESIGN

The target population in the present study is "Women members of SHG in rural Coimbatore". The universe subjected to 15651 SHG with 221674 women in it. For the study purpose the researcher has used proportionate sampling method for selecting the Self Help Group (1%) in each block. From each selected SHG three members have selected by using lottery method. Totally 170 SHGs and 510 members have selected to collect the primary data relationship between age and perception of empowerment of SHGs.

REVIEW OF LITERATURE

Uma narang (2012) the concept of Self Help Group has its roots in rural areas and it has been mooted along the rural and semi urban women to improve their living conditions. Though it is applicable to men in our country, but it has been more successful only among women and they can start economic activities through SHG movement. In India, this scheme is implemented with the help of NABARD as a main nodal agency in rural development. It is self employment generation scheme for especially rural women, who don t have their own assets. The word 'empowerment' means giving power. According to the International Encyclopedia (1999), power means having the capacity and the means to direct one's life towards desired social, political and economic goals or status. Empowerment provides a greater access to knowledge and resources, more autonomy in decision making, greater ability to plan lives, more control over the circumstances which influence lives, and freedom from customs, beliefs and practices. Thus, empowerment of women not just a goal in itself, but key to all global development goals. Empowerment is an active multidimensional process to enable women to realize their identity

and power in all spheres of life. This paper examines the women empowerment through SHGs and also explains the current position of women empowerment in India.

Reji (2013) the empowerment of women is crucial for the development of the country. Bringing women into the main stream of development is major concern for the Government of India. That is why the year 2001 has been declared as the "Year of women Empowerment" Women's empowerment is critical to the socio economic progress of the community and bringing women into the main stream of national development has, therefore, been a major concern of the government. The Ministry of Rural Development has special components for women in its programmes and funds are "women component" to ensure flow of adequate resources for the same. One of the major schemes implemented by the Ministry of Rural Development having women's component is the SGSY.

TazynRahman(2013) it is no wonder that India has a long way to go in improving women's education, financial independence and entrepreneurial abilities. The literacy rate for women is 22.7%, which is less than half the rate for men (51.6%). It is sad to observe that though the women in rural India have inherent 1024

S. Mamta, M. Saravanakumar and S. Srividhya skills and expertise in making beautiful handicraft items with locally available raw materials like thread, beads, jute, straw, wood, paper, etc but they cannot do much as most of them live in remote areas, below the poverty line, earning less than a dollar a day, with no reliable source of a steady income. By the year 2000 there were a large number of Micro finance institution's and Self Help Group's (SHG) coming up in various part of the country. The Micro finance institution's provides micro credit for micro-enterprises which surprising result in elevating the livelihoods of these SHG members. HLL took notice of this phenomenon and started "Project Shakti" as a corporate SHG partnership. Project Shakti was started by Hindustan Unilever Limited in the year 2000 as an ambitious plan to stimulate new demand in the lower income, rural segment by creating a self sustaining cycle of business growth through people growth. This project was planned as a winwin partnership between HUL and rural self-help groups (SHG's) comprising mostly illiterate women's. HUL helped the SHG's to access micro-credit, buy HUL products and sell them in their villages. In return this project helped HUL to distribute its product's even to the most inaccessible rural villages in India. The paper shall discuss the business model adopted by HUL to empower the rural women.

AGE – WISE CLASSIFICATION OF MEMBERS

Age and socio – economic activities are inter related. The young persons are generally more energetic, change –prone, progressive and innovative. Table 1 explain about the age-wise classification of members.

1. AGE – WISE CLASSIFICATION OF MEMBERS

S.No	Age-wise	No of Respondents	Percentage to Total
1.	Below 25 Years	150	29.41
2.	25 – 35 Years	273	53.53
3.	35 – 45 Years	71	13.92
4.	Above 45 Years	16	3.14
	Total	**510**	**100.00**

It is inferred from the Table 1 that, 29.41 percent of the respondents belong to the age groups below 25 years, 53.53 percent of the respondents belong to the age group oof25 years to 35 years, 13.92 percent of the respondents belong to the age group of 35 years to 45 years and the remaining 3.14 percent of the respondents are in the age group of above 45 years. It is concluded that, the majority of the respondents (54.53%) belong to the age group between 25 years to 35 years old.

Area of Residence

The researcher has classified the residing area of the respondents such as rural, urban and semi – urban areas. Table 2 shows the classification of SHGs on the basis of their location.

2. AREA OF RESIDENCE

S.No	Area of Residence	No of Respondents	Percentage to Total
1.	Rural	160	31.37
2.	Urban	283	55.49
3.	Semi – urban	67	13.14
	Total	**510**	**100.00**

Table 2 reveals that, out of 510 respondents, 31.37 percent of the respondents are living in Rural areas, 55.49 Percent of the respondents are living in Urban areas are the remaining 13.14 percent of the respondents are living in Semi – Urban areas. It is gratified to note that, the majority of the respondents (55.49%) are living in Urban areas.

Occupation of Members

In order to supplement the income of the family, SHG members are involving in and in some are engaged social activities. Table 3 elucidates the classified according to the occupation.

3. OCCUPATION OF MEMBERS

S.No	Occupation	No of Respondents	Percentage to Total
1.	Agriculture and allied Activities	96	18.82
2.	Collie	135	26.48
3.	Housewives	127	24.90
4.	Business	152	29.80
	Total	**510**	**100.00**

It is seen from Table 3 that, 18.82 percent of the respondents are doing agricultural and allied activities, 26.48 percent of the respondents are worked by coolies, 24.90 percent of the respondents are house wife and the remaining 29.80 business. It is conferred that, the majority of the respondents (19.80%) are doing business.

Sources of borrowing before joining SHGs

Poverty and unemployment are the major problems of developed countries. In India, most of the families are living below poverty line. The respondents borrowed money from friends and relatives, money lenders and commercial banks for meeting their family expenses. Local money lenders provide loans for high rate of Interest. Table 4 shows the sources of borrowing before joining SHGs

4. SOURCES OF BORROWING BEFORE JOINING SHGS

S.No	Sources of Borrowings	No of Respondents	Percentage to Total
1.	Friends and Relatives	231	45.29
2.	Money Lenders	243	47.65
3.	Commercial Banks	36	7.06
		510	**100.00**

Table 4 reveals that 45.29 percent of the respondents have borrowed money from friends and relatives, 47.65 percent of the respondents have got money from money lenders and the remaining 7.06 percent of the respondents have received loan from commercial banks before joining Self Help Groups. It is clear that, the majority of the respondents (47.65%) have received money from money lenders before joining the SHG.

Sources of Borrowing after joining SHG

The purpose behind the formation of SHG to pool the resources of members to meet their needs. The habit of thrift enables the development of common funds mobilized to mitigate the urgent needs of the members. SHGs provide loan with low rate of interest. The number of members taken loan from local money lenders had been reduced considerably after join by SHG. Table 5 explain the sources of borrowing after joining SHGs.

5. SOURCES OF BORROWING AFTER JOINING SHGS

S.No	Sources of Borrowings	No of Respondents	Percentage to Total
1.	Friends and Relatives	96	18.82
2.	Money Lenders	62	13.33
3.	Commercial Banks	73	14.32
4	SHGs	273	53.53
	Total	**570**	**100.00**

It is inferred from Table 5 that, 18.82 percent of the respondents have borrowed loan from friends and relatives after joining SHGs. 13.33 percent of the respondents have borrowed money form money lenders, 14.32 percent of the respondents getting loan from commercial banks, and the remaining 53.53percent of the respondents received loan after joining Self Help Groups. It is concluded that the majority of the respondents (53.53%) have received loan from Self Help Group funds after they are joining in the SHGs.

Members received by Group loan

Providing credit access to members of poor house hold on sustainable basis is the primary objective of Self Help Group. A well conceived loan programme in Self Help Group will enhance its attractiveness to the basically intended to inculcate the regular savings and lending the accumulated savings to members to cuter household credit needs. Table 6 shows the opinion of members received by Group loan.

6. MEMBERS RECEIVED BY GROUP LOAN

S.No	Received loan	No of Respondents	Percentage to Total
1.	Yes	447	87.65
2.	No	63	12.35
	Total	**570**	**100.00**

Table 6 elucidates that, out of 510 respondents, 87.65 percent of the respondents have received group loan and the remaining 12.35 percent of the respondents have not received group loan.It is seen from Table that, the majority of the respondents (87.65%) have borrowed Group loan through Self Help Groups

Amount of loan borrowed from the SHG

The Self Help Group provides sangha loans to the members. Group fund generally comprises from members thrift, interest earned on members loans, Fines and penalities charged on defaulting members loans. The amount of loan is depends upon the needs for their expenditure. The distribution of sample respondents on the basis of amount of Group loan borrowed by each respondent is shows in Table 7.

7. AMOUNT OF LOAN BORROWED FROM THE SHG

S.No	Amount of loan	No of Respondents	Percentage to Total
1.	Less than Rs 10,000	111	24.83
2.	Rs 10,000 – Rs 30,000	297	66.44
3.	Rs 30,000 - Rs 50,000	23	5.15
4.	More than Rs 50,000	16	3.58
		447	**100.00**

It is inferred from Table 7 that, 24.83 percent of the respondents have borrowed less than Rs 10,000. 66.44 percent of the respondents have borrowed Rs 10,000 – Rs 50,000. 5.15 percent of the respondents received amount for Rs 50,000 to 1,00,000 and the remaining 3.58 percent of the respondents getting loan more than Rs 1,00,000 through SHGs. It is concluded that, the majority of the Rs 10,000 to Rs 50,000 through Self Help Groups.

Purpose of received sangha loan

Self Help Groups are formed to satisfy the needs of their members. Group loans are often given to members for various purposes, such as agriculture activities and farming, run petty business, festival commitments, Education to their children and new house construction and modification of house. Table 8 shows the various purposes of receiving sangha loan through Self Help Groups.

8. PURPOSE OF RECEIVED SANGHA LOAN

S.No	Agriculture activities	No of Respondents	Percentage
1.	Agriculture activities and farming	44	9.85
2.	Run petty Business	168	37.58
3.	Festival Commitments	117	26.17
4.	Education to their children	103	23.04
5.	New house construction and modification of house	15	3.36
		447	**100.00**

Table 8 depicts that, 9.85 percent of the respondents used loan amount for Agriculture activities and farming, 37.58 percent of the respondents getting loan for doing petty business, 26.17 percent of the respondents for festival commitments 23.04 percent of the respondents received loan for giving education to their children and the remaining 3.36 percent of the respondents received loan amount for the purpose of new house construction and modification of house. It is clear that, the majority of the respondents (37.58%) have received loan for the purpose of running petty business.

Regular repayment of loan

Members are taken of loan uniform schedules which are worked out in the SHG. Members are discussed about repayment of loan. They have taken uniform decision about repayment of loan. Table 9 shows the members opinion for regular repayment of sangha loan.

9. REGULAR REPAYMENT OF LOAN

S.No	Particulars	No of Respondents	Percentage to Total
1.	Yes	405	90.60
2.	No	42	9.40
		447	100.00

Table 9 explains that, out of 447 respondents 90.60 percent of the respondents have repaid their loan amount regularly and the remaining 9.40 percent of the respondents have not repaid the loan properly. It is clear that, more than four-fifth (90 – 60%) of the respondents have repaid their loan amount regularly.

CONCLUSION

In this paper the Self Help Groups the poor women has living especially in rural areas to involve themselves in various economic and social activities. Financial assistants received by the members after joining SHGs. In this study area majority of the members have received loan from the SHGs. The loan amounts used for the productive purposes like family and business maintenance.Government and NGO_S provide loan to SHG members for motivate women entrepreneurs and increase the level of empowerment.

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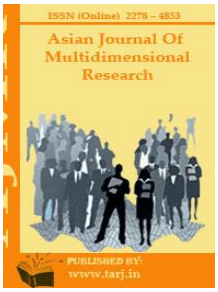

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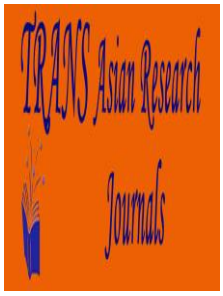

CONTRIBUTION OF CO-OPERATIVE MANUFACTURING SOCIETY IN INDIA

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ABSTRACT

An attempt was made in this paper to examine the parameters of growth based on certain indices with their growth and variation, relationship between wage and labour productivity, relationship between labour productivity growth and output growth, impact of technology on wage, employment ,wage and output elasticity covering the period from 2001-02 to 2013-14 for the co-operative manufacturing society in India. Tools such as Compound Annual Growth Rate, Co-efficient of variation, Annual Variation, Linear regression models, other tools such as base year indices, percentages, diagrams and ratios were used to carry out the analysis. It was observed that throughout the year there were mixed changes recorded with wider variations in the growth of number of factories, geographical and market concentration. Capital was the major factor in maintaining gross output level of the manufacturing society. Earnings per employee was less than the per worker wage rate throughout the period. Capital intensity was more than the labour intensity. The efficiency of capital input was stable compared to labour efficiency. The importance of labour in the industry as an input has been continuously decreasing. The results supported the hypothesis that labour productivity has strong influence on the determination of wages in the manufacturing sector. The result regarding Verdoon's law showed that output was closely related to labour productivity. Thus, this finding supported Verdoon's law. The output elasticity with respect to employment showed that it was positive but was statistically insignificant. Employment elasticity with respect to output was positive but statistically significant co-efficient was not found. Wage elasticity with respect to labor productivity and output was positive.

KEYWORDS: *Labour Productivity, Capital Efficiency, Verdoon's Law, Output Elasticity.*

INTRODUCTION

The economic development of a country depends mainly on industrial development. In manufacturing sector, the scope for internal as well as external economies is greater than in other sectors. It acts as an instrument both for creating capacity to absorb excess labour power and for diversifying the market required to boost economic development. Therefore, the present study is attempted to analyze the productivity, production function elasticity industrial concentration wages and earning, Factor intensity, Factor's share in total input and some theoretical laws and hypothesis in the manufacturing sector of India- disaggregating in to various high technology manufacturing sector.

