INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

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STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESIS (ES)

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

LIMITATIONS

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- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

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- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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WEBSITES

- Garg, Bhavet (2011): Towards a New Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

A STUDY ON GOOD SUGGESTIONS FOR WOMEN EMPOWERMENT THROUGH SELF HELP GROUPS

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ABSTRACT

A self-help group (SHG) is a village-based committee usually composed of 10–20 local women. A mixed group is generally not preferred. Most self-help groups are located in India, though SHGs can be found in other countries, especially in South Asia and Southeast Asia. Members make small regular savings contributions over a few months until there is enough capital in the group to begin lending. Funds may then be lent back to the members or to others in the village for any purpose. In India, many SHGs are 'linked' to banks for the delivery micro credit. A self-help group may be registered or unregistered. It typically comprises a group of micro entrepreneurs having homogeneous social and economic backgrounds, all voluntarily coming together to save regular small sums of money, mutually agreeing to contribute to a common fund and to meet their emergency needs on the basis of mutual help. They pool their resources to become financially stable, taking loans from the money collected by that group and by making everybody in that group self-employed. The group members use collective wisdom and peer pressure to ensure proper end-use of credit and timely repayment. This system eliminates the need for collateral and is closely related to that of solidarity lending, widely used by micro finance institutions. To make the bookkeeping simple, flat interest rates are used for most loan calculations. Self-help groups are started by non-governmental organizations (NGOs) that generally have broad anti-poverty agendas. Self-help groups are seen as instruments for goals including empowering women, developing leadership abilities among poor people, increasing school enrollments, and improving nutrition and the use of birth control. Financial intermediation is generally seen more as an entry point to these other goals, rather than as a primary objective This can hinder their development as sources of village capital, as well as their efforts to aggregate locally controlled pools of capital through federation, as was historically accomplished by credit unions. Many self-help groups, especially in India, under NABARD's 'SHG Bank Linkage' program, borrow from banks once they have accumulated a base of their own capital and have established a track record of regular repayments. This model has attracted attention as a possible way of delivering micro-finance services to poor populations that have been difficult to reach directly through banks or other institutions. "By aggregating their individual savings into a single deposit, self-help groups minimize the bank's transaction costs and generate an attractive volume of deposits. Through self-help groups the bank can serve small rural depositors while paying them a market rate of interest." NABARD estimates that there are 2.2 million SHGs in India, representing 33 million members, that have taken loans from banks under its linkage program to date. This does not include SHGs that have not borrowed.[4] "The SHG Banking Linkage Programme since its beginning has been predominant in certain states, showing spatial preferences especially for the southern region – Andhra-Pradesh, Tamil Nadu, Kerala and Karnataka. These states accounted for 57 % of the SHG credits linked during the financial year 2005–2006. An economically poor individual gains strength as part of a group. Besides, financing through SHGs reduces transaction costs for both lenders and borrowers. While lenders have to handle only a single SHG account instead of a large number of small-sized individual accounts, borrowers as part of an SHG cut down expenses on travel (to and from the branch and other places) for completing paper work and on the loss of workdays in canvassing for loans. The decrease of 1990 witnessed growth of various people's organization. In this context the role of self help groups (SHG's) especially of women has assumed a critical challenge as self help groups approach is the key element of social mobilization. Linked with micro finance, the SHG approach and movement has now been accepted as an effective intervention strategy for poverty alleviation. The researcher has studied and he has given some good suggestions for Women empowerment through self help groups. The paper shows that the detail text about good suggestions for Women empowerment through self help groups.

KEYWORDS

self help groups, women empowerment.

INTRODUCTION

UNDP has identified two vital processes, the first being social mobilization and collective agency, as poor women often lack the basic capabilities and self – confidence to counter and challenge existing disparities and barriers against them. Often, change agents are needed to catalyze social mobilization consciously. The Second is the process of social mobilization that needs to be accompanied and complemented by economic security. As long as the disadvantaged suffer from economic deprivation and livelihood insecurity, they will not be in a position of mobilization (UNDP, 2001). (United National Development Programme)

With the above brief conceptual understanding of empowerment, what strategies can be used effectively to empower women. In many developing countries (especially in South Asia). One strategy which has been found to be promising is participatory institution building in the self – help groups, often coupled with savings and micro credit loans. A closer look at the impact of these schemes on the empowerment of women reveals a mixed picture, with positive aspects and some limitation.

Mayoux's (2000) definition of empowerment relates more directly to power, as "a multidimensional and interlinked process of change in power relations" it consists of: one is "power within", enabling women to circulate? their own aspirations and strategies for change; another one is "power to", enabling women to develop the necessary skills and access the necessary resources to achieve their aspirations; third one is "power with", enabling women to examine the circulate their collective interests, to organize, to achieve them and to link with other women and men's organization for change; and lastly "power over; changing the underlying in inequalities in power and resources that constrain women's aspirations and their ability to achieve them. These power relations operate in different spheres of life (e.g., economic, social, political) at different levels (e.g., individual, household, community, market, institutional) etc.

ISI researches identified six general areas or domains in which empowerment of women is believed to be taking place as a result of Grameen Bank, BRAC and other credit programmes; a sense of self and vision of future, mobility and visibility economic security, status and decision making power within the household, ability to interact effectively in the public sphere and participation in non – family groups. Thus, their concept of empowerment can be looked at in a behavioural sense as the ability to take effective action (Snow, 1990).

A Self Help Group consist of 10 – 20 members drawn from a relativity homogenous economic class (i.e. poor), self selected on the banks existing affinities and mutual trust; members meet regularly at a fixed time and place and pool their savings into a common fund from which they take need based loans. The group develops its own rules and regulations and sanctions for violations; the meeting procedures and processes, leadership change norms, intensive training and hand holding, are designed to enable SHG to function in a partipatory and democratic manner. The objectives of the SHGs go beyond thrift and credit and include the overall development of members in the social, political, cultural and economic areas; thus the SHGs are "credit plan institutions".

Self Help Groups intermediated by micro credit have been shown to have positive effects on women with some of these impacts being ripple effects. They have played valuable roles in reducing the vulnerability of the poor, through asset creation, income and consumption smoothing, provision of emergency assistance, and empowering and emboldening women by giving them control over assets and increased self – esteem and knowledge (Zaman, 2001).