The importance of the co-operative sector in the industrial sphere as an instrument of socio-economic development cannot be over emphasized or exaggerated. The artisans and villagers engaged in Agro- based industries suffer from all those disadvantages of scale of production and competition. It is through industrial societies artisans could secure all those advantage which are otherwise derived to them. It may be mentioned that in order to mobilize the small savings of the local people for further utilization of local resources, large-scale industrial societies have developed. The promotion of co-operatives enterprise in all industrial activities has received acceptance as one of the appropriate means for solving many of the prevailing economic ills, in particular of the industrial sectors. In view of the above points the study has been undertaken to examine parameters of growth based on certain indices with their growth and variation, relationship between wage and labour productivity, relationship between labour productivity growth and output growth, impact of technology on wage, Employment wage and output elasticity.

METHODOLOGY

1. Selection of the Variables:

Gross output was taken as output, since trends are not affected significantly by the use of gross output. Also ambiguity in the calculation of depreciation can be overcome if gross output is taken as a measure of output. Labour input consisted workers directly involved in production and employees other than workers. The fixed capital was taken into account as capital input. Wages included remuneration paid to workers. Emoluments are considered as remuneration paid to the employees.

2. Data Base of the Study:

The basic data source of the study was Annual Survey of Industries (ASI) published by Central Statistical Organization (CSO), Government of India covering the period from 2001-02 to 2013-14.All the referred variables were normalized by applying Gross Domestic Product (GDP) deflator. The GDP at current and constant prices were obtained by referring to Economic Survey, published by Government of India, Ministry of Finance and Economic Division, New Delhi.

3. Tools of Analysis:

1. Ratios:

i. Wage rate=Total wages / number of workers

ii. Earning per employee=Total emoluments / Number of workers

iii. Labour intensity = (L/K) =Number of workers / Capital employed

iv. Capital intensity = (K/L) = Capital employed / Number of workers

v. Labour efficiency = (L/O) = Number of workers / Total output

vi. Capital efficiency= (K/O) = Capital employed / Total output

Vii. Percentage share of labour in total input= L / I = Number of workers / Total input

ix. Percentage share of capital in total input = (K / I) = capital emplyed / Total input

X .Geographical concentration =Total factories / Geographical area

Xi. Market concentration =Total output/Number of factories

2. Co-efficient of variation:

The coefficient of variation is defined as the ratio of the standard deviation to the mean:

$$C.V=\frac{\sigma}{\bar{X}}x100$$

C.V= coefficient of variation

σ = Standard devaition

$\bar{X}$=Mean

3. Annual Variation:

The annual change in the growth of number of factories was calculated using the formula below:

AV= VT - Vt-1/Vt-1 Where

AV=Annual variation

VT= Current year value

Vt-1= Previous year value

4. Linear regression models:

i. Testing ability to pay hypothesis (Model-I)

The linear relationship between wages and labour productivity was examined through the following regression equation:

$$Ln\ W=a + b\ Ln\ P_L$$

Where

W = wage paid

P_L = Labour productivity

a = constant or intercept of the regression line

b = Elasticity of wage with respect to labour productivity Ln = Natural log

ii. Testing Verdoorn's law (Model-II)

The Verdoorn's law has been estimated as a linear relationship between labour productivity growth and output growth by applying the following linear regression formula.

$$Ln\ P_L = c + b\ Ln\ OUT$$

P_L = Labour productivity
OUT = gross output
C = constant or intercept of the regression line
b = Elasticity of labour productivity with respect to output
Ln = Natural log.

iii. Testing impact of technology on wage (Model –III)

Testing impact of technology on wage in of the industry was examined through the following regression equation

$$Ln\ W=a+b\ Ln\ K/L$$

Where

W = Average wage paid

K/ L= Capital –labour ratio (technology) or Capital Intensity

a= Constant or intercept of the regression line

b=Elasticity of wage with respect to capital intensity (K/L)

Ln= Natural log.

iv. Employment Elasticity

Employment elasticity was estimated as follows, where employment is regressed on gross output and fixed capital.

$$In\ L_t = \alpha_0 + \alpha_1 \ln Y_T + \alpha_2 \ln K_t$$

Where, Lt = Number of workers engaged in the current period

Y_t = Gross output in the current period

K_t = Fixed capital in the current period

α_0 = Constant co-efficient

α_1 = Elasticity of employment with respect to gross output

α_2 = Elasticity of employment with respect to fixed capital

$\alpha_2>0$ implies of employment and capital are complements

$\alpha_2<0$ implies of employment and capital are substitutes.

v. Output Elasticity:

The elasticity of output with respect to employment of labour and fixed capital measures the change in output due to change in one unit of labour or change in one unit of capital. The output elasticities was estimated as follows:

Where, $In\ Y_T = \alpha_0 + \alpha_1 \ln L_t + \alpha_2 \ln K_t$

Lt = Number of workers engaged in the current period

Y_t = Net value added in the current period

K_t = Fixed capital in the current period

α_0 = Constant co-efficient

α_1 = Elasticity of employment with respect to labour

α_2 = Elasticity of employment with respect to capital

vi. Wage Elasticity:

The wage elasticity with respect to labour productivity and output measures the change wage rate due to change in one unit of the above mentioned variables. The elasticity can l estimated as follows:

$W_t = \alpha_0 + \alpha_1 \ln L_p + \alpha_2 \ln y$

W_t = Wage rate in the current period

Lp = Labour productivity in the current period

Y_T = gross output in the current period

α_0 = Constant co-efficient

α_1 = Elasticity of wage with respect to labour productivity

α_2 = Elasticity of wage with respect to gross output

6. OTHER TOOLS:

Base year indices, percentages, diagrams and ratios were used other than the above mentioned tools.

RESULTS AND DISCUSSION

1. Growth of Number of Factories:

Details regarding growth of number of factories are given below in table-1 for the reference period under study.

TABLE-1
GROWTH OF NUMBER OF FACTORIES

Year	No. of Factories	Annual Percentage Increase/ Decrease
2001-02	2048	-
2002-03	1806	-11.81
2003-04	2132	18.05
2004-05	2009	-5.76
2005-06	2046	1.84
2006-07	2146	4.89
2007-08	1953	-8.99

2008-09	1414	-27.60
2009-10	1946	37.62
2010-11	2040	4.84
2011-12	2017	-1.13
2012-13	2054	1.83
2013-14	1919	-6.57

Footnotes: Calculations are based on ASI data

From the above table it is very clear that the annual percentage growth ranged between -1.13 percent and 37.62 percent across the years .The highest annual growth was recorded in the year 2009-2010 and the lowest in the year 2011-12.Through out the year there were mixed changes recorded with wider variations.Figure-1 illustrates the growth of number of factories.

Geographical and Market Industrial Concentration:

Geographical concentration is the ratio of industries to geographical area. Market concentration is a function of the number of firms and their respective shares of the total production (alternatively, total capacity or total reserves) in a market. In other words mark concentration is related to industrial concentration, which concerns the distribution of producti within an industry. The following table-2 shows details on percentage of geographical industrial concentration.

TABLE-2
PERCENTAGE OF GEOGRAPHICAL AND MARKET INDUSTRIAL CONCENTRATION

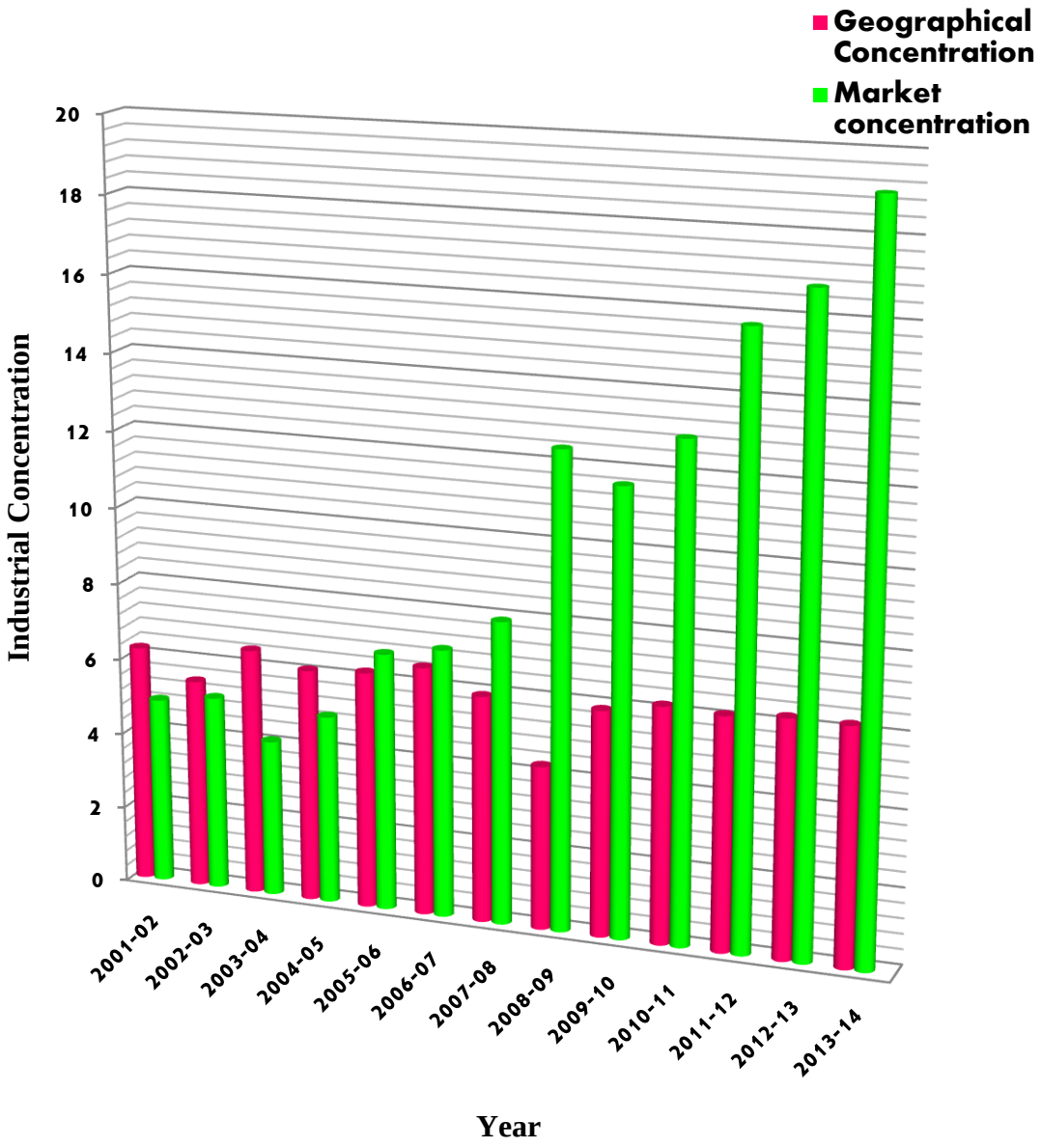
Year	Geographical concentration	Market concentration
2001-02	6.23	4.88
2002-03	5.49	5.10
2003-04	6.48	4.11
2004-05	6.11	4.94
2005-06	6.22	6.76
2006-07	6.52	7.03
2007-08	5.94	7.92
2008-09	4.29	12.41
2009-10	5.92	11.63
2010-11	6.20	12.92
2011-12	6.13	15.75
2012-13	6.25	16.76

2013-14	6.23	19.04

Footnote: Calculations are based on ASI data

Indices of both geographical and market concentration shows that from the beginning of the period to the end of the period there were fluctuations only in market concentration. The geographical concentration ratios were ranging between 4.29 and 6.48 percent while the market concentration was ranging between 4.11percent 19.04 percent. Figure-1 illustrates comparison of geographical and market concentration over the reference period under study from 2001-02 to 2013-14.

Figure-1
Percentage of Geographical and Market Industrial Concentration



3. per Factory Input Share

Table-3 provides percentage of per factory input share during the reference period under stu

TABLE-3
PER FACTORY INPUT SHARE (IN PERCENTAGE)

Year	Labour	Capital
2001-02	4.88	95.12
2002-03	4.65	95.35
2003-04	4.25	95.75
2004-05	4.18	95.82
2005-06	4.41	95.59
2006-07	4.36	95.64
2007-08	4.74	95.26
2008-09	5.54	94.46
2009-10	4.88	95.12
2010-11	4.57	95.43
2011-12	4.70	95.30
2012-13	4.57	95.43
2013-14	4.56	95.44

Footnote: Calculations are based on ASI data.

Details regarding per factory share of major inputs such as labour and capital explained the fact always capital share was more than 90 percent in these industries compared to labour employment throughout the reference period under study. Hence it is concluded capital is the major factor in maintaining gross output level of the manufacturing society.

4. WAGES AND EARNINGS:

The following table-4 gives facts regarding the indices growth of wages and earnings during the reference period under study.

TABLE- 4
INDICES OF WAGE RATE AND EARNINGS PER WORKER

Year	Wage Rate Per Worker	Earning Per Employee
2001-02	100	100
2002-03	99	93
2003-04	100	95
2004-05	111	100
2005-06	121	109

2006-07	122	112
2007-08	143	129
2008-09	155	133
2009-10	186	151
2010-11	122	190
2011-12	151	206
2012-13	271	234
2013-14	299	134

Foot note: Calculations are based on ASI data

The table clearly explain the fact that the earnings per employee was less than the per worker wage rate throughout the period .The comparatively higher increase in wages per worker in the co-operative manufacturing society may be due to the catching up effect because the wage has been low during the initial period. The rapidly rising index of wage rate clearly suggests that the manufacturing sector has failed to shift the burden of rising wage bill to the customers.

5. FACTOR INTENSITY:

Details on factor intensity is presented below in table-5

TABLE-5
INDICES OF FACTOR INTENSITY

Year	**Labour Intensity (L/K)**	**Capital Intensity (K/L)**
2001-02	100	100
2002-03	85	117
2003-04	96	103
2004-05	84	117
2005-06	60	164
2006-07	62	159
2007-08	57	173
2008-09	51	192
2009-10	48	205
2010-11	46	212
2011-12	43	232
2012-13	36	275
2013-14	31	321

Average	61	182
Standard deviation	21.85	64.65
C.V	35.55	35.46

Foot note: Calculations are based on ASI data

The above facts explained that as expected capital intensity was more than the labour intensity throughout the reference period under study. Also the indices of labor intensity gradually declined where as capital intensity was showing gradual increase. This is also evident based on the average growth. But there were no much differences in the magnitude of variability in their growth.

6. FACTOR EFFICIENCY:

Details on factor efficiency relating to capital and labor is shown in table-6

TABLE-6
INDICES OF FACTOR EFFICIENCY

Year	**Labour efficiency (L/O)**	**Capital efficiency (K/O)**
2001-02	100	100
2002-03	91	106
2003-04	103	107
2004-05	84	99
2005-06	65	107
2006-07	61	98
2007-08	59	103
2008-09	44	86
2009-10	41	86
2010-11	35	75
2011-12	29	69
2012-13	27	75
2013-14	27	87
Average	58.92	92.15
Standard deviation	26.85	12.76
C.V	45.58	13.85

Foot note: Calculations are based on ASI data

It is disappointing to note that the efficiency of both the factors have declined at the end of the reference period in the Indian co-operative manufacturing sector. But the comparison of the

individual factor showed that labour efficiency was always far behind the capital efficiency. The efficiency of capital input was stable compared to labour efficiency based on the co-efficient of variation.Table-6 gives details on per factory profit over time.

7. FACTOR'S SHARE IN TOTAL INPUT:

The share of labour and capital inputs in the total input component is shown in table-7.

TABLE-7
FACTOR'S SHARE IN TOTAL INPUT

Year	%share in input(I)	
	Labour L/I	Capital K/I
2001-02	8.25	91.75
2002-03	7.41	92.59
2003-04	8.11	91.89
2004-05	6.77	93.23
2005-06	5.40	94.6
2006-07	5.18	94.82
2007-08	4.69	95.31
2008-09	3.48	96.52
2009-10	3.24	96.76
2010-11	2.73	97.27
2011-12	2.30	97.7
2012-13	2.10	97.9
2013-14	1.86	98.14

Foot note: Calculations are based on ASI data

The share of labour in total factor input had gradually declined to 1.86 percent and the share of capital increased conversely. Thus the importance of labour in the industry as an input has been continuously decreasing. Theses points to the rising capital intensity in the co-operative manufacturing society of India.

8. Important theoretical law/hypotheses:

Table-8 shows details regarding the major law/hypothesis relating to ability to pay hypothesis and Verdoorn's law.

TABLE-8
CO-EFFICIENT OF IMPORTANT THEORETICAL LAW/HYPOTHESES TESTED

Test	Constant	Labour productivity	Output	Capital intensity	R^2	F-statistic
Ability to pay hypothesis	33.01	0.033* (9.9955)	-	-	0.908	99.11*
Verdoorn's law	154.89	_	15.011* (26.085)	-	0.986	98.14*

Foot note: (i) Calculations are based on ASI data
(ii) Figures in parantheses are 't' values of the estimates;
(ii) *Significant at 1% level;

Regression results for the ability to pay hypothesis explain the fact that the co- efficient of R^2 was 0.908 which means that only nearly 91per cent of the variations of wages around its mean were explained by labour productivity. The coefficient of labour productivity, represent the elasticity of wages with respect to labour productivity. It was positive and statistically significant. This means that an increase in labour productivity leads to the rise in wages. Thus the regression results support the hypothesis that labour productivity has strong influence on the determination of wages in the manufacturing sector. The result regarding Verdoon's law showed that output was closely related to labour productivity. Thus, this finding supported Verdoon's law. The t-value in both chemical products, non metallic products, Paper& Paper Products, Leather & Related Products period. The F-test statistics strengthens the explanatory power of the regression equation. Value of R^2 was0.986 which means that 99 per cent of the variations in labour productivity around its mean were explained by output.

9. Relative Importance of Technology on Wage, Output and Labour Productivity:

In order to draw an emphatic conclusion, the co-efficient of correlation was calculated to examine the strength of the relationship between a. technology and labour productivity b. technology and wage rates and c. labour productivity and wage rate.Table-9 shows details regarding correlation co-efficients.

TABLE-9
CO-EFFICIENT OF CORRELATION

Relationship with	Co-efficient
Labour productivity	.981
Output	.996
Wage rate	0.452

Foot note: Calculations are based on ASI data

The results showed that the correlation between technology (capital intensity) and labour productivity and technology and output were very strong. It was 0.981 and .996 respectively which implied that technology has a strong influence on the measurement of labour

productivity and output of these industries. The value of correlation was relatively low between wage rate and capital intensity.

10. ANALYSIS OF ELASTICITY

In this section the investigator had made an attempt to analyze various elasticity namely employment elasticity, output elasticity and wage elasticity by applying regression model. The results are presented in table-16.

TABLE-16
REGRESSION RESULTS

Elasticity	Constant (A)	Y_t	K_t	L_t	Lp_t	R^2	DW-Statistic	F-value
Employment elasticity	88.269 10.727*	.005 .055	.009 .056	-	-	.032	2.310	.167
Output elasticity	-73.531 -.776	-	1.579 15.964*	.058 .055	-	.963	1.460	131.797
Wage elasticity	-127.423 -.604	.240 1.756	-	-	2.342 .993	.326	1.665	1.665

Foot note: Calculations are based on ASI data .

Employment elasticity with respect to output was positive but statistically significant co-efficient was not found. Positive elasticity with respect to fixed capital was observed. This implied that fixed capital is considered to be a substitute for labour to a larger extent. The output elasticity with respect to employment showed that it was positive but it was statistically insignificant. The co-efficient of determinant R^2 showed that it was high for only output elasticity model implying the fact that 96.3 percent of the variation in the dependent variable was due to the combined effect of the independent variables namely fixed capital and number of workers. Wage elasticity with respect to labor productivity and output showed that, positive elasticity co-efficient were observed. This implied that when wage rate increases labour productivity and output will also be increase.

CONCLUSION

Capital was the major factor in maintaining gross output level of the manufacturing society. The comparatively higher increase in wages per worker may be due to the catching up effect because the wage has been low during the initial period. The rapidly rising index of wage rate clearly suggested that the manufacturing sector has failed to shift the burden of rising wage bill to the customers. It was found that labour efficiency was instable. In order increase the efficiency of labour force in this manufacturing sector, efforts should be taken to increase wages and fring benefits to promote the efficiency of labour. When wages and incentives will increase, it wil make the labourer hard worker and efficient. Vocational, technical and commercial colleges should be opened to provide technical skill to the work force. Modern industry, agriculture, banking, transport and commerce require highly skilled persons. Health facilities should be provided to the labourers. A healthy worker can work more efficiently as compared to sick

worker. All the factory owners should open the health clinics in their factories and regular medical check-up should be compulsory. Various types of allowances like dearness and bonus must be increased. Special allowances should be given to the efficient workers. Government should also frame the strict labour laws. In case of accident, special compensation should be given. In case of industrial dispute, courts should be established. This step will provide the security to the labourers and they will work with full concentration. To provide the goods on lower rates to the labourers, special stores should be opened for the workers.

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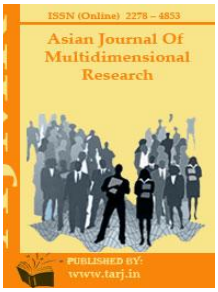

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EXPLORE CUSTOMER'S PREFERENCE FOR E-BANKING SERVICES IN COIMBATORE CITY

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ABSTRACT

Today, banking industry is going through a period of intense change, where global trends are affecting the banking business – increasing competition, liberalization, rising customer expectations, shrinking spreads, increasing disintermediation, competitive pricing and possibility of macro-volatility. Information technology has introduced new business paradigms and is increasingly playing a significant role in improving services in the banking industry. Therefore, the study throws lights on to the socio-economic profile of the respondents using e-banking services and to determine the factors that influence customer's preferences on e-banking services. The data was collected from 450 customers from Coimbatore city during the period June 2016 - November 2016. Besides averages and percentages, techniques like Kruskal-Wallis H test and factor analysis was used to analyse the data. The study found that major reasons for preferring e-banking services were security, privacy, liquidity and possibility for fund transferring from all three types of banks customers.

KEYWORDS: *Liberalization, Rising Customer Expectations, Shrinking Spreads, Increasing Disintermediation,*

INTRODUCTION

The main challenge before a developing nation is to foster sustainable growth. For growth or its recovery, the nation's productive capacity needs to be strengthened and expanded. In the development agenda, an important issue relates to the problem of the provision and delivery of the financial services and credit. Higher levels of financial developments are significantly and robustly correlated with faster current and future rates of economic growth, physical capital accumulation and economic efficiency improvements (King and Levine, 1993). It has been observed historically that banks formed the fulcrum of an economy, a basic instrument of economic growth and constitutes an important link in various socio-economic activities. It renders vital services to the masses belonging to various sectors of the economy like agriculture, industry whether small scale or large scale (Vashist, 1991). It is one of the few institutions that impinge on the economy and affects its performance for better or worse. It acts as a development agency and is the source of hope and aspiration of the masses (Sooden, 1992). Schumpeter (1993), the first modern economist regarded the banking system as one of the two key agents (the other being entrepreneurship) in the whole process of economic development. Banks have become the prime movers and pace setters for the achievement of socio-economic objectives of the country (Gupta, 1985).

Revolution in Indian IT sector has a great impact on the banking system in India. After the economic liberalization the use of computers, mobile phones and technology has increased many times as it was difficult for the Indian banks to work in par with the international banks without the use of IT. It was difficult for the Indian banks to compete with International banks in terms of customer services without the use of information technology. With the development of asynchronous technologies and secured electronic transaction technologies, however, more banks have come forward to use Internet banking both as a transactional as well as an informational medium.The new generation which has been banking for less than a decade prefers faster transactions and more professional relationships ascompared to the traditional customer. For them, opening a bank account is incidental and connected to their direct deposit salary accounts. (JhumkeeIyengar, ManishaBelvalkar, 2014)

In 2001, a Reserve Bank of India survey revealed that more than 20 major banks were either offering internet banking services at various levels or planned to do so in the near future. And in the same year, out of an estimated 0.9 million Internet user base, approximately 17 percent were reported to be banking on the Internet. The above statistics reveal that India does have a high growth potential for internet banking. The banks have already started focusing on increasing and improving their internet banking services. As a part of this, the banks have begun to collaborate with various utility companies to enable the customers to perform various functions online.

Private Sector and foreign banks are leading in providing Internet Banking services. Some of the private banks include ICICI Bank, HDFC Bank, IndusInd Bank, IDBI Bank, Citibank, Global Trust Bank, Bank of Punjab and AXIS Bank, and they had started capturing the market through Internet banking. Hence, the competition is increasing and the lack of technology can make a bank loses a customer. So, now the public banks are breaking the chains of traditional set-up and gearing up to face the competition from the private sector counterparts. Therefore, the present study attempt to explore the factors that determining customer's preference while utilizing the e-banking services.

OBJECTIVES OF THE STUDY

- To investigate the socio-economic and banking profile of the respondents using e-banking services.
- To determine the factors that influence customer's preferences on e-banking services.

HYPOTHESIS

- There is no difference in the perceptions of bank customers of public sector, private sector and foreign banks with regard to level of satisfaction in the services offered by the banks.

EARLIER STUDIES

Neha Dixit and SarojDatta (2010) investigated the factors which are affecting the acceptance of e-banking services among adult customers and also level of concern regarding security and privacy issues in Indian context. Primary data was collected from 200 respondents, above the age of 35, through a structured questionnaire. Descriptive statistics was used to explain demographic profile of respondents and factor and regression analyses were used to know the trend of internet use and factors affecting e-banking services among adult customer in India. The finding depicts many factors like security and privacy, trust, innovativeness, familiarity, awareness level increase the acceptance of e-banking services among Indian customers. The finding shows that in spite of security and privacy concern, adult customers are willing to adopt online banking if banks provide them necessary guidance. Based on the results of the study, it was recommended that bank managers should segment the market on the basis of age group and provide them necessary guidance regarding use of online banking.

RahmathSafeena, Abdullah and Hema Date (2010) evaluated those factors that manipulate the nature of customers towards online banking and their growing tendency towards the online financial institutions. Likert scale was used in order to identify the respondent's perception towards internet banking adoption. The questionnaires were based on customer's intention to adopt internet banking. Study concludes that majority of customers are accepting online banking because of many favourable factors. Analysis concluded that usefulness, ease of use of the system, awareness about online banking and risks related to it are the main perusing factors to accept online banking system. These factors have a strong and positive effect on customers to accept online banking system.

NorazahMohdSuki (2010) examined the factors that influence the internet banking adoption among Malaysian consumers. The study sample consists of 100 respondents. The measurement items were adapted from Taylor and Todd (1995); Tan and Teo (2000) utilizing the seven-point Likert scales ranging from 1–strongly disagree to 7–strongly agree. Data was analyzed by employing multiple regression analysis. The results show that Hedonic oriented internet banking sites; followed by the perceived importance of internet banking to banking needs and compatibility, all significantly affect the adoption of internet banking by Malaysian consumers. Trialability has the weakest influence for consumer internet banking adoption beside complexity, risk, and utilitarian oriented internet banking sites.

METHODOLOGY

The study was based on primary data. Public sector banks, private sector banks and foreign banks operating in Coimbatore city form the universe of the study. Together 42 banks were selected constituting 76 percent of the universe. From these selected banks, 450 customers were

selected by adopting purposive sampling technique. The data was collected by administrating a pre-tested interview schedule during the period June 2016 - November 2016. Besides averages and percentages, technique like Krusckal-Wallis test and factor analysis were used.