Studies in several countries point out that, loans are sometimes used for consumption smoothing and not production. It has been pointed out that the poor often have short – term liquidity needs (frequently requiring lump – seem payments), which would normally be met by unserious money tenders if other financial sources such as micro credit were not available. Sudden and debilitating shocks can force poor households into disempowering situations of distress. During the Asian economic crisis, self – help micro credit groups served as important cushions and safety nets. A high proportion of the funds made avail\able for self – help micro credit schemes were utilized by women, enabling them to meet the subsistence of their families during there difficult economic times (ESCAP 2002). Many self – help programmes have also incorporated elements health insurance and emergency loans, there by serving as private safety nets.

Another set of indicators, which are more intrinsic, revolves around changing gender relations within the household. In the field studies undertaken for the IFAD gender mainstreaming review, women who generated increased income through self – help schemes reported that they had gained greater respect within the household, often with perceptible attitudinal change. Men have been reported to offer little resistance towards the enhanced economic activity of women because such activities were seen as contributing to household well – being. Men and older children have also been reported to be helping with household duties and with the income – generating activity. In Bangladesh, women and older children have also been reported to be helping with household duties and with the income – generating activity. In Bangladesh, women showed a good deal of empowerment in their capacity to articulate their needs and in – their receptivity to new ideas. More impressive was the emergence of women's groups as a dynamic, articulate constituency (Krishnaraj and Kay 2002). These first – hand observations and in – depth interviews appear to validate the findings of other studies (Cheston and Kuhin 2002).

Self – help groups, especially linked to micro credit schemes, have not been without their critics, nor are they a panacea for meeting challenges in economic and social development. It is widely recognized that such schemes are not universally successful. For example, some studies have shown that micro credit will not work in locations that do not have sufficient cash based market activity, they are isolated and with – low population densities, or are largely self – contained with few outside ties. Some pointed out that while micro credit schemes can reduce vulnerability, they have not lifted women out of object poverty, or have taken a long time to demonstrate any significant impact. On their own, micro credit schemes have instructions as they cannot team form social relations and the structural cases of poverty. Thus a broader issue remains: what role, if any, can these schemes have in transforming a society? In many societies, discrimination against women and gender inequality is the result of structural impediments and problems built into the social order, often reinforced by culture and tradition. To bring about social transformation, two important dimensions have to be considered access, ownership and control of productive sources; and inclusion in the decision – making process.

Self help groups have been instrumental in empowerment by enabling women networks and do not usually obtain business or political favors as they command few economic resources and frequently on time and non – monetized labour exchange. However, self help groups, when combined with savings and credit, have enabled women to benefit economically by monetizing their contributions and in the process have empowered them to become agents of changes.

A related aspect is that self – help groups have facilitated the formation of social capital, where people learn to work together for a common purpose, in a group or organization (Putnam 2000). The ability to associate depends on the degree to which communities share norms and values and are able to subordinate individual interests to those of larger groups. Out of these shared values come trust, with the potential for social, economic, and political change. However, there groups are narrowly focused on micro credit, which although useful as on entry point, can also limit and confine their groups to very small – scale activities with limited impact beyond their immediate family.

With the success of the groups, further technical assistance has been provided through other Government Departments such as the Department of Industrial Promotion (for Basis Business Skills Training and Trade Promotion activates such as exhibitions) and the Ministry of Health (for Occupational Health such as proper lighting). The Department of Skills Development is arranging for courses to improve member's skills further to increase value addition for the group's products. The co–ordinate role of different government departments in nurturing (but not directing) the entrepreneurial ability of there groups is note worthy.

The decrease of 1990 witnessed growth of various people's organization. In this context the role of self help groups (SHG's) especially of women has assumed a critical challenge as self help groups approach is the key element of social mobilization. Linked with micro finance, the SHG approach and movement has now been accepted as an effective intervention strategy for poverty alleviation.

CONCEPT OF WOMEN EMPOWERMENT

The concept of empowerment has been the subject of much intellectual discourse and analysis for the purpose of this discussion, the conceptual frame work expounded by United Nations is a useful starting point (United Nations 2001). Empowerment is defined as the processes by which women take control and ownership of their lives through expansion of their choices. Thus, it is the process of acquiring the ability to make, strategic life choice in a context which this ability has previously been denied. The core elements of empowerment have been defined as agency, (the ability to define one's goals and act upon them) awareness of gendered power structures, self esteem and self-confident (Kabeer 2001). Empowerment can take place at a hierarchy of different levels – individual, household community and societal and is facilitated by providing encouraging factors (e.g. exposure to new activities, which can blind capacities) and removing inhibition factors (e.g. Lack of resources and skills).

Empowerment is a word with so much meaning handed into it. It means recognizing women's contributions and their knowledge. It means enhancing their self respect and self dignity. It means women controlling their resources; it means women becoming economically independent.

It means being able to forget their tears, anxiety, their feelings of inadequacy, inferiority etc.

DEFINITIONS OF WOMEN EMPOWERMENT

According to Moser (1989) empowerment is the capacity of women to increase their self – reliance and internal strength. This is identified as the right to determine choices in life and to influence in direction of change through the ability to gain control over material and non – material resources. In the words of clothes but CK and Stuart (1992) we need not "empowerment women but "power man".

According to Pillai (1995) "Empowerment is an active multi dimensional process which enables women to realize their full identity and powers in all spheres of life.

Hoshemi (1996) developed five indictors to measure women's empowerment: mobility, economic security, ability to make larger purchases, realize freedom from domination within the family and political and legal awareness and involvement in political campaigning and protests with this in mind. An attempt is made in the following situation to measure empowerment of women respondents.

Empowered women define their attitude valued and behavior in relation to their own real interests. They claim their freedom empowered women respond as equals and co – operate in order to work toward common good.

Women empowerment allows women to be appreciated and acknowledged for who they are and what they do. Once recognized, they act more effectively. They develop a capacity to boldly face the social facts of their actual situation. They are able to come to a better understanding of themselves.
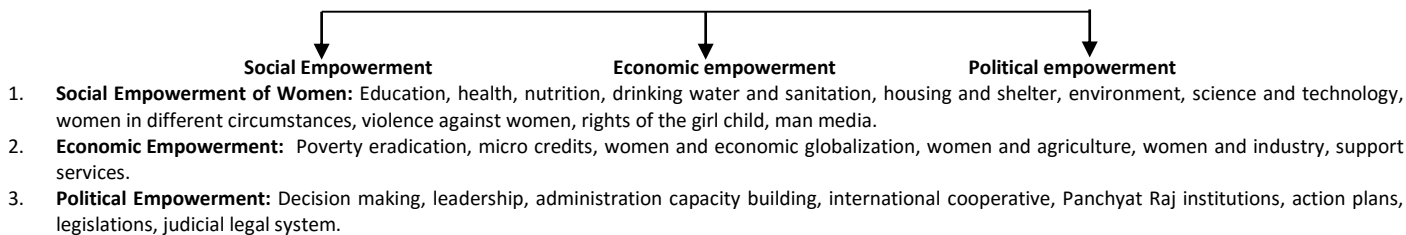
Once they examine the facts of their salutation in the case especially of Indian women, a whole set of both internal and external bonds bind her up which almost incardinates them. Empowered women become free of their social, cultural and most importantly, psychological barriers.