RESULTS AND DISCUSSION

Socio-Economic Profile of the Respondents

Banking has become a process of choice and convenience; better the service, higher the customer's inclination to a bank and vice-versa and e-banking is vital for both the banking industry and the customers. Hence an attempt was made in this study to identify the factors that determining their preference to use the e-banking servicesby the customers in Coimbatore city. The socio-economic profile of the customers as follows;

Sex: The use of e-banking facilities was not very popular among the females, which may be attributed to their being not technically savvy or another reason being that when husband gets a card from a private bank or other financial institution, they do give a supplementary or a complementary card to the spouse.

Age: The maximum preference for the e-banking was seen among population aged 20-30 years (42 percent) which supports the earlier findings, that younger generation prefer e-banking compared to older age group (Howcraft, 2002; Mobarek 2007), but contrary to the findings reported by Pew Internet and American Life Project (2002) which states that the highest category using online banking is more with people aged between 30 to 49 years.

Marital status: Majority of them were married (59 percent) and rest of them were unmarried. **Education:** Majority (42 percent) of them were graduates. Among the post graduates there was not much of a definite preference for e-banking services. Thus, there was a definite preference among the educated respondents for e-banking services.

Occupation: E-banking users were generally belonging to upper echelons of the occupation cadre.

Monthly income: More than 4/5th of the e-banking users earned above Rs.10,000/- per month, E-banking users were generally belonging to higher income strata.

PREFERENCE FOR E-BANKING SERVICES

The foremost question while examining the customer's perception about e-banking services is whether bank customers feel e-banking services are necessary. Keeping in mind the above statement, customers of public sector, private sector and foreign banks were asked to express their views regarding the reasons for preferring e-banking services. Twenty statements were prepared and customers were asked to state their opinion on these statements. The opinions were classified on a five point scale with designated attributes such as strongly agree/ agree/neutral/disagree and strongly disagree. Specified numerical weights was assigned for each attribute as 2, 1, 0, -1 and -2 respectively and the calculated average score are shown in table 1

TABLE-1
REASONS FOR PREFERRING E-BANKING–CALCULATED SCORES

S.No	Reasons	Public sector banks	Private sector banks	Foreign banks
1.	24*7 Accessibility	1.69	1.71	1.25
2.	Low hidden cost	0.85	1.26	1.08
3.	Easy availability	1.60	1.50	1.37
4.	Convenient location of ATM	1.55	1.50	1.35
5.	Security/less risks to use	1.27	1.32	1.27
6.	Speed of use	1.48	1.46	1.32
7.	Time savings	1.43	1.41	1.09
8.	To pay bills & make payment	1.51	1.33	1.14
9.	Effective & efficient	1.41	1.33	1.17
10.	Worldwide connectivity	1.33	1.36	1.08
11.	Privacy is maintained	1.44	1.35	1.01
12.	Liquidity	1.40	1.39	1.09
13.	Reliability	1.29	1.49	1.08
14.	Minimum balance	1.09	1.23	1.09
15.	Loan application/insurance	1.02	1.22	1.23
16.	Fund transfer	.99	1.07	1.15
17.	Demat holdings	1.13	1.24	1.22
18.	Online trading	1.44	1.49	1.29
19.	account alerts/updates	0.98	1.18	1.13
20.	User friendly	0.42	1.30	1.26
Average score		1.27	1.36	1.18

Source: Estimation based on Field Survey

The customers in public sector banks have strongly agreed that the major reasons for preferring e-banking services were '24 x 7 accessibility', 'easy availability', 'convenient location of ATM', 'speed of use', 'time saving', 'to pay bill/make payments', 'effective and efficient', 'world-wide connectivity', 'privacy', 'liquidity', 'reliability', and 'online trading' as all the statements have an average score above the mean score of 1.27. However, their perception regarding statements, such as 'minimum balance', 'loan application/insurance', 'fund transfer', 'demat holdings', and 'account alerts/updates' have mean score ranging between 0.98 to 1.13, which divulges that the

maximum number of customers of the public sector banks agreed on these issues, whereas they were neutral on 'user friendliness' of e-banking services.

Customers in private sector banks strongly agreed on the reasons for preferring e-banking to be '24x7 accessibility', 'easy availability', 'convenient location of ATM', 'security/less risk to use', 'speed of use', 'time savings', 'liquidity', 'reliability' and 'online trading', as all the statements have an average score above the mean score of 1.36. However, on other reasons for preferring e-banking, they agreed on all these issues, with the mean score ranging from 1.07 to 1.36.

Customers having account in foreign banks have stated the major reasons for preferring e-banking services were '24x7 accessibility', 'easy availability', 'convenient location of ATM', 'security/less risk to use', 'loan application/insurance', 'demat holdings', 'online trading' and 'user friendliness', as all these statements have an average score above the mean score of 1.18. They agreed on the remaining statements, with mean score ranging from 1.08 to 1.17.

To find whether there exists any significant differences in the reasons cited by the customers belonging to different banks for preferring e-banking, Kruskal- Wallis H test was applied. The null hypothesis tested was:

H_0: The reasons cited for preferring e-banking by the customers belonging to different banks did not differ.

H_a: The reasons cited for preferring e-banking by the customers belonging to different banks differed.

The calculated H value is shown in table 2.

TABLE-2
VARIABILITY IN THE REASONS FOR PREFERRING E-BANKING: KRUSKAL – WALLIS H TEST

Variable	H value	Degrees of freedom	χ^2 0.05	Inference
Reasons for preferring e-banking	10.268	2	5.99	Reject H_0

Source: Estimation based on Field Survey

The table shows that the customers did differ significantly on various issues related to the reasons for preferring e-banking.

Factor analysis

Factor analysis was used in the present study to identify the underlying pattern of relationship between various reasons for preferring e-banking and whether these reasons can be grouped in terms of a composite variable. To determine the appropriateness of applying factor analysis, the KMO and Bartlett's test measures were computed and the results are presented in table 3.

TABLE-3
KMO AND BARTLETT'S TEST MEASURES

Type of bank Measure	Public sector banks	Private sector banks	Foreign banks
KMO measures	0.713	0.682	0.789
Bartlett's test of Sphericity:	2062.00	988.95	1516.00

approx: chi-square			
Degrees of freedom	190	190	190
Significance	.000	.000	.000

Source: Estimation based on field survey

KMO statistics for customers in public, private and foreign banks were 0.713, 0.682 and 0.789 respectively signifying higher than acceptable adequacy of sampling. The Bartlett's test of sphericity was also found to be significant at one percent level providing evidence of the presence of relationship between variables to apply factor analysis.

The communalities for each variable were computed to determine the amount of variance accounted by the variables to be included in the factor rotations and the results are shown in table 4.

TABLE-4
COMMUNALITIES

Reasons	**Initial**	**Extraction**		
		Public sector banks	**Private sector banks**	**Foreign banks**
24/7 Accessibility	1.000	.715	.783	.680
Low hidden cost	1.000	.473	.719	.713
Easy availability	1.000	.723	.627	.786
Convenient location of ATM	1.000	.740	.670	.805
Security/less risk to use	1.000	.636	.714	.831
Speed of use	1.000	.632	.567	.752
Time savings	1.000	.760	.540	.846
To pay bills & make payment	1.000	.340	.705	.776
Effective & efficient	1.000	.644	.697	.743
Worldwide connectivity	1.000	.351	.656	.746
Privacy is maintained	1.000	.837	.655	.923
Liquidity	1.000	.834	.721	.865
Reliability	1.000	.686	.643	.813
Minimum balance	1.000	.795	.745	.845
Loan application/insurance	1.000	.878	.705	.871
Fund transfer	1.000	.873	.722	.781
Demat holdings	1.000	.772	.826	.790
Online trading	1.000	.658	.507	.665

Account alerts/updates	1.000	.667	.544	.736
User friendly	1.000	.744	.669	.549

Source: Estimation based on Field Survey

Extraction method: principal component analysis

All the variables had values greater than 0.50 signifying substantial portion of the variance accounted by the factors. Table 5a, 5b and 5c presents the Eigen values, their relative explanatory powers and factor loadings for 20 linear components identified within the date set. The Eigen value greater than one alone was considered for inclusion in the analysis.

TABLE-5a
ROTATED COMPONENT MATRIX- PUBLIC SECTOR BANKS

Reasons	**Component**					
	1	**2**	**3**	**4**	**5**	**6**
24/7 Accessibility				.783		
Low hidden cost						
Easy availability			.700			
Convenient location of ATM			.708			
Security/less risk to use						
Speed of use						
Time savings						.665
To pay bills & make payment						.
Effective & efficient				.707		
Worldwide connectivity						
Privacy is maintained	.879					
Liquidity	.876					
Reliability						
Minimum balance					.878	
Loan application/insurance		.915				
Fund transfer		.894				
Demat holdings						
Online trading						.803
Account alerts/updates					.734	
User friendly						
Eigen values	5.246	2.960	1.832	1.516	1.152	1.050

percentage of variance	26.232	14.802	9.162	7.579	5.761	5.249
Cumulative percentage	26.232	41.034	50.197	57.775	63.536	68.786

Source: Estimation based on Field Survey

Extraction method: principal component analysis

Rotation method: Varimax with Kaiser Normalization, rotation converged in 20 iterations

TABLE-5b
ROTATED COMPONENT MATRIX- PRIVATE SECTOR BANKS

Reasons	**Component**						
	1	**2**	**3**	**4**	**5**	**6**	**7**
24/7 Accessibility						.840	
Low hidden cost					.768		
Easy availability			.668				
Convenient location of ATM			.814				
Security/less risk to use			.652				
Speed of use			.689				
Time savings							
To pay bills & make payment				.817			
Effective & efficient				.775			
Worldwide connectivity							
Privacy is maintained							
Liquidity							
Reliability	.792						
Minimum balance	.772						
Loan application/insurance							
Fund transfer		.740					
Demat holdings		.887					
Online trading							
Account alerts/updates							
User friendly							.787
Eigen values	4.256	2.229	1.846	1.482	1.358	1.152	1.093
percentage of variance	21.281	11.143	9.228	7.142	6.790	5.762	5.467
Percentage of cumulative	21.281	32.345	41.652	49.065	55.854	61.616	67.083

Source: Estimation based on Field Survey

Extraction method: principal component analysis

Rotation method: varimax with Kaiser Normalization, rotation converged in 20 iterations

TABLE-5c
ROTATED COMPONENT MATRIX- FOREIGN BANKS

Reasons	Component			
	1	2	3	4
24/7 Accessibility	.723			
Low hidden cost	.804			
Easy availability	.753			
Convenient location of ATM				
Security/less risk to use	.847			
Speed of use				
Time savings				.843
To pay bills & make payment				.770
Effective & efficient				
Worldwide connectivity				.706
Privacy is maintained		.905		
Liquidity		.779		
Reliability		.792		
Minimum balance		.720		
Loan application/insurance			.789	
Fund transfer			.728	
Demat holdings			.720	
Online trading				
Account alerts/updates		.715	.	
User friendly				
Eigen values	10.990	2.056	1.386	1.083
Percentage of variance	54.951	10.280	6.931	5.414
Percentage of cumulative	54.951	65.231	72.163	77.576

Source: Estimation based on Field survey

Extraction method: principal component analysis

Rotation method: varimax with Kaiser Normalization, rotation converged in 20 iterations

The results indicates that for the sample data, Eigen value of the first six factors alone was greater than one for customers belonging to public sector banks, the first seven factors for private sector banks and for customers in foreign banks Eigen value of the first four factors was greater than one indicating that these factors alone were appropriate for inclusion in the analysis. For customers in public sector banks six factors together accounted for nearly 69 percent of the variations in the factors; for private sector bank customers seven factors accounted for 67 percent of the variations in the factors and for customers belonging to foreign banks, the first four factors accounted for nearly 78 percent of the variations in the factors.

For customers belonging to public sector banks, factor 1 has significant loadings for two dimensions namely 'privacy' and 'liquidity'. These two dimensions together explained nearly 26 percent of the variance. Factor 2 has significant loadings for two dimensions namely 'loan application' and 'fund transfer' and explained nearly 15 percent of the variance. Factor 3 has significant loadings for two dimensions namely 'easy availability' and 'convenient location of ATM' and explains 9 percent of the variance. Factor 4 had significant loading on two dimensions namely '24x7accessibility' and 'effective and efficient' and explains nearly 8 percent of the variance. Factor 5 had significant loadings on two dimensions namely 'minimum balance' and 'account alerts/updates' and explained 6 percent of the variance. Factor 6 has significant loadings on two dimensions namely 'time saving' and 'online trading' and explains 5 percent of the variance.

For customers belonging to private sector banks, factor 1 had significant loadings on two dimensions namely 'reliability' and 'minimum balance'. These factors accounted for nearly 21 percent of the variance. Factors 2 had significant loadings on two dimensions namely 'demat holdings' and 'fund transfers' and explains nearly 11 percent of the variance. Factor 3 had significant loadings on four dimensions namely 'easy availability','convenient location of ATM', 'security/less risk to use' and 'speed of use' and explains 9 percent of variance. Factor 4 had significant loadings on two dimensions namely 'to pay bills and make payment' and 'effective and efficient' and explains nearly 7 percent of the variance. Factor 5 had significant loadings on one dimension namely 'low hidden cost' and explain 6 percent of the variance. Factor 6 had significant loadings on one dimension namely '24x7 accessibility', which explained 7 percent of the variance and factor 7 had significant loadings on one dimension namely 'user friendly', explaining nearly 6 percent of the variance.

For customers belonging to foreign banks, factor 1 had significant loadings on four dimensions namely 'low hidden cost', 'security/less risk to use', '24x7 accessibility' and 'easy availability'. These factors together accounted for nearly 55 percent of the variance. Factor 2 had significant loadings on five dimensions namely 'privacy', 'liquidity', 'reliability', 'minimum balance' and 'account alerts/ updates' and explains 10 percent of the variance. Factor 3 had significant loadings on three dimensions namely 'loan application/insurance', fund transfers', and 'demat holdings' and explains 7 percent of the variance. Factor 4 had significant loadings on three dimensions namely 'time saving', 'to pay bills/make payments' and 'worldwide connectivity' and explains nearly 5 percent of the variance.From the above discussion it can be inferred that:

- The main reasons cited by public sector bank customers for preferring e-banking services are privacy, liquidity, loan application/insurance, fund transfer and easy accessibility.
- For private sector bank customers, the major reasons for preferring e-banking services were reliability, minimum balance, and possibility for fund transferring and demat holdings.

- Customer belonging to foreign banks it was low hidden cost, security, privacy, liquidity, reliability and low minimum balance.

CONCLUSION

Indian banking industry, today is in the midst of an information technology revolution. Adoption of electronic banking service is fast gaining ground in India. Different e-banking channels such as electronic card, internet banking and mobile banking service etc., have been introduced, which offers benefits to both banks and customers. Hence the study found that major reasons for preferring e-banking services were security, privacy, liquidity and possibility for fund transferring from all three banking customers.

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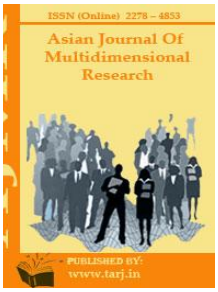

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DIGITALISATION FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

The global development agenda changes from the Millennium Development Goals (MDG) to Sustainable Development Goals (SDG). The sustainable development can be achieved through environmental, economical and social factors. Due to the development in the digital era these factors of growth can be combined with digitalization and sustainable development can be achieved. Digitalisation helps in Digitalisation helps the companies to reap efficiency gains, Helps the state to carry out the administration in an effective way, helps to improve political participation and helps in easy access to services. Inspite of the benefits the digitalisation faces risks such as monopolisation, unemployment and polarisation of the labour market, abuse, unequal access and use etc., In order to be competitive with digitalization for sustainable growth properbandwith should be ensured along with a regulatory frame work to promote healthy competition for innovation and to provide proper education for adoption of digitalization. This leads to subsidies and penalties with the name of "economization of environmental/social aspects of sustainability". The associated business models are such that in many cases suppliers are willing to subsidize the required communication infrastructures and offer services free or at very low cost to the user. Apart from that a regulatory framework should there to promote long term competition and innovation in the digital economy as well as to prevent abuse. Educational system should also be modified for the adoption of digitalization.

KEYWORDS: *Sustainable Development, Digitalisation, monopolisation, polarisation*

INTRODUCTION

In the wake up of digitalization megatrends such as mobile internet, the internet of things and big data, digital innovations are creating development opportunities faster than ever. Digital is a vital driver for decent work, growth and well-being, and is having a profound impact across all sectors. The internet and digital technologies can and will boost economic, social and political development, including by vastly expanding the capacity of individuals to enjoy their right to freedom of speech and expression, which is key to empowering human rights.

Pillars of Sustainable Development

Sustainability has been a hot topic for a many years. It is increasingly evident that the supply of raw materials is limited and the way we use them can have significant knock on effect on the world around us:

PHASE I

The three main components of sustainable development were: Environment, Economic and Social.

Environment

Initially – around the 1980s – environmental aspects of sustainability were the primary focus, with concerns about air pollution and acid rain. Later other environmental aspects such as water and other natural resources, biodiversity, clean energy, agriculture and food were included. At present the theme of Climate Change is also included.

Economic

After the first waves of euphoria, many people and organisations began questioning why they should invest in environmental protection that only served to increase costs and impact bottom line results. This attitude was reinforced by several economic crises and slowing economic cycles, with the result that companies and governments tended to focus on measures that could directly deliver lower costs or other financial benefits. This leads to subsidies and penalties with the name of "economization of environmental/social aspects of sustainability".

Social

Over the last few decades, companies have focused on the direct economic aspects of sustainability (e.g. minimization of energy consumption helps reduce costs and therefore generates ROI and profit), today we face the challenge that sustainability is needed to ensure on-going quality of life, but those who need to invest in the required long-term technologies, solutions and polices are not likely to be those that will be able to benefit from them. The social aspect of sustainability thinking becomes a key success factor for our planets longer term future wellbeing.

PHASE II

The Third Digital Revolution

The third digital revolution is happening from the beginning of the 21st century and will arguably create as much disruption and potential for change as the invention of writing around 3200 years BC; and the invention of printing in the sixteen century. By 2018, we anticipate 4.5

Bn smartphones, 25 Bn connected objects and more than 1.5 Bn of us engaged in on-line Social Networks.

Smartphone applications, social networks and sensors will generate data which can be used to present additional value add services to users through using localization and context. With the consent of users, this data can be used by business partners to offer personalized and contextualized services back to the users. The associated business models are such that in many cases suppliers are willing to subsidize the required communication infrastructures and offer services free or at very low cost to the user. This gives rise to the Economy of Data: a nascent discipline based upon the theory of Multisided Market which will further fuel the Digitalization of the society - provided that users trust the Platform vendors and are willing to share data about themselves.

PHASE III

Digitalistion and Sustainable Development

The rise of new digital technologies helps in sustainable development in the following ways.

Environment

The emergence of the Internet of Everything (Connected Objects and people) will generate vast amounts of data that with the application of Analytics and visualization techniques .Unlocking such insights will enable us to discover patterns for more sustainable behavior e.g.:

- improving forecasts of natural events or disasters
- optimizing global agricultural production and food supply
- anticipating traffic congestion and managing low emission zones
- limiting energy production up to the precise needs of consumers
- Discovering defects in, or imminent failure of specific product components, allowing preventative maintenance that avoids failure and more costly repair / replacement.

Economic

In most cases, there are tangible positive economic benefits to be gleaned from sustainable approaches to business: Less waste, less energy consumption, time saved.

For large companies engaging actively, there are additional effects:

- they attract consumers who are motivated by environmental concerns
- they limit the "bottom-line" impact of the rising of energy price and environmental taxes
- The "Cloud" approach to IT service provision means that investment in new technologies and sustainable business processes does not have to be prohibitive, with solutions being generally commoditized with commercial approaches driven by the consumer mentality of availability anywhere, anytime and "only pay for what you use".

Social

Digital revolution will genuinely change the game, making possible a new model of society, based on sharing – a key principle of sustainability thinking.

- New economic models, where for instance sharing some of the personal data gives the access to free -or freemium- services, are quite useful for creating new ways of collaboration.
- Economy of sharing will rise through ad-hoc social networks, encouraging further growth in the already established car sharing and apartment rental market. It is interesting to observe how Blablacar, leader in car sharing, highlights the environmental benefits of its services and at the same time positions its service "new approach for travelling together".
- Ethical projects, where there is generally limited funding for upfront investments, will be facilitated through crowdfunding: trust is needed but sustainability is generally a world of trust.
- Mobility is obviously a way to enhance availability and connectivity, but it brings many more sustainable benefits through providing contextual information which allows the right decision at the right moment. Users can take advantage of schedule optimization and intelligent service provision delivered right place, right time.
- Smart Cities, enhanced by mobility, social networks and connected objects, is not only an efficient way to manage a city and improve its environmental footprint, it also enables new era for citizen engagement.
- Industry 4.0 is certainly a major breakthrough in delivering environmental benefits to industry and its supply chain. It will be also a major step towards the "reinvention of work" as work becomes more collaborative, flexible and agile. The workplace will adapt to specific and changing needs with work increasingly becoming a thing we do rather than a place we go.

Finally, the digital revolution is also an opportunity for emerging countries to leapfrog the constraints that are all too common in the "legacy burdened" old world. But there is an underlying question: "how do we make sure they avoid similar mistakes to those made by the lead nations in the first industrial revolution?"

Recent years have seen a proliferation of digital technologies throughout the economy and in everyday life. The challenges and opportunities presented by this development are the subject of increasing debate in the media, society, and the policy community.

Huge opportunities for promoting the development process

Digitalisation offers huge opportunities for promoting the development process. The following are some of the assistance by the digitaliastion towards development

- Digitalisation helpsthe companies can reap efficiency gains. New business models, jobs and innovations can be created, leading to greater economic dynamism (growth, productivity and income). ICT can also contribute to enhancing
- The state's administrative activities can be done efficiently with the help of digitalisation, e.g. through the digitalisation of processes in the civil registration system, fiscal administration, the management of expenditure, in traffic management, or in collaboration between different ministries and administrative levels.
- Digitalisation can also help improve political participation (e.g. through feedback mechanisms), providing more transparency and uncovering corruption.
- Easy access to services is possible. The Internet and mobile telephony, private households gain faster and much easier access to information, and are able to use better and less

expensive products and services (e.g. mobile banking, m-health and e-learning), while new platforms for representing their interests give them a greater say in politics.

In spite of the benefits digitalization hasan **adverse impact** such as monopolisation, unemployment and polarisation of the labour market, abuse and unequal access and use

- Monopolisation: the economy of the Web (economies of scale and near-zero incremental costs) may enable Internet companies (e.g. search engines, social networks) to acquire a dominant position and squeeze other providers out of the market. The lack of competition means that prices rise and those companies that survive create less innovation.
- Unemployment and polarisation of the labour market: the increasing automation of routine tasks may result in employees, especially those who are poorly qualified, losing their jobs or being exposed to particular wage pressure, while demand for highly qualified, technically skilled specialist's increases. This leads to a polarised labour market with, on the one hand, an eroded middle class and, on the other, more and more employees in the higher and lower income distribution bands.
- Abuse: digitalisation also creates new ways in which data can be misused (e.g. phishing, hacking). Repressive political regimes in particular may utilise digital technology to monitor their citizens more closely or manipulate them, instead of further empowering them.
- Unequal access and use: Over 60% of the world's population have no Internet access. At the same time, with technical access as it now stands, the costs particularly for broadband Internet vary widely and may, in developing countries, be many times higher than in industrialised countries. As a result of this, large population groups are effectively prevented from using these technologies.

RESEARCH METHODOLOGY

Based on the details available in the literature a study was conducted among 30members in and around Coimbatore. 30 Samples were selected using simple random sampling. Structured questioner was used to collect information about the opinion of the members regarding the pillars of sustainable development, benefits of digitalization towards growth and the risk faced by the digitalization towards sustainable growth.

ANALYSIS AND INTERPRETATION

Based on the data collected from 30 respondents in and around Coimbatore the analysis was made with the help of mean scoring to find out the opinion of the members regarding the pillars of sustainable development, benefits of digitalization towards growth and the risk faced by the digitalization towards sustainable growth.

The following tables depict the results.

TABLE 1 PROFILE OF THE RESPONDENTS

Demographic factor	Valid no.	Percentage (%)
Gender		
Male:	17	56.7
Female:	13	43.3
Occupation		
Education	6	20
Health	9	30
Rural Development	10	33.3
Agriculture	5	16.7

The samples selected were 17 male and 13 female members. And out of that 10 were engaging in rural development sector, 6 in education, 9 in health and 5 in agriculture sector.

TABLE 2 OPINION ABOUT PILLARS OF SUSTAINABLE DEVELOPMENT

Factors	Mean Score	Rank
Environment	3.77	1
Economic	3.4	2
Social	3.00	3

As per the opinion of the respondents environmental factors is considered as the first pillar followed by economical factors andsocial factors towards sustainable development.

TABLE 3 OPPORTUNITIES FOR PROMOTING THE DEVELOPMENT PROCESS THROUGH DIGITALISATION

Qualities	Mean Score	Rank
Digitalisation helps the companies can reap efficiency gains	3.40	4
The state's administrative activities can be done efficiently with the help of digitalisation	3.50	3
Digitalisation can also help improve political participation	3.54	2
Easy access to services is possible	3.77	1

With the help of digitalization the is an opportunity towards easy access to various services which in turn leads to constant growth.

TABLE 4 CHALLENGES FACED THROUGH DIGITALISATION IN SUSTAINABLE DEVELOPMENT

Challenges	Mean Score	Rank
Monopolisation	2.47	4
Unemployment and polarisation of the labour market	3.03	3
Abuse	3.17	1
Unequal access and use	3.09	2

Because of digitalization there is chance of abusing the available data if there is no proper security available. Moreover due to the infrastructural facilities there can be the unequal access and use of the service through digital.

CONCLUSION

It can be seen that not all countries and population groups benefit to the same extent from digital technology's potential. Indeed, existing inequalities in income, education and political involvement may even be exacerbated.

A key focus here must be there on bridging the digital divide by ensuring universal and affordable broadband Internet access, most of all for deprived regions and target groups. This access is absolutely essential if we are to make the most of the economic and social opportunities of digitalisation for sustainable development. Apart from that a regulatory framework should there to promote long term competition and innovation in the digital economy as well as to prevent abuse. Educational system should also be modified for the adoption of digitalization. Digital applications should be tailor made in order to cater to the needs and skills of the poor and disadvantaged population groups

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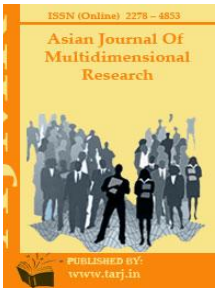

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UGC APPROVED JOURNAL

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CREATING AWARENESS ON HIV/AIDS AMONG SELF-HELP GROUP WOMEN

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ABSTRACT

We have entered the 21st century which is the Era of AIDS. Since the first case was detected in USA in 1981th, the HIV/AIDS epidemic continues its expansion across the globe. The Human Immuno deficiency Virus (HIV) - the virus that causes AIDS- was identified in 1983. Extensive spread of HIV appears in the late 1970s and early 1980s among men and women with multiple sexual partners in east and central Africa and homosexual and bisexual men in certain urban areas in America Western Europe, Australia and New Zealand. In India the first cases of HIV infection and of AIDS were detected in 1986. SHGs are homogenous group of persons usually not more than 20-25 individuals who join as a voluntary basis in order to undertake the economic activity as thrift. The aim of this study is to create awareness on HIV/AIDS, asses their knowledge on HIV/AIDS, evaluate the knowledge gained. The locale selected for the study was Perinaickenpalayam Panchayat Union, Coimbatore district. 150 SHG women were selected by using Random Sampling Method. Interview Schedule was used to collect required information. The findings of the study are Knowledge gained on reproductive health and sexual hygiene. Knowledge gained on HIV/AIDS. Knowledge gained by SHG women on health programmes for women. AIDS does not discriminate caste, creed, race, and religion, educational or social status. Prevention of AIDS is our joint responsibility. Education and awareness is the only weapon in our hand. Let us accept the challenge to fight against AIDS.