WOMEN EMPOWERMENT

Women empowerment means "the idea that giving women powers over their economic, social and reproductive choices which will raise their status promote development and reduce population growth". Women empowerment can be viewed as a continuum of several interrelated and mutually rein faring components.

- Awareness building about women's situation discrimination and opportunities as set towards gender equality collective awareness building provides a sense of group identifies and power of working as a group.
- Capacity building and skills development, especially the ability to men make decisions, organize manage and carry out activities to deal with people and institutions in the world around them.
- Participation and greater control and decision making towel in the home, community and society.
- Action to bring about greater equality between men and women.

WOMEN EMPOWERMENT

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                    WOMEN EMPOWERMENT
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         ▼                 ▼                 ▼
  Social Empowerment  Economic empowerment  Political empowerment
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1. **Social Empowerment of Women:** Education, health, nutrition, drinking water and sanitation, housing and shelter, environment, science and technology, women in different circumstances, violence against women, rights of the girl child, man media.
2. **Economic Empowerment:** Poverty eradication, micro credits, women and economic globalization, women and agriculture, women and industry, support services.
3. **Political Empowerment:** Decision making, leadership, administration capacity building, international cooperative, Panchyat Raj institutions, action plans, legislations, judicial legal system.

CONCEPT OF THE SHG's

Self-help groups (SHG) are a small voluntary association of poor people, preferably from the same socio-economic background. They come together for the purpose of solving their common problems through self-help and mutual help. The SHG promotes small savings among its members (Sharma, 2001). The savings are kept with a bank. This common fund is kept in the name of SHG. Usually, the number of members in one SHG does not exceed twenty. The concept of SHG is based on the following principles.

1. Self help supplemented with mutual help can be a powerful vehicle for the poor in their socio-economic development.
2. Participative financial services management is responsive and efficient.
3. The Poor need not only credit support, but also savings and other services.
4. The Poor can save the bankable and SHGs as clients result in wider outreach, lower transaction cost and much lower risk costs for the banks.
5. Creation of a common fund by contributing small savings on a regular basis.
6. Flexible democratic system of working.
7. Loaning is done mainly on trust with a bare documentation and without any security.
8. Accounts loaned are small, frequent and for short duration.
9. Defaults are rare mainly due to group pressure and
10. Periodic meeting ensures non-traditional savings.

Micro finance programmes are currently being promoted as a key strategy for simultaneously addressing both poverty alleviation and women's empowerment. Before 1990s credit schemes for women were almost negligible. There were certain misconceptions about the poor people that they need loan at subsidized rates of interest on soft terms, they lack skills, capacity to save, credit worthiness and therefore are not bankable. Nevertheless, the experience of several and SHGs reveal that rural poor are actually efficient managers of credit and finance. Availability of timely and adequate credit is essential for them in their enterprises rather than subsidies. Earlier government efforts through various poverty alleviation schemes for self-employment by providing credit and subsidy received little success since most of them were target based involving various government agencies and banks.

OBJECTIVE OF THE STUDY

The main objective of this paper is to explore good suggestions for Women empowerment through self help groups.

METHODOLOGY

The study is based on the secondary data sources. The necessary information about the women Empowerment Through self help groups and its various components are collected from various books, journals, internet source of related topics.

GOOD SUGGESTIONS

From the entire text in general and above discussed limitation in particular and research field notes the following suggestions are made for women empowerment. Based on the findings with the intervention of social work practice the following are made:

- Conducting the training program to self help group member
- Government may consider giving preference to uncovered areas for proceeding to the self help group.
- Self help group can be able to know the innovative ideas for income generating activities and all the members can develop their skill.
- Suitable advice may also be given the member of self help group for promoting repayment of loans.
- Motivational campaign may be conducted for including saving habit in the minds of the member.
- The bank should visit self help groups and glade them based on their quality.
- Necessary institutions may be given to the authorities and bank officials to ovoid the delay in sanctioning the loan and to respond the quarries of self help group (SHG) members.
- Suitable administrative training to all the members of SHGs should be given or at least the animators and representatives of the groups may be given administrative training.
- Loan amount should be increased to the extent that they can take up an income generating activities.
- Adult education system may also be adapted to the members of SHGs to up glade their educational status.
- Youth especially unemployed can be benefited aid they can also involve themselves in the process of poverty eradication.
- Develop village knowledge centers; the project program may consider providing computer and internet facility to every voluntary organization or village and develop the VO offices into village knowledge centre. The centre could be used for different uses such as spreading of functional literacy. Computerization of groups and VO accounts, accessing market information and a host of other information.
- Promote appropriate practices in place of best practices. Apart from basic issues like basic human rights, equality, honest etc. There are no universally applicable but practices. As any set of last practices are context specific, implementing of them in all contexts may not give optimum results in fact they may become center productive. Therefore, flexibility should be given to get evolve locally suitable good practices in every context.

- Review the weekly meetings, in view of above discussion, it is strongly recommended to review the weekly meeting scheme at least a quick study may be conducted to assertion how the scheme is working before extending is to new groups and areas.
- Simply groups accounting process should be followed in SHG groups. As a mentioned above that the groups are maintaining a number of books / sections under standard accounting practice. But members found no use of all these detailed accounting prices. Even banks, which provide bulk of the trends to groups, are not interacted to look at there books. Therefore, it is strongly recommended to simplify the group level book keeping, members should be made aware of each book they are maintaining each member should know clearly about her cumulative saving, interest earn on her saving her loan obligation etc. In other words, members' individual passbook should get priority and all details should be filled regularly.
- Government has taken special empowerment program for SHG members with two support and involvement of good non government organization.
- There has been some degree of recognition due to economic participation but lack of education awareness and lack of economic opportunity create constraints in gaining equal status for women and man. Given the poverty situation in most of the backward areas the initial and individual efforts have not been built up the human capabilities two basic element of human capability are education and health. Proponents of social empowerment emphasize on starting with the point o creating awareness and giving access to inform choice on women related issues. This could be provided through specialized training and through focused group discussion on the need to send the children to school, providing of information on health, reproductive health of adolescent girls and imparity legal and economic literary information.
- The members of the SHG should be more active, enthusiastic and dynamic to mobilize their savings by groups actions in this process NGOs should act as a facilitator and motivator.
- The officer bearers who are managing the group should be given nominal financial benefits which will enable them to be more involved in the activities of the group.
- The bank should advance adequate credit to the SHG according to their needs.
- Uniformity should be maintained in information and extension of financial assistance of them by banks in all blocks.
- Marketing facilities for the scale of products of SHG may b created
- The SHG are popularizing and government shows an enthusiasm to introduce the SHG concept in every program.
- In this way the Government, NGOs' co-operated to SHGs and Government should conduct more training programs to SHG members in rural and urban areas.