KEYWORDS: *Expansion, Epidemic, Discriminate Caste, Hygiene,*

INTRODUCTION

We have entered the 21st century which is the Era of AIDS. In the recent human memory no other disease has produced so much fear, anxiety and dread as HIV/AIDS. Since the first case was detected in USA in 1981th, the HIV/AIDS epidemic continues its expansion across the globe. It affects all levels of society from individuals to nations. (Kumar A.2003).HIV infection today affects about 4.8 million Indian. No state in our country is free from HIV virus. Highest number of HIV infection has been reported from Maharashtra and Tamil Nadu. About half of those infected with HIV will develop AIDS within 10 years of infection, and the vast majorities are expected to develop the disease. In fact the epidemic has become the most serious health problem faced by our country since the independence. (Uma, 2003).

The Human Immuno deficiency Virus (HIV)- the virus that causes AIDS- was identified in 1983. Extensive spread of HIV appears to have begun in the late 1970s and early 1980s among men and women with multiple sexual partners in east and central Africa and homosexual and bisexual men in certain urban areas in America Western Europe, Australia and NewZealand. Now the virus is being transmitted in all countries. In India the first cases of HIV infection and of AIDS were detected in 1986.

A self-help group is defined as a voluntary personal interaction and mutual help and act as a means of altering or ameliorating problems perceived as alterable, pressing and personal by most of its participation. The concept of SHG serves to underline the principle, by the people and of the people.SHGs are homogenous group of persons usually not more than 20-25 individuals who join as a voluntary basis in order to undertake the economic activity as a thrift and credit or use of common asset on a basis of equality nurturing trust.

FUNCTIONS OF SHG'S

A). Group meeting:

The periodicity of the meeting could be weekly fortnightly or monthly the time of the meeting should be such that it is convenient to majority of the group members.

B). Evolution of byelaws:

The group has to decide on a set of rule and decision making arrangements for its function. The byelaws could include criteria for membership saving, loans, function etc.

C). saving mobilization:

The group has to decide on the amount as also the periodicity of saving the members. The members of the group must save accordingly.

D). Loaning activity:

The group must decide the purpose for which loan will be given, in addition to the rate of interest, repayment period and the loaning process.

E). Recycling of funds:

The recovery of both principle and interest on loans is essential. The rotation of the capital is also important. The capital is formed by the savings of the group members as also from contributions from outside.

F). Leadership:

Generally there are 2 to 3 group leaders with different designations, such as president, secretary the treasurer. The election process also varies from weekly rotation to as long as 5 year period.

G). Maintenance of books:

The books maintained by SHG's are saving registers, loan register, meeting proceeding and attendance books. Individual's passbooks in some cases are also maintained. The books are to be maintained by group members themselves.

H). Group discipline:

The group must function democratically and disciplined manner. The repayments ethics, effectiveness of peer pressure implementation of byelaws and sanctions reflect the discipline and dynamics of the group.

I). Group Sustainability:

The group sustainability depends to a larger extent on how the group promote its formative stages. The promoter has to take sufficient precautions for the group to come together on self-help motive participate actively and image its affairs democratically.

REVIEW OF LITERATURE

The literature pertaining to the study entitled, "Creating Awareness on HIV/AIDS among Self Help Group women" is reviewed under the following heads;

A. Health status of women in India.
B. Basic facts on HIV/AIDS and problem faced by people living with HIV.
C. Role of SHG in women empowerment and
D. Research studies.

A. HEALTH STATUS OF WOMEN IN INDIA

Good health is a major resource for social, economic, and personal development and an important dimension of quality of life. Human Resource Development is fostered by a mosaic of factors such as education, health, water supply and housing the basic needs. The economic characteristics of developing countries are reflected in their health characteristics good health is a crucial part of wellbeing. But spending on health can also be justified on purely economic grounds. Good health reduces production loses caused by worker – illness (Pattanick, 2001).

Women's empowerments as well as their participation on the basis of equality in all spheres of society and economy are fundamental to the advancement of human rights, social justice and sustainable development. The position of women is definitely changing all over the world in India as well. Women play a greater role in economic decision making. Even where women enjoy equal rights in the family property, such rights are not recorded.Women's development can become a reality only when an environment is created which will influence her thinking and lifestyle to evolve as an improved personality (Patel, 2003).

B.FACTORS AFFECTING WOMEN'S HEALTH:

a). Fertility

b). Status of women

c). Education

d). Work

e). Utilisation of health service

f). Cultural factors

Fertility is an important contributory for a Female mortality and morbidity. In our child birth closely follows marriage which occurs at a young age (30% of Indian women are married between 15 to 19 years).Education enables people to think rationally and logically education is an extremely important determinant. Women are sometimes burdened with multiple productive functions.

Improving women's health has significant benefits not only for women but for their children and the national economy. To a larger extent, the wellbeing of children depends on their health of their mother. Improving in women's health increase personal and family wellbeing and productivity today help to ensure healthier generations tomorrow. Women's health was a well-marked space in the overall development of a country. The care women provide to the children, determines child health and survival.

Management of Sexually Transmitted Diseases (STD)

STDs are those diseases which are transferred via the mucous membrane and secretions of the sexual organs throat and rectum. Most STDsare easy to treat. If they are not detected and treated early the infection may spread and cause complication that may even lead to some common STDs like Gonorrhoea, Chlamyclia, Syphilis, Cancroid, Genital Herpes, Trichomoniasis, Candidiasis and Donovanosis.

B. Basic facts on HIV/AIDS and problem faced by people living with HIV

AIDS stands for Acquired Immuno Deficiency Syndrome. HIV like other viruses is very small, too small to be seen with an ordinary microscope. Viruses cause all sorts of diseases from flu to help to some kind of cancer. HIV attacks mainly a subset of immune system cells which bear a molecule called CH4. These are the cells that help the normal functioning of the immune system.Vulnerability is understood as a limitation of the extent to which women are capable of making and effecting free and information decisions, with in the context of HIV/AIDS, it translates as the lack of power on the part of a woman to regulate or minimize the risk of exposure to HIV.

A) Physical Factors

The AIDS epidemic in women is overwhelmingly heterosexual, almost entirely in Africa and south East Asia. In other areas, a proportion of women are infected through

a) Their own drug injecting use
b) Heterosexual sex without these factors
c) Blood transfusion.

Modes of Transmission

HIV ENTERS IN THE BODY in the following ways:

a) Sexual intercourse with the infected persons.
b) By transmission of infected blood.

c) By an infected mother to her foetus or during child birth.
d) By infected blood, blood products, needles,syringes or other instruments.

Problems faced by people living with HIV

People living with deal not only with medical problems, but also with social and emotional problems.

- People living with HIV in a state of depression throughout their lives.
- Being infected with HIV or having AIDS causes hysteria, fear, loss of hope and helplessness in individuals and their family members.
- People with HIV infection and disease – often go through periods of chronic and acute illness or pain and often need support in adjusting to the realities of the situation.
- Being infected by HIV or having AIDS is usually associated with stigma, a fact that makes it difficult to relate early with society.

People who live with HIV infection and disease experience many social problems too. These may include family disintegration

- Lack of employment
- Lack of income
- Lack of accommodation
- Lack of ability to care and sustain the family
- Lack of support for children

CHARACTERISTICS AND OPERATIONS OF SHG

- Voluntary membership
- Participatory planning
- Education and training
- Resource mobilization
- Self-management
- Anti-bureaucracy
- Empowerment building
- Linkage building
- Process extension and Movement building
- Monitoring and Evaluation
- Sustainability

C). ROLE OF SHG IN WOMEN EMPOWERMENT:

- Recognizing women's contribution, women's knowledge.
- Helping women to fight their own fears, and feelings of an in adequacy and inferiority.
- Women enhancing their self-respect and self-dignity.
- Women controlling their bodies.
- Women becoming economically independent and self-reliant.
- Women controlling resources like land and property.
- Reduce women's burden of work, especially within the home.
- Creating and strengthening women's groups and organizations.
- Promoting qualities of nurturing, curing, gentleness not just in women but also in men.

METHODOLOGY

The methodology used in this study is discussed under following headings

A. Planning the study
B. Conducting an action programme and
C. Evaluating the study

A. Planning the study: It includes the following aspects

- Locale
- Sample
- Tools
- Data collection

1. **Locale:** The locale selected for the study was Perinaickenpalayam Panchayat Union, Coimbatore district.
2. **Sample:** 150 SHG women were selected by using Random Sampling Method when each and every item in the universe has a known chance of being chosen for the study.
3. **Tools:** Interview Schedule was used to collect required information. Under this method there is a face to face contact with the person from whom the information is to be obtained.
4. **Data Collection:** The initial level of knowledge of the rural women was found out by using an Interview Schedule. Based on the findings an action programme was planned

B. Conducting an action programme:

An action programme is an education the leaders and the people to identify the needs and to plan programme in which they are in partnership with each other and able to assist them (Tiwary, 2001)

C. Evaluating the project:

Evaluating means judging the value of something (Reddy, 2002). Evaluation is the process of determining the extent to which objectives have been attained. It is the process of systematically drawing upon experience as a means of making future effortsmore effective.

FINDINGS AND CONCLUSION

The findings of the study are summarized under following heads,

- Knowledge gained on reproductive health and sexual hygiene.
- Knowledge gained on HIV/AIDS.
- Knowledge gained by SHG women on health programmes for women

A. Knowledge gained on reproductive health and sexual hygiene

i. Knowledge gained on Reproductive Tract Infection

The components of HIV/AIDS are reproductive tract infections and sexually transmitted infections. The women are the victims of reproductive tract infection. The selected women were not aware of the reproductive tract infection though some of them had been affected by the same.

ii. Knowledge gained on contraceptive measures

In order to improve the health conditions of the women and as part of reproductive health education, the symptoms of sexually transmitted infection were discussed and taught to them. Infections in urinary tract are leading causes for major chronic illness.

iii. Knowledge gained on contraceptives measures

Family welfare can promote women's health through the prevention of unwanted pregnancies, limiting number of birth, proper spacing, timing of birth, foetal health and reduction of infant mortality and promotion of child development. Only a very few women were aware of contraceptive methods namely female and male sterilization but after the education they came to know the different methods of contraceptives. They understood population control is one of the chief issues which the country has to resolve and accord to march towards better social and economic development.

B. Knowledge gained on HIV/AIDS

i. Knowledge gained on modes of Transmission

50% of the selected samples are aware that sexual intercourse was the mode of transmission for HIV/AIDS, 20% were aware that unsterilized needles and 10% on infected mother to child transmission.

ii. Knowledge gained on prevention of HIV/AIDS

Prevention of HIV/AIDS such as using condom or safe sex, check blood prior to transfusion ,sterilised needles and syringes and to avoid pregnancy when affected with disease. Only a very few women were aware of prevention of HIV/AIDS. Everyone had gained knowledge on what is safe sex and how to check the blood transmission.

iii. Knowledge gained on risk conditions of HIV/AIDS

There is risk that HIV can be passed from one person to another through unprotected sex. Since semen and vaginal fluids have high risk concentration of virus. It is myth that HIV will spread by touching or shaking hands. This is because HIV is not an airborne, water borne or food borne virus. Also the virus does not survive for very along outside the human body. Therefore ordinary coughing, shaking hands and sharing cutlery will not result in the transmission of virus. Before the education the women had little knowledge about the low risk and high risk factors, which leads to HIV/AIDS. After the education all the selected women gained knowledge on low risk factors such as kissing, oral sex, unprotected anal sex and unprotected vaginal sex and high risk factors such as drugs, having intercourse with same or opposite sex and blood transfusion.

iv. Knowledge gained on window period

Window Period is the length of time after infection that is takes for a person to develop through specific antibodies to be detected by current testing methods. If an individual engages in unsafe sex or shares drug infection equipment id becomes infected the body will make antibodies are developed, the HIV antibody test will come back positive. Before education 24% of women knew the meaning of the window period, but after education all the 150 women were aware of the window period.

v. Knowledge gained on Dual Protection

Dual Protection means the simultaneous prevention of STIs and unwanted pregnancy. Before education only 30% of women were aware of dual protection but after education all the 150 women gained knowledge on dual protection.

C. Knowledge gained by SHG women on health programmes for women

Majority of the SHG women were not aware of health problems. It was encouraging to note that all the women became aware and also promised to utilize these programmes for the betterment of their health.

CONCLUSION

AIDS does not discriminate caste, creed,race,religion,educational or social status. Prevention of AIDS is our joint responsibility. Education and awareness is the only weapon in our hand. Let us accept the challenge to fight against AIDS. We must support and care for the people with HIV/AIDS with compassion and understanding.

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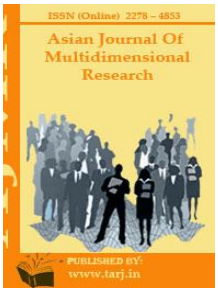

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GROUP DYNAMICES OF SELF HELP GROUPS

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ABSTRACT

Self help group is defined as a self governed, peer restricted information group of people with analogous socio-economic background and having a desire to perform together common purpose. Self help group be able to assemble small savings either on weekly or monthly source from persons who were not likely to have any savings. It is effectively recycle the resources generated among the members for meeting the productive and emergent credit needs of members of the group. The study has undertaken with the objectives to Study the socio-economic profile of women, Analyze the performance and members satisfaction and Asses the group cohesiveness. The size of the sample is 60 SHG women. The area of the study was conducted in Madukarai Block in Coimbatore district of Tamil Nadu State. The finding of the study indicate that majority of SHG women has a proper clear vision on its function in self help groups. SHG women joining together and understanding each group members, it helps to support the financial and increase the income generation of women in the group through various activities, training and making them self dependent. . The members derive their strength from the group which enhances their sense of competence and confidence. Women become more social and open in their approach and they able to perform well in all the activities. Since long the Self-Help Group (SHGs) has played a major role in the awareness creating and economic upliftment of women.

KEYWORDS: *SHG, Women, Group*

INTRODUCTION

People's participation in the development process is a major factor in determining the destiny of the people in rural areas. Rural development has been redefined as a widely participatory process of rural transformation, intended to bring about social and material advancement including equality and freedom for majority of the people through gaining greater control over their environment. People's participation is a per-condition for success of rural development programmes which demands active and conscious participation of all the people for whom the project is conceived.

From time immemorial, people have organized themselves at the grass root level for collective advocacy and for searching of solutions to specific problems. In recent years, group approach for poverty alleviation has been gaining recognition in the Asian countries. In India, such mutual help based group is known as Self Help Group (SHG). SHG is conceptualized as a voluntary gathering of 15-20 homogenous people, who share the same type of needs or the same type of problems, which are not being addressed by others (**Sharma, 2001**).

The Self-Help Groups (SHGs) are viable alternatives in achieving the objectives of women empowerment. Individually poor woman tends to be erratic and uncertain in her bahaviour. Participation of woman in SHGs makes a significant impact on their empowerment both in social and economic terms. It helps to bring about awareness among rural women about savings, education health, environment, cleanliness, family welfare etc. and make themselves reliant .SHG is a powerful instrument for lowering risks and cost of lending to the poor particularly women. (**Shete, 1999**).

II. REVIEW OF LITERATURE

According to Chawla and Patel (1987) self-help organization is an entity, set up and run by the local people, who are also the beneficiaries of the programmes. It has a close organizational structure, but strong commitment and a sense of purpose. NABARD (1992) while documenting the mechanism of organization of SHG as a sub system in primary agricultural co-operative societies has defined SHG as "a group or association of individuals with common economic needs, who undertake a systematic economic activity pertaining directly to decision-making and sharing benefits on an equitable basis".

Rappaport (1987) viewed that SHGs, which offer the venue for shared experience, emotional support and social learning, can help constitute a social identity. Yalom (1995) contended that SHGs provide unique opportunity for growth, social experimentation and change.NABARD (1995) opined, "A self-help organization denotes an institutional frame work for individual or households who have agreed to co-operate on a continuing basis to pursue one or more objectives. It is further observed that self-help organization is a Membership organization, which implies that its risks, costs and benefits are shared among its members on an inevitable basis and that its leadership for their deed".

Ramesh (1993) while studying SHGs concludes that members share common perception on needs and belong to almost same economic and social status. And also from inculcating socially desirable habit and ethics amongst the members, the four-in-one rule of SHGs are a money lender (advantage only), a development bank (without cumbersome procedures), a co-operative (without external interference and inflexibility) and a voluntary agency (help, awareness, education and overall development).

III. RESEARCH METHODOLOGY

INTRODUCTION:

Research methodology is a way to systematically solve the research problem. It gives an idea about various steps adopted by the researcher in a systematic manner with an objective to determine various manners.

Title of the Study: Title of the study is "Group Dynamics of Self Help Groups".

OBJECTIVES OF THE STUDY: TO

- Study the socio-economic profile of women.
- Analysis the performance of women in self help group.
- Assess the group cohesiveness.

SOURCE OF DATA:

PRIMARY DATA

The data were collected directly from the Self Help Groups women, Madhukari Block, Coimbatore District, Tamil Nadu.

Sample size: The study sample constitutes 60 Women from Self Help Group.

Sampling Area: The locale selected for the study from Madhukari Block, Coimbatore District. Hundred Self Help Groups were organized under westic NGO, out of which 10 Self Help Groups were selected randomly for the present study.

COLLECTION OF DATA:

Primary data refers to the collection of data, using methods such as interviews and questionnaires (corbetta, 2008). The required information was collected by interview schedule. Socio-economic background of the member's .In order to measure the performance of women and the group cohesiveness of women self Help Group 13 and 17 statements respectively were prepared and administered to get required information.

Data analysis and interpretation:

The data thus collected were consolidated, tabulated and analyzed with appropriate statistical tools such as: Frequency and percentage

Frequency and simple percentage

- To calculate the simple percentage method, the following formula was used.

  Simple percentage= (number of responses / total number of sample)* 100

IV. TABULATION, ANALYSIS AND INTERPRETATION:

SOCIO-ECONOMIC PROFILE OF WOMEN

S.NO	DETALIS	RESOPENDENTS (NO:60)
1.	Age	Percent
	25-30	18
	30-45	32
	45 and Above	50
2.	Literacy level	
	Primary	22
	High school	43
	Higher secondary	6
	Illiterate	29
3.	Marital status	
	Married	87
	Un married	10
	Widow	3
4.	Types of family	
	Nuclear	83
	Joint	17
5.	Community	
	BC	70
	SC/ST	16
	OC	14
6.	Religion	
	Hindu	95
	Muslim	3
	Christian	2

- The above table describes the socio economic background of women such as age, education, marital status, types of family, community and religion.

- Regarding the age-wise distribution 18 percentage of women belonged to the age group of 25-30 and 32 percentage of women belonged to the age group of 34-45, and 50 percentage of women belonged to the age group 45 and above.
- Regarding the educational status 22 percentage of women had primary education, Forty three percentage of women had High school education, six percentage of women had Higher secondary, and 29 percentage of women were illiterates.
- Eighty seven percentage of women are married, and 10 percentage are un married, and the remaining three percentage of women are widows.
- Eighty three percentage of women belonged to nuclear family while 17 percentage of women belonged to joint family.
- Regarding the community wise distribution 70 percentage of women belonged to the Backward community and 16 percentage of women belonged to SC/ST, and the remaining 14 percentage of women belonged to Other Caste.
- Ninety five percentage of women are the followers of Hinduism and three percentage of women are the followers of Islam remaining two percentage of women are the followers of Christianity.

TABLE -II
PERFORMANCE OF WOMEN IN THE SELF HELP GROUP

S.NO	STATEMENT	Agree NO=60 %	Undecided NO=60 %	Disagree NO=60 %
1	Group has a clear vision on its function.	90	2	8
2.	Everyone in the group has a vital function	95	3	2
3	Group has a good communication.	85	5	10
4	Group meeting are attended by all the group members.	100	-	-
5	The group provide training For the members.	75	-	25
6	Group members communicate well with one another.	90	-	10
7	Group support in income generating activities.	80	-	20

8	Group has a positive impact.	90	-	10
9	Participating in discussion and group decisions	85	5	10
10	Able to go to bank alone.	85	5	10
11	Able to get bank loan.	85	5	10
12	Group helped in distribution of loan.	90	5	5
13	Able to settle loans.	90	5	5

A key ingredient of a thrift and credit group is its ability to bind its members together by instilling in them a feeling of mutual trust and confidence. Group members are expected to develop the habit of appreciating each other's point of view. Group enable the members to share their own views and abilities with each others, subject themselves to group norms and values, surrender a part of their own interests and judgment, shed their prejudices and smoothen their angularities. The members derive their strength from the group which enhances their sense of competence and confidence. Women become more social and open in their approach and they able to perform well in all the activities.

The above table explains that the group has a clear vision on its function (90percentage), every women in the group has vital function(95percentage), the group members able to communicate their views and share the views of others(85 percentage), all the women attending the meeting regularly (l00 percentage), training were imparted to women (75 percentage), group shows the viability to its members to start the income generation activities (80 percentage), all the women participate in group discussion and decisions (85 percentage), women can able to go to the bank and transaction of money by herself(85 percentage), and get bank loans (85 percentage),apart from bank loan, the needy women can get loan from the group (90 percentage) and they have the habit of repay the loan regularly(90 percentage).

Sl. No.	STATEMENT	Agree NO=60	Undecided NO=60	Disagree NO=60
		%	%	%
1.	Co-operative relationship among the group members.	100	-	-
2.	The group members are less informative due to absence Of inter-communication among the members.	5	-	95
3	Group decisions are taken by the office bearers only.	5	-	95

4	Group binds itself for beneficiary selection.	95	-	5
5	The members are submissive to leaders.	5	-	95
6	Responsibility of the group is not equally shared by all the members.	5	-	95
7	Democratic atmosphere prevails in group meeting.	5	-	95
8	There is absence of strong we feeling among the group members.	5	-	95
9	Members exhibit mutual trust among themselves.	95	-	5
10	Peer group pressure leads to prompt repayment.	95	-	5
11	Members feel shy to express their views.	5	-	95
12	Caste conflicts disturb group action.	-	-	100
13	Cold relationship prevails between leader and members.	-	-	100
14	Transparency of dealings promotes group cohesiveness.	95	-	5
15	Group conflict is resolved by group discussion.	100	-	-
16	Group action promotes collective mobilization of resources.	95	-	5
17	Members express sense of satisfaction with regard to their achievements.	95	-	5

Groups differ in the degree of cohesiveness. The extent to which members are knit together depends on strength of interpersonal attachment and communication. Several factors contribute to group cohesiveness, group size, composition, goals, status differentials, age, caste, and education etc. of members. Higher the degree of group cohesiveness, greater is the group performance satisfaction and participation. Group cohesiveness is an important indicator of how much influence the group as a whole has over the individual members. It is defined as the degree to which members are attracted to one another and share the group's goals. Cohesiveness causes more harmonious behaviour in group members. To assess the group Cohesiveness among the selected Self help Group women, 17 statements were framed and

collected the required information. The women revealed that they have a co-operative relationship (100percentage), they were well informed about the activities of the group due to proper communication (95 percentage),the group members together make the decision on the proper functioning of the group(95 percentage),women enjoyed freedom of selecting the beneficiaries(95percentage),they are sharing the group responsibilities (95percentage),they had developed a we feeling (95 percentage),and had mutual trust among themselves(95 percentage). The women developed the habit of regular repayment of loans (95 percentage), they have freedom to express their views (95 percentage), absence of caste conflicts (1 00 percentage) and harmonious relationships prevails among the leader and the members (100 percentage) It leads to collective action.

Group action leads to collective mobilization of resources (95 percentage) and members expressed the sense of satisfaction with regard to their achievements. This shows that the group solidarity and Cohesiveness is found among the selected women Self Help Groups.

V. FINDINGS, SUGGESTIONS AND CONCLUSION:

The findings of the study are summarized under the following heads:

A. Socio- economic profile of women.

B. Analysis the performance of women in the self help group.

C. Asses the group cohesiveness.

A. Socio- economic profile of women

- Regarding the age-wise distribution 18 percent of women belonged to the age group of 25-30 and 32 percent of women belonged to the age group of 34-45, and 50 percent of women belonged to the age group 45 and above.
- Regarding the educational status 22 percent of women had primary education, Forty three percent of women had High school education, six percent of women had Higher secondary, and 29 percent of women were illiterates.
- Eighty seven percent of women are married, and 10 percent are un married, and the remaining three percent of women are widows.
- Eighty three percentage of women belonged to nuclear family while 17 percent of women belonged to joint family.
- Regarding the community wise distribution 70 percent of women belonged to the backward community and 16 percent of women belonged to SC/ST, and the remaining 14 percent of women belonged to other caste.
- Ninety five percent of women are the followers of Hinduism and three percent of women are the followers of Islam remaining two percent of women are the followers of Christianity.

B. Performance of women in self help group

- The group has a clear vision on its function (90percent), every women in the group has vital function(95percent), the group members able to communicate their views and share the views of others(85 percent), all the women attending the meeting regularly (100

percent), training were imparted to women (75 percent), group shows the viability to its members to start the income generation activities (80 percent), all the women participate in group discussion and decisions (85 percent), women can able to go to the bank and transaction of money by herself (85 percent), and get bank loans (85 percent),apart from bank loan, the needy women can get loan from the group (90 percent) and they have the habit of repay the loan regularly(90 percent).

C. Group cohesiveness

- To assess the group Cohesiveness among the selected Self help Group women, 17 statements were framed and collected the required information. The women revealed that they have a co-operative relationship (100percent), they were well informed about the activities of the group due to proper communication (95 percent), the group members together make the decision on the proper functioning of the group (95percent), women enjoyed freedom of selecting the beneficiaries (95percent), they are sharing the group responsibilities (95percent),they had developed a we feeling (95 percent),and had mutual trust among themselves(95 percent).
- The women developed the habit of regular repayment of loans (95 percent), they have freedom to express their views (95 percent) absence of caste conflicts (100 percent) and a harmonious relationship prevails among the leader and the members (100 percent) it leads to collective action.
- Group action leads to collective mobilization of resources (95 percent) and members expressed the sense of satisfaction with regard to their achievements. This shows that the group solidarity and Cohesiveness is found among the selected women Self Help Groups.

D. SUGGESTIONS:

- The group members should be made insight that self-help group are not only means of taking loan or credit rather it provides the opportunity to improve their socio-economic conditions.
- There should be regular evaluation and monitoring of SHGs through different agencies like government, bankers, NGOs, etc.
- All members of SHGs need to be imparted a leadership training and eventually there has to be rotation in leadership to ensure functioning of SHGs on more Democratic basis.

E.CONCLUSION:

The social development is based upon the active participation of women in developmental activities. In this regard the Self-Help Group (SHGs) can play a vital role in the socio-economic upliftment of women. The Self-Help Group (SHGs) is viable alternative to achieve the objectives of rural development and to get community participation in all rural development programmes. They enhance the equality of status of women as participants, decision maker and beneficiaries in the democratic, economic, social and cultural spheres of life. Since long the Self-Help Group (SHGs) has played a major role in the awareness creating and economic upliftment of women.