CONCLUSION

Self help groups organized under the government and non government organizations in India has been functioning successfully for nearly a decade. There should be of interest to policy makers concerned with poverty alleviation since they emerged as the only credit organizations serving the needs of the poor woman in rural area. Their unique methods of co-operation, including democratic functioning have contributed the success of self help groups in India. In the dark environment of credit in discipline, the self help groups have emerged as touch bareer of credit discipline, thrift and self retance. This pligram may be slow and halting but they offer the only hope that is available to be percent of the poor in obtaining access to credit. In performing this function, they have also emerged as training grounds in economic democracy for women.

The objectives goals of SHGs are to brings economic and social empowerment among women, ensure financial sustainability, and provide skill development so that it would sustain with an economic activity. This present study attempted is analyze whether the SHGs brought any change in the lives of women great debates are on as to whether, forming groups, making women as members. Providing credit and importing some business skill would change the social equations in the society. The proponents argue that providing credit targeting women can prove to be a suitable mechanism is enhancing of poor women's socio economic conditions and thereby alerting the relations between gender and class. On the other hand, critics argue that provision of credit may lead to marginal increase in income and assets which may enhance the well being and economic security but the increase may be too little to affect pervasively entrenched political and economic relations. Therefore, in order to that the Researcher has studied and made Field work about the concerned facts. based on that, Researcher has given good suggestions for women empowerment through self help groups.

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MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs) AND INTELLECTUAL PROPERTY RIGHTS (IPRS)

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ABSTRACT

This paper seeks to highlight the need for Micro, Small and Medium Enterprises(MSMEs)to be aware of the Intellectual Property Rights(IPRs). In the changing global scenario, the issues of IPR have gained special importance for the Micro, Small & Medium Enterprise (MSME) sector. IPR are of immense importance to entrepreneurs. Patents in new and latest technologies help in survival, trademarks in building consumer confidence and designs in creating buyer appeal. However, Indian MSME sector is lagging behind in recognizing the importance of IPR and adopting IPR as a business strategy and needs more information, orientation and facilities for protecting their intellectual powers. Under product patent regime, Indian firms will have to find new sources of growth in the future and productive Research & Development. No doubt, it is necessary that the MSME in India should show a positive approach towards creation, protection and management of IPR, so as to enable them to compete in the global market and achieve growth in business, higher exports, import containment and making Indian Industry more competitive in the present and future changing global scenario.

KEYWORDS
enterprises, facilitation center, implications, intellectual property rights(iprs) programme, legislations, tools.

1. INTRODUCTION
Micro & Small Enterprises (MSEs) Sector is a vibrant sector registering a higher growth rate than the rest of the industrial sector. It forms the power and spirit of economic growth in the 21st Century. It has also been estimated that the Sector consisting of 36 million units, as of today, provides employment to over 80 million persons. The Sector through more than 6,000 products contributes about 8% to GDP besides 45% to the total manufacturing output and 40% to the exports from the country. It has the potential to spread industrial growth across the country and can be a major partner in the process of inclusive growth.

The Micro, Small and Medium Enterprises Development Act, 2006 defines the small and medium sector as micro, small and medium enterprises with effect from October 2, 2006.

MANUFACTURING ENTERPRISES
- Micro Enterprises – Investment up to Rs. 25 Lakh.
- Small Enterprises - Investment above Rs. 25 Lakh & up to Rs. 5 Crore.
- Medium Enterprises – Investment above Rs. 5 Crore & up to 10 Crore.

SERVICE ENTERPRISES
- Micro Enterprises- Investment up to Rs.10 Lakh.
- Small Enterprises- Investment above Rs. 10 Lakh & up to Rs. 2 Crore.
- Medium Enterprises- Investment above Rs. 2 Crore & up to 5 Crore.

The Ministry of Micro, Small and Medium Enterprises, a branch of the Government of India, is the apex body for the formulation and administration of rules, regulations and laws relating to micro, small and medium enterprises in India. ni-msme (National Institute for Micro, Small and Medium Enterprises) an autonomous arm of the Ministry, provides pro-business environment to foster progress of MSMEs towards success and prosperity. Since its inception in 1960 by the Government of India, it has been the premier institution for the promotion, development and modernization of the SME sector. ni-msme, has been conducting number of national and international training programmes in the field of IPRs for different interest groups over the years. The schemes/programmes undertaken by the Ministry and its organizations seek to facilitate/provide:

(i)   adequate flow of credit from financial institutions/banks;
(ii)   support for technology upgradation and modernization;
(iii)   integrated infrastructural facilities;
(iv)   modern testing facilities and quality certification;
(v)   access to modern management practices;
(vi)   entrepreneurship development and skill up gradation through appropriate training facilities;
(vii)   support for product development, design intervention and packaging;
(viii)   welfare of artisans and workers;
(ix)   assistance for better access to domestic and export markets; and
(x)   cluster-wise measures to promote capacity-building and empowerment of the units and their collectives.

2. OBJECTIVES
1.   To understand the meaning and importance of IPRs.
2.   To create awareness of the facilities provided by the Ministry of Micro, Small and Medium Enterprises.

3. METHODOLOGY
This paper consists of Section I Introduction; Section II Objectives; III Methodology; Section IV Meaning of IPR.; Section V Types / Tools of IPRs; Section VI Implications of IPRs for MSMEs; Section VII The Intellectual Property Facilitation Centre (IPFC) for MSMEs; VIII National IPR Programme for SMEs in India; IX Need of the Hour; Section X Conclusion. The study is based on secondary sources of data such as books and internet.

4. MEANING OF INTELLECTUAL PROPERTY RIGHT (IPR)
Intellectual Property (IP) refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. IPRs are legal rights, which result from intellectual activity in industrial, scientific, literary & artistic fields. These rights safeguard creators and other producers of intellectual goods & services by granting them certain time-limited rights to control their use. IPRs protection plays a key role in gaining competitive advantageous position in terms of technological gain for achieving higher economic growth and becoming competitive under liberalization and globalisation.

The IPR Legislations in India consist of Patents Act 1970 as amended in 2005, Industrial Designs Act 2000, Trade Marks Act 1999, Geographical Indication Act1999, Copy Right Act 1999, Protection of Plant Varieties & Farmers' Rights Act 2001, The Biological Diversity Act,2002 (All IPR Laws are fully TRIPS compliant). Several initiatives have been taken by the Government of India in the field of IPR, including amendments in patent laws and modernisation of the IPR / Patent Offices, as

a strategic response to the globalisation and liberalisation of the Indian economy. India ratified the agreement on Trade Related Aspects of Intellectual Proper rights [TRIPS] which came into force from 1st January 1995 which provides for minimum standards for protection and enforcement on intellectual property rights in member countries which are required to promote effective and adequate protection of IPR with a view to reducing distortions and impediments to international trade.

Use of IPR by MSMEs for its commercial competitive advantages involves Recognition of one's rights over innovated tools / machinery developed or other products of intellect and Registration of patent, industrial designs, trademarks and other available rights over the same.

5. TYPES/TOOLS OF IPRs

a.   Patents- an exclusive right granted for an invention, which is a product or a process that provides a new way of doing something, or offers a new technical solution to a problem. It provides protection for the invention to the owner of the patent. The protection is granted for a limited period, i.e 20 years

b.   Trademarks- a distinctive sign that identifies certain goods or services as those produced or provided by a specific person or enterprise.

c.   Copyrights and related rights- a legal term describing rights given to creators for their literary and artistic works. The kinds of works covered by copyright include: literary works such as novels, poems, plays, reference works, newspapers and computer programs; databases; films, musical compositions, and choreography; artistic works such as paintings, drawings, photographs and sculpture; architecture; and advertisements, maps and technical drawings.

d.   Geographical Indications- are signs used on goods that have a specific geographical origin and possess qualities or a reputation that are due to that place of origin.

e.   Industrial Designs- creative activity, which result in the ornamental or formal appearance of a product, and design right refers to a novel or original design that is accorded to the proprietor of a validly registered design.

f.   Trade Secrets- confidential business information that provides an enterprise a competitive edge. These are manufacturing or industrial and commercial secrets and include sales methods, distribution methods, consumer profiles, advertising strategies, lists of suppliers and clients, and manufacturing processes.

g.   Layout Design for Integrated Circuits- right to use the layout-design, commercially exploit it and obtain relief in respect of any infringement.

h.   Protection of New Plant Variety- to recognize the role of farmers as cultivators and conservers and the contribution of traditional, rural and tribal communities to the country's agro biodiversity by rewarding them for their contribution and to stimulate investment for R & D for the development new plant varieties to facilitate the growth of the seed industry.

6. IMPLICATIONS OF IPRS FOR SMEs

Awareness of IPR benefits the MSMEs mainly in two ways. Firstly, how they can protect their creations i.e. to protect their own intellectual property rights and secondly, how they can avoid violating *intellectual property rights* of others. Hence the need to convert intellectual abilities into intellectual properties carrying appropriate rights. There are two kinds of implications of IPRs for SMEs. Firstly, the IPR of a small enterprise may be usurped by somebody and thus it stands to lose if it is not enabled to protect its IPRs. Secondly, knowingly or unknowingly, a small enterprise may infringe on others IPRs if it does not possess knowledge of it.

Furthermore, increased awareness encourages MSMEs to make better use of IPR system, helps them to face global competition and provides the desired "winning edge" over the Competitors. IPRs will aid Indian MSMEs, with limited resources and manpower to sustain in this competitive world through continuous growth and development oriented innovations.

The protection of IPR improves the competitiveness of MSMEs as follows:

a.   Preventing competitors from copying or closely imitating a company's products or services;

b.   Avoiding wasteful investment in research and development (R&D) and marketing;

c.   Creating a corporate identity through a trademark and branding strategy;

d.   Negotiating licensing, franchising or other IP-based contractual agreements;

e.   Increasing the marketing value of the company;

f.   Acquiring venture capital and enhancing access to finance; and

g.   Obtaining access to new markets.

Not only an intellectual property is to be created or acquired, but it also needs to be managed to generate financial returns to its full potential.

7. THE INTELLECTUAL PROPERTY FACILITATION CENTRE (IPFC) FOR MSMEs

Globalisation and Liberalisation has offered business opportunities in the form of new target markets, possibilities to exploit technological advantage, etc., as well as challenges in this process have flowed mainly from their scale of operation, technological obsolescence, inability to access institutional credit and intense competition in marketing. In India. we need to enhance awareness about the Intellectual Property Rights (IPR) to enable MSME to make informed decisions. Hence, IPFC has been established at ni-msme in the year 2009-10, sponsored by Development Commissioner (MSME), Ministry of MSME, Government of India which aims at helping MSMEs in promoting innovation, niche products/ services. It also registers MSMEs for filing of IP Tools in a cost effective manner backed by the incentive schemes of Government of India.

Its objectives are to encourage and empower MSMEs to create value addition and building assets through effective exploitation and commercialization of IP such as Patents, Designs, Trademarks, Copyrights, and protect the trade secrets and confidential information; to serve as a repository of IP information for MSMEs in the country; and to establish networks in the above areas for use and sourcing by MSMEs and entrepreneurs.

It addresses the following service requirements: IPR awareness campaigning and training to sensitize MSMEs on IP related issues; IPR information and advisory services to foster on IP culture which would enhance the intellectual capital for the growth of MSMEs; Drafting and preparation of specifications for IPR applications; Filing of applications for Patents, Trademarks, Copyrights and GIs with follow up services; Partners with MSMEs of India and abroad to introduce IP management within the enterprise.

Its services comprise of: rendering IPR awareness, training, protection; identifying areas of IP services and providers for MSMEs; facilitating e-mail alerts for members about the latest developments in the field of IPR at national and global level; and bring out a quarterly IPFC 'e- newsletter'.

Its membership is open to individuals, consultants and consulting firms, lawyers, entrepreneurs, industry and trade bodies/associations.