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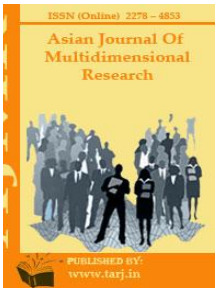

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REACHING OUT TO FAMILIES THROUGH WOMEN AND REACHING OUT TO COMMUNITY THROUGH FAMILIES BY KUDUASHREE UNITS: A SPECIAL REFERENCE TO KERALA

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ABSTRACT

There are various microfinance institutions, Self Help Groups playing very important role in financial inclusion. The Kudumbashree programme was initiated by Government of Kerala in 1998. The slogan of the mission is "Reaching out to families through women and reaching out to community through families". The concept was developed by NABARD and Government of Kerala through joint initiative as a poverty eradication programme, women empowerment and rural development. Kudumbashree covers more than 60 per cent of the households in Kerala and gives prime importance for the economic empowerment of the indigent masses, especially the poor women of Kerala. Kudumbashree now became benchmark for all other self-help groups in India. Though its efforts to engage women in civil society in development issues and opportunities, Kudumbashree in association with the local self-government of Kerala is charting out new meaning and possibilities for local economic development The present study is a descriptive in nature based on survey method. Non probabilistic convenience sampling technique is used to collect data. Eighty (80) respondents were selected and data collected through a questionnaire from members of Kudumbashree unit of Kuravilangad Panachyat, Kottayam dist. The collected data was analysed with the help of percentage. Based on the findings of the study some factors can be considered for effective performance of Kudumbashree units.

KEYWORDS: *Microfinance, Financial Inclusion, Kudumbashree unit*

INTRODUCTION

Microfinance has assumed immense importance throughout the world in view of its efficacy in credit dispensation, loan repayment and reduction of poverty. The experience world over has proved that hassle free and repetitive dose of credit is the basic need of the poor which has become the hallmark of microfinance. Several countries like Bangladesh, Indonesia, Philippines, Kenya and Bolivia have implemented microfinance programmes with encouraging results. In the Indian context, the microfinance sector has witnessed an unprecedented growth in the last few years and has firmly established itself as significant potential contributor in the government's agenda of "Financial Inclusion". Financial services for the poor have proved to be a powerful instrument for poverty reduction that enables the poor to build assets, increase incomes, and reduce their vulnerability to economic stress. Microfinance aims at providing broad range of financial services such as deposits, Loans, payment services, money transfers, insurance to poor and low-income households and their micro enterprises. Micro finance serves as an umbrella term that describes the provision of banking services by poverty focused financial institutions (micro finance institutions) to poor parts of the population that are not being served by mainstream financial services providers.

In the Indian context, the microfinance sector has witnessed an unprecedented growth in the last few years, and has firmly established itself as significant potential contributor in the government's agenda of "Financial Inclusion". Financial services for the poor have proved to be a powerful instrument for poverty reduction that enables the poor to build assets, increase incomes, and reduce their vulnerability to economic stress. However, with nearly one billion people still lacking access to basic financial services, especially the very poor, the challenge of providing financial services to them remains. Convenient, safe, and secure deposit services are a particularly crucial need.

Microfinance is an enabling, empowering, and bottoms-up tool to poverty alleviation that has provided considerable economic and non-economic externalities to low-income households in developing countries. Microfinance is being hailed as a sustainable tool to combat poverty, combining a for profit approach that is self-sustaining, and a poverty alleviation focus that empowers low-income households. Microfinance is increasingly becoming a tool to exercise developmental priorities for governments in developing countries. In order to ensure that the poorest benefit from this growth, and also contribute to it, the expansion and improvement of the microfinance sector should be a national priority. Micro-finance programmes have, in the recent past, become one of the more promising ways to use scarce development funds to achieve the objectives of poverty alleviation.

MICROFINANCE AND FINANCIAL INCLUSION

Microfinance is increasingly being considered as one of the most effective tools of reducing poverty. Microfinance has a significant role in bridging the gap between the formal financial institutions and the rural poor. The Micro Finance Institutions (MFIs) accesses financial resources from the Banks and other mainstream Financial Institutions and provide financial and support services to the poor. MFIs could play a significant role in facilitating inclusion, as they are uniquely positioned in reaching out to the rural poor. Many of them operate in a limited geographical area, have a greater understanding of the issues specific to the rural poor, enjoy greater acceptability amongst the rural poor and have flexibility in operations providing a level of comfort to their clientele.

WORKING OF KUDUMBASHREE PROGRAMME

FORMATION OF WOMEN COLLECTIVES

The poor women from families were identified in to the Neighbour Hood Groups (SHGs) representing 15 to 40 families. A five-member team elected from the NHGs will be the cutting edge of the programme. It will be federated democratically in to Area Development Societies (ADS) and then in to Community Development Societies (CDS) at the Panchayath level. The organizational structures will provide opportunities for collective public action.

MEETINGS

Weekly meetings of NHGs, sharing of experiences, discussions, organized /unorganized trainings etc, will broaden their outlook on better health, better education, better social and economic status. To facilitate economic development, suitable skill up gradation trainings will be given to women.

Thrift Credit Operations and 24 Hour Banking System

Small savings generated at the families are pooled at various levels as thrift and used to attract credit from banks, which will operate as 24- hour bank for the poor, acting as a subsystem of the formal banks. The need identified at NHG level is shaped as micro plans, which are integrated in to mini plans at ADS level and action plan at CDS level. Kudumbasree promote self-help approach for building houses, latrines, etc availing the minimum support from government.

OBJECTIVES OF KUDUMBASHREE PROGRAMME

1. Identification of the poor families through risk indices based surveys, with the active participation of the poor and the communities to which they belong.
2. Empowering the poor women to improve the productivity and managerial capabilities of the community by organizing them in to Community Based Organizations.
3. Encouraging thrift and investment through credit by developing Community Development Societies to work as informal bank of the poor.
4. Improving incomes of the poor through improved skills and investment for self-employment.
5. Ensuring better health and nutrition for all.

REVIEW OF LITERATURE

Kudumbashree project - A poverty eradication programme in Kerala

Performance, Impact and Lessons for other states are found that Kudumbashree is a unique programme that has an edge over many SHG programmes in other Indian states. It is pointed that at first, the membership of NHG under Kudumbasree is restricted to women from poor families while it is open to all to participate in SHG. He further added that micro credit is the only tool for poverty reduction among members of SHGs in states other than Kerala as it remains one of various effective tools in Kudumbasree programme. (John, 2009)

Economic development of women leads to better living status in the family, educational, nutritional, and the health needs of the children were well satisfied. Economic independence

through kudumbashree improves the social participation of its members. (Kenneth Kalyani and Seena P C, 2012)

Rural women's empowerment is the best strategy for poverty eradication in rural areas" identified that the aim of the Kudumbasree scheme is to improve the standard of living of poor women in rural areas by setting up micro credit and productive enterprises. (Nideesh, 2008)

Microfinance should be considered an interlinking vehicle between financial inclusion and improving standard of living. There should be deliberate platform to improve the income and earning of the member through participative productive activities (Guha and Gupta, 2005). In most cases women tend to use the micro financing for the consumption smoothening, the inference of which may be that the poor find it difficult in financing their daily transactions (Rajashekar, 2005).

The participation in the micro financing activities helps the poor in maintaining a more stable income than they are not part of the micro financing activities. The most striking advantage is the thrift component, which has totally relieved the group members from the money lender. (Jaya Anand, 2000).

OBJECTIVES OF THE STUDY:

1. To understand the performance of Kudumbashree unit.
2. To study the working system of Kudumbashree project.
3. To analyse the problems in the administration of the units of Kudumbashree project.
4. To study the future prospects of Kudumashree units

RESEARCH METHODOLOGY

The study was conducted in Kuravilangad Panchayat of Kottayam district of Kerala, and among the selected members from Kudumbashree unit. There are 12 Kudamshree units out of which 80 respondents are selected for the study. The study was done through a questionnaire.

Sample Size: 80 samples were used for the study.

Statistical tool used: Simple statistical tool like percentages were used to analyse the collected data

RESULT AND DISCUSSION

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Demographics	No. of Respondents	Percentage
Age		
21 – 35	38	48
36-50	29	36
Above 50	13	16
Education		
Below SSLC	41	51
SSLC	32	40
Graduate	07	9
Annual Income		

10000-20000	41	51
20000-30000	27	34
Above 30000	13	16

Source: Primary data

Inference: Forty eight percent (48) of the respondents are coming under the age of limit 21-35, 36 percent are of the age group of 36-50 and 16 percent are above the age of 50. It is inferred from table 1 that majority of the Kudumbasree workers are the age category of 21-35.

More than half of the respondents having education below S.S.L.C, 40 percent having SSLC education and 9 percent are graduates as the data of table 1. It is found that major number of workers having education below SSLC.

Fifty one percent of the respondents are having annual income less than 20,000 a year while 34 percent having income of between 20,000-30000 a year and 16 percent above R.30,000 a year. It is concluded that majority of the respondents are having annual income of 10,00-20,000.

TABLE 2: NO. OF YEAR'S ASSOCIATION WITH KUDUMBASHREE WORK

No. of Years	No. of Respondents	Percentage
Less than 1 year	16	20
1-2 years	12	15
2-3 years	42	53
More than 3 years	10	12

Source: Primary data

Inference: Twenty (20) percent of the respondents having experience with kudumabasree work less than one year while 53 percent having 2-3 years association and only 12 percent with more than 3 years. It is inferred from the data of table 2 that majority that respondents having an experience of 2-3 years.

TABLE 3: BENEFITS TO RESPONDENTS AS A MEMBER OF KUDUMBASHREE

Benefits	No. of Respondents	Percentage
Increased in savings	16	20
More awareness in banking knowledge	30	38
Easy access to loan	26	33
Increase in spending	8	10

Source: Primary data

Inference: Twenty percent of the respondents having increased their savings, 38 percent having more awareness about banking knowledge and 33 percent agreed that they more easy access bank loan, but 10 percent of the respondents pointed that their spending habit has been increased. It is inferred from table 3 that majority of the respondents have more awareness about banking knowledge.

TABLE 4: MONTHLY SAVINGS OF THE MEMBERS

Savings amount	No. of Respondents	Percentage
Less than 500	42	53
500-1000	28	35
More than 1000	10	12

Source: Primary data

Inference: Fifty three (53) percent of the respondents having a monthly saving of less thanRs.500, while 35 percent having a saving range of 500-1000 per month and only 12 percent respondents having more than Rs. 1000 as their monthly saving. It is found the data of table 4 that majority of the respondents having a saving of Rs. 500-100 per month.

TABLE 5: DETAILS ABOUT MODE OF SAVING

Mode	No. of Respondents	Percentage
Weekly	80	100
Monthly	00	00

Source: Primary data

Inference: All the respondents are contribution their saving on weekly basis as per the data of table 5.

TABLE 6: PURPOSE OF LOAN TAKEN BY THE MEMBER

Purpose for which loan is taken	No. of Respondents	Percentage
Agriculture	14	18
Education	20	25
Marriage	16	20
Self employment	30	37

Source: Primary data

Inference: Eighteen percent (18) of the respondents for agriculture, 25 percent for education of their children, 20 percent for the marriage of children or dependants and 37 per cent for self employment purpose. From the data of table 6 it was found that 80 percent of the respondents are utilizing the loan for productive purpose or income generation schemes.

FINDINGS OF THE STUDY

1. The majority of the respondents under the study comes under to the age group of 21-35 (table1).
2. It is found that 53 cent of the members are 2-3 years of association with the group.
3. The study reveals that members are more awareness about banking matters.
4. The majority of the members utilising loan amount for income generating purpose.

RECOMMENDATIONS OF THE STUDY

1. The Government role is very important to support this kind of micro-finance institutions. So, promotion of this kind project throughout the nation and it should cover the unreached population.
2. The group members are motivated to take participation in the related Government programmes.
3. Guidance may be given to members for effective utilization of micro credit.
4. The unit should function with transparent basis and politically neutral.
5. Effective training programme can be arranged to create awareness among the members about the new initiatives of the Kudumbashree project.
6. Entrepreneurship development programme can be arranged.

CONCLUSION

The performance is satisfactory but there is necessary to take some initiatives to efficient performance of unit. The members admitted that, their socio-economic status improved after joining this unit. Kudumbashree is a largest women empowerment programme in the country and became the life-line of poor women in the state of Kerala. It has got the national and international recognition as an ideal and workable model of participatory development for eradicating poverty. To conclude, women empowerment leads to economic development of the region through the Kudumbashree project.

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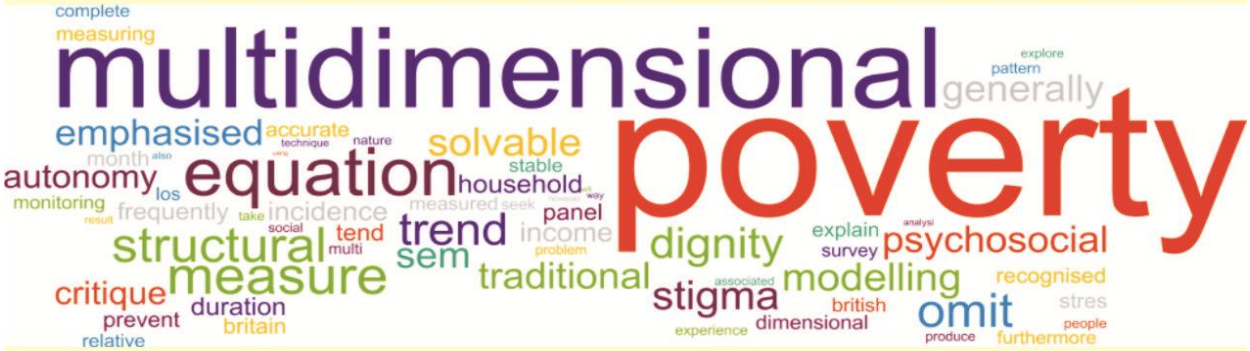

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