8. NATIONAL IPR PROGRAMME FOR SMEs IN INDIA

The Government has put in place several measures to help small enterprises to become globally competitive like schemes /programmes for technology up gradation, development of clusters, making collateral free bank credit available, creating awareness among these industries regarding export-related issues, etc. The Ministry of Micro, Small & Medium Enterprises (MSME) in India also conducts workshops on various aspects of WTO, Anti-dumping seminars, IPR, etc. to sensitize the MSEs entrepreneurs *Some of the Challenges faced by Indian MSMEs are: Access to Technology, I.P.R. related issues, Design as market driver, Wasteful usage of resources / manpower, Energy in-efficiency and associated high cost, Low ICT usage, Low Market penetration, Quality Assurance / certification.*

Hence in the 2005-06 Budget, an announcement has been made regarding setting up of the "National Manufacturing Competitiveness Council (NMCC)" a continuing forum for policy dialogue to energise and sustain the growth of manufacturing sector in India, visualized a National Manufacturing Competitiveness Programme (NMCP) to enhance the competitiveness of the SMEs sector.

Under the NMCP programme, 10 components have been conceptualized, namely:

•   Lean Manufacturing Competitiveness scheme

•   Enabling manufacturing sector to be competitive through Quality Management Standards / Quality Technology Tools (QMS/QTT).

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- Promotion of ICT (Information & Communication Technology) in MSME Sector
- Technology & Quality Up Gradation Support to MSMEs (TEQUP)
- Marketing Assistance & Technology Up gradation scheme
- Marketing Support / Assistance to MSMEs (Bar Code)
- Design Clinic Scheme for Design Expertise to MSME Sector
- Setting of Mini Tool Rooms
- National Campaigns for building awareness on IPR
- Support for Entrepreneurial and Managerial Development of SMEs through Incubators.

As one of the components of the NMCP is "Building Awareness on Intellectual Property Rights (IPR)" for the MSME, they have identified and recommended nine schemes, including the programme on IPR to sustain the growth of SME sector in India. The objective of this programme is to enhance awareness about IPR and thus enable MSME to make informed decisions about protecting their ideas and business strategies; effective utilisation of IPR tools by MSME for technology up-gradation & enhancing competitiveness; and providing access to technical facilities and expertise for value addition to their business.

The main activity and funding limits proposed under this scheme cover the following broad areas of interventions:

(a) Awareness /Sensitisation Programmes on IPR (1.00 lakh) – Regarding different aspects of IPRs.

(b) Pilot Studies for Selected Clusters/Groups of Industries (2.50 lakh) - strengthening the IP needs of the MSEs Clusters taken up under the Micro & Small Enterprises Cluster Development Programme (MSE-CDP) of the Ministry of MSME.

(c) Interactive Seminars/Workshops (2.00 lakh) - to protect their intellectual property rights and are product specific and cluster based.

(d) Setting up of Intellectual Property Advisory Cell - Micro Small & Medium Enterprises do not have adequate resources to develop their own IP assets whereas there exists a huge potential in developing and safeguarding their ideas/inventions.

(e) Specialized Training - on IPR related issues for the entrepreneurs, officers, members of industry associations and other stakeholders with focus on cluster development.

(i) Short term (ST) (6.00 lakh)

(ii) Long term (LT) (45.00 lakh)

(f) Assistance for Grant on Patent/GI Registration - proposed to provide lump-sum financial assistance on grant both domestic & foreign patents.

(i) Domestic Patent (0.25 lakh)

(ii) Foreign Patent (2.00 lakh)

(iii) GI Registration (1.00 lakh)

(g) Setting up of 'IP Facilitation Centre for MSME' (65.00 lakh)

(h) Interaction with International Agencies - Initiatives of awareness and actions of harmonization in various fields could be initiated by extending co-operation in the area of Science & Technology (S&T) between various countries.

(i) Domestic Intervention (5.00 lakh)

(ii) International Exchange Programme (7.50 lakh)

9. NEED OF THE HOUR

The present era is that of survival of the faster and stronger which means 'competitive advantage.' To gain competitive advantage by the MSMEs is to make use of IPR. According to some critics, IP creates intellectual monopolies that are harming health, preventing progress, and benefiting concentrated interests to the detriment of the masses. They argue that IPRs harm public interest by ever expanding monopolies in the form of copyright extensions, software patents and business method patents. However, majority of the countries in the world today have strong IPR regime to power their industries. And hence some of the reasons why IPR must be one of the most important item on India's economic development agenda are - (i) To make the Indian economy knowledge-based, to the maximum extent possible, and build up India's international competitiveness more on the basis of knowledge rather than on the basis of cheap labour and raw materials, (ii) An effective and enabling administrative and legal regime for IPR bestows confidence to the IP-owner and creator allowing them to manage and eventually create the crucial link between research (innovation) and its economic applications. (iii) An effective IPR protection system is a basic requirement agreed upon by all 149 WTO members.

It is therefore highly inevitable that the representatives of MSME should be trained to understand the product specific/sector specific IPR related needs for change in view of changing trade environment, limited asses to technology, global competition, high innovation risks, short product cycle needs for rapid changes and technologies and needs for highly skilled human resources.

10. CONCLUSION

In the changing global scenario, the issues of IPR have gained special importance for the Micro, Small & Medium Enterprise (MSME) sector. IPR are of immense importance to entrepreneurs. Patents in new and latest technologies help in survival, trademarks in building consumer confidence and designs in creating buyer appeal. However, Indian MSME sector is lagging behind in recognizing the importance of IPR and adopting IPR as a business strategy and needs more information, orientation and facilities for protecting their intellectual powers. Under product patent regime, Indian firms will have to find new sources of growth in the future and productive Research & Development. No doubt, it is necessary that the MSME in India should show a positive approach towards creation, protection and management of IPR, so as to enable them to compete in the global market and achieve growth in business, higher exports, import containment and making Indian Industry more competitive in the present and future changing global scenario.

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DETERMINANTS OF EXPORT PERFORMANCE MARKET IN ETHIOPIA: IN THE CASE OF AGRICULTURAL PRODUCTS AND MANUFACTURED GOODS

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ABSTRACT

The major objective of this study is to identify and investigate the effect of these factors on the level of exporter's performance in Ethiopia. The questionnaire was distributed to 325 exporters of agricultural and manufactured goods and 284 have been collected and analyzed using correlation and regression analysis. All the predictor variables have a positive correlation with dependent variables at significant value of $P<0.01$. Moreover, all determinant factors are significantly explaining Export Performance at $P<0.01$ for all determinant variables, except, Strategic Motivation $p<0.05$. In this study, samples were taken from exporters operating in Addis Ababa and excluded exporters operating in other regional states due to time and other resource constraint. Provides an insight on the effect of various factors to assist exporters to enhance their level of performance & the Ethiopian export promotion agency to promote the export sector in Ethiopia to make them competitive at international level. The study identified a number of the major determinants of export performance that affect the level of performance of exporters in Ethiopia.

KEYWORDS

agricultural products, determinants, export performance, manufactured goods.

INTRODUCTION

Recent decades have been marked by the rapid internationalization of business and the emergence of global competition. Markets in many industries, whether for consumer products, agricultural products, industrial goods and services or markets for resources such as capital, materials and technology, are becoming increasingly integrated worldwide (Douglas and Craig, 1992). Now days, it is an inevitable to firms to participate in global markets (Craig and Douglas, 1996a). Naturally, an increasing number of firms have seen in these sweeping developments the opportunity to expand their operations internationally in order to achieve their growth objectives, raise their sales and profits, diversify their business risks, and even retaliate to the entry of foreign competitors into their domestic markets. Exporting has been the most popular approach adopted by firms in their endeavors to enter and penetrate foreign markets, as it requires less commitment of resources, has minimal effect on the ordinary operations of the firm, and involves low investment and financial risks (Leonidou et al., 2002).

LITERATURE REVIEW: DETERMINANTS INFLUENCING EXPORT PERFORMANCE

A significant amount of research exists regarding export performance within the manufacturing sector (Aaby and Slater, 1989; Cooper and Kleinsehmidt, 1985; Dominguez and Sequeria, 1993; Koh, 1991). These variables encompass seven general categories: firm characteristics, management attitudes, market characteristics, international orientation of managers, performance, competitive/strategic advantage, or strategic motivation. Each of these categories has been shown to influence significantly the export performance of a substantial number of companies in other countries. However, it is unclear as to whether these variables will contribute to export performance in the Ethiopian business context or Not.

Firm characteristics: Previous research upholds that firm size has an impact on export performance. Larger firms have a greater ability to expand resources and absorb risks than smaller ones (Erramilli and Rao, 1993). Internationalization requires appropriate resources; therefore, firm size is an important predictor of export performance (Calof, 1994). Typically, firm size is operationalized as number of employees. Larger and older firms tend to have specialized managerial resources as well as make more effective use of economies of scale (Sarniee and Walters, 1991). Both firm characteristics (firm size and age) could be directly applicable to the service industry. An examination of the accounting and management consulting industries supports this contention: firms that have been in business long enough to become well established domestically and who have many employees also tend to operate internationally. Thus, the firm characteristics investigated in this study is the size (number of employees) and age of the firm.

International orientation of the manager: The international orientation of the manager positively relates to exporting in the manufacturing literature (Bilkey, 1978; Cavusgil, 1980, 1984a; Cavusgil *et al.*, 1979; Cavusgil and Naor, 1987; Cavusgil and Nevin, 1981; Wiedersheim-Paul *et al.*, 1978). Managers with greater international experience are more open to export opportunities. In essence, those with more exposure to the international business environment are less hesitant to operate within it. Axinn (1988) found a significant relationship between the percentage of managers with overseas work experience in a firm and export performance: that is, in the service industry managerial motivation to internationalize is intensified due to the lower reliance on capital investments. Consistent with previous research (see Burton and Sehlegelmileh, 1987; Dichtl *et al.*, 1990; Wiedersheim-Paul *et al.*, 1978), we will investigate the impact of a manager's foreign orientation on the export performance of the firm. Specifically, the number of foreign trips taken during the previous year, and international work experience (measured in terms of months) is investigated.

Market characteristics: Market characteristics, such as cultural similarity, governmental regulations, local business conventions, etc., influence export performance (Erramilli and Rao, 1993; Sullivan and Bauerschmidt, 1990; Styles and Ambler, 1994). Research on cultural similarity and internationalization indicates that firms initially tend to select countries culturally similar to their own in order to increase their export performance (Styles and Ambler, 1994). Erramilli and Rao (1993) report that foreign market entrants often perceive a significant amount of uncertainty when entering countries not deemed similar to the home country. Quite simply, firms tend to enter nations with like consumer behaviors, market conventions, industry structures, institutional settings and local business conventions, which create a feeling of market similarity (Sullivan and Bauerschmidt, 1990).

Management attitudes towards exporting: A large body of literature exists documenting the positive relationship between international trade and management attitudes towards exporting (Cavusgil and Nevin, 1981; Czinkota and Johnston, 1983; Dichtl *et al.*, 1990; Johnston and Czinkota, 1985). Axinn (1988) cautions researchers not to undervalue the link between managers' attitudes towards internationalization and firm export performance. In fact, she finds managers' perceptions of the relative advantage of exporting to be the most significant indicator of firm export performance, which supports the findings of Kedia and Chhokar (1986). Finally, Koh (1991) proposes that a firm's management will modify its internationalization strategy if a high level of commitment to exporting exists within the firm. Management attitudes, as a decision measure, appear to be directly relevant to the service industry. Thus, we investigate whether managers deem internationalization as desirable, firm capability to move international and top management's attitude and support of international operations.

Performance: Performance measures such as profitability and market growth opportunities influence export performance measurement within the manufacturing sector (Cavusgil and Nevin, 1981; Cooper and Kleinsehmidt, 1985; Sehlegelmilch, 1986; Wiedersheim-Paul, *et al.*, 1978). Cavusgil and Nevin (1981), as well as Sehlegelmilch (1986), indicate that managerial aspirations and expectations about the contribution of exporting to the achievement of basic goals have a direct bearing on the decision to engage in international trade. Cooper and Kleinsehmidt (1985) indicate that management's goals and aspirations including expectations for exports, corporate growth goals, and corporate goals regarding security of investment impact a firm's performance. The stronger the firm's motivation to grow,

the greater the search for new opportunities in order to find means of fulfilling its growth ambitions (Wiedersheim-Paul *et al.*, 1978). Performance measures of profits, growth, security of investment and markets, as well as market development are examined.

Competitive or strategic advantage: Researchers indicate that the possession of competitive advantages enhances overall export performance (Bharadwaj *et al.*, 1993; Cavusgil and Naor, 1987; Cooper and Kleinsehmidt, 1985). Bharadwaj *et al.* (1983) show that competitive advantages can lead to superior marketplace performance (e.g., market share, customer satisfaction) and financial performance (e.g., return on investment, shareholder wealth creation). Cavusgil and Naor (1987) found that unique firm advantages contribute to a firm's internationalization. Other authors also highlight the importance of competitive advantage in operating internationally (e.g., Cavusgil *et al.*, 1979; Cooper and Kleinsehmidt, 1985; Edvardsson *et al.*, 1993). Wiedersheim-Paul *et al.* (1978) attribute a firm's entry into the world market to competitive advantage: they contend that unique competence leads a firm to seek the exploitation of world markets, via trade or investment. According to them, when a firm is aware of the unique assets it *p*ossesses, it is more likely to search for wider exploitation of its advantages, including the testing of foreign markets. Other research on competitive advantage and its relationship with exporting supports their position (Bilkey, 1978). Three areas of strategic advantage that appear directly relevant to the service industry are: technological competence, company image and financial assets.

Strategic Motivation: Cooper and Kleinsehmidt (1985) propose that management looks to foreign markets because of increasing competition at home, maturing domestic markets, or limited domestic market opportunities. Gaedeke (1973) found many similarities in the motives of US advertising, consulting, and law firms who internationalized. Gaedeke reports that the primary incentive for these service organizations to internationalize is a favorable opportunity to follow domestic clients abroad. In fact, client following behavior is often the first stage in the internationalization process (Li and Guisinger, 1992; Nigh *et al.*, 1986; Terpstra and Yu, 1988; Weinstein, 1977). One of the benefits of following clients overseas is the existence of pre-established relationships, which serve to reduce the uncertainty of entering a foreign market (Li, 1994). And, of course, such firms recognize that following clients is a sound defensive strategy, i.e., they may lose major accounts who would find alternative service providers. Research exists supporting the strategy of market diversification as a goal of internationalization (Cooper and Kleinsehmidt, 1985). US service firms seeking to diversify geographically are attempting to secure a niche in a much larger market than is available in the USA. For the purposes of this study, three strategic motivations including internationalization as a result of a deliberate strategic plan, to capitalize on large and growing markets, and a desire to be known as a multinational service provider were considered.

MEASURES OF EXPORT PERFORMANCE

Export intensity, number of countries in the firm's base, management's perceptions of export profitability, and management's satisfaction with export performance were used as measures of export performance.

1. *Export intensity (FSTS):* Export intensity (measured as firm's foreign sales as a percentage of their total sales) reflects the importance of, and/or success of, a firm's international transactions in terms of its overall operations (Cavusgil, 1984b; Daniels and Bracker, 1989). While it is arguably the most often used dependent variable in the export performance literature, it is not without its critics (see Fenwick and Amine, 1979). Some researchers argue that FSTS may not measure performance, but rather a firm's level of internationalization, its relative dependence on foreign markets, or even its failure in the domestic marketplace. The prevalent use of FSTS, in spite of its shortcomings, may derive from its ease of collection.

2. *Number of Markets:* The number of markets a firm has in its export base has been another dominant measure of a firm's export performance (see Jung, 1984; Samice and Walters, 1990). The number of countries served by a firm indicates its success in reaching the international community. An implicit link exists between the number of foreign markets entered and international success, given that if a firm is successful in its international expansion, it continues to expand, while if unsuccessful, it will often take a defensive position and retreat to the sanctity of the domestic marketplace.

3. *Management's perception of export profitability:* Profitability is synonymous with performance from a US perspective and therefore used by researchers as a measure of success. Studies using this variable as a measure of export performance, most notably Koh and Robieheaux (1988) and Koh (1991), base their selection of it on the research by Bilkey (1982). Koh and Robieheaux theorize that the use of this dependent variable encourages more firms to respond given that respondents need not provide confidential export profitability figures. Similarly, Atuahene-Gima (1995) utilized management's perception of profit growth performance when examining new products introductions into export markets.

4. *Management's satisfaction with export performance:* The argument for using management's satisfaction with export performance proceeds as follows: a firm's management alone knows what its goals and expectations are regarding export performance and, therefore, are better able to judge whether or not the firm is achieving its goals than would outside parties. Although the previously proposed measures of export performance provide insight into a firm's exporting operations, the utility of depends upon the goal(s) management has established for exporting. Selecting management's satisfaction with export performance is consistent with the trend of "managing by objectives." Firms that meet or exceed their objectives, in terms of their export performance, are more satisfied than are firms who have not met their objectives. Seifert and Ford (1989) report that a major gap in the literature exists because of the lack of information pertaining to a firm's export satisfaction.

IMPORTANCE OF THE STUDY

This study will have the following contributions to various stakeholders:

- The exporters will be able to benefit to focus its attention on the most important variables affecting export performance.
- The government has to give the required assistance to exporters in order make them much more competitive in export marketing to generate foreign currency and minimize the gap in balance of payment of the country.

STATEMENT OF THE PROBLEM

Academic research on export marketing has made substantial progress over the past 40 years. This progress is reflected in the development of a substantial body of knowledge concerning the various aspects of exporting, as well as in the application of more rigorous research tools and procedures in investigating export-related phenomena. At the same time, however, the increasingly dynamic, volatile and complex international business environment, combined with significant advancements in marketing thought and the emergence of new marketing paradigms, open up a new research agenda for export marketing researchers. The crucial importance of exporting for the economic prosperity of national economies and individual firms alike has stimulated increased attention among academic researchers, who have attempted to investigate the key issues involved in the development and implementation of successful export marketing strategies in order to offer sufficient support to corporate and public policy makers confronting today's hostile global business conditions (Katsikeas, 2003).

The export industry is dramatically expanding in Ethiopia. However, this rapid expansion is also facing major difficulties in order to get the lead in the market in the horn of Africa despite availability of conducive policy framework and export promotion support given by the Federal government of Ethiopia. The aim of this study is to examine the effect of various factors that affect the level of performance of exporters of Ethiopia.

OBJECTIVES OF THE STUDY

The Main objective of this study is to identify and examine the major determinants of agricultural and manufacturing goods exporters' performance in Ethiopia
The specific objective of the study includes the following:

- To identify major determinants of export performance in Ethiopia.
- To identify which of these determinants have a significant impact on the level of exporters of agricultural products and manufactured goods?

CONCEPTUAL FRAMEWORK AND HYPOTHESIS OF THE STUDY
CONCEPTUAL FRAME WORK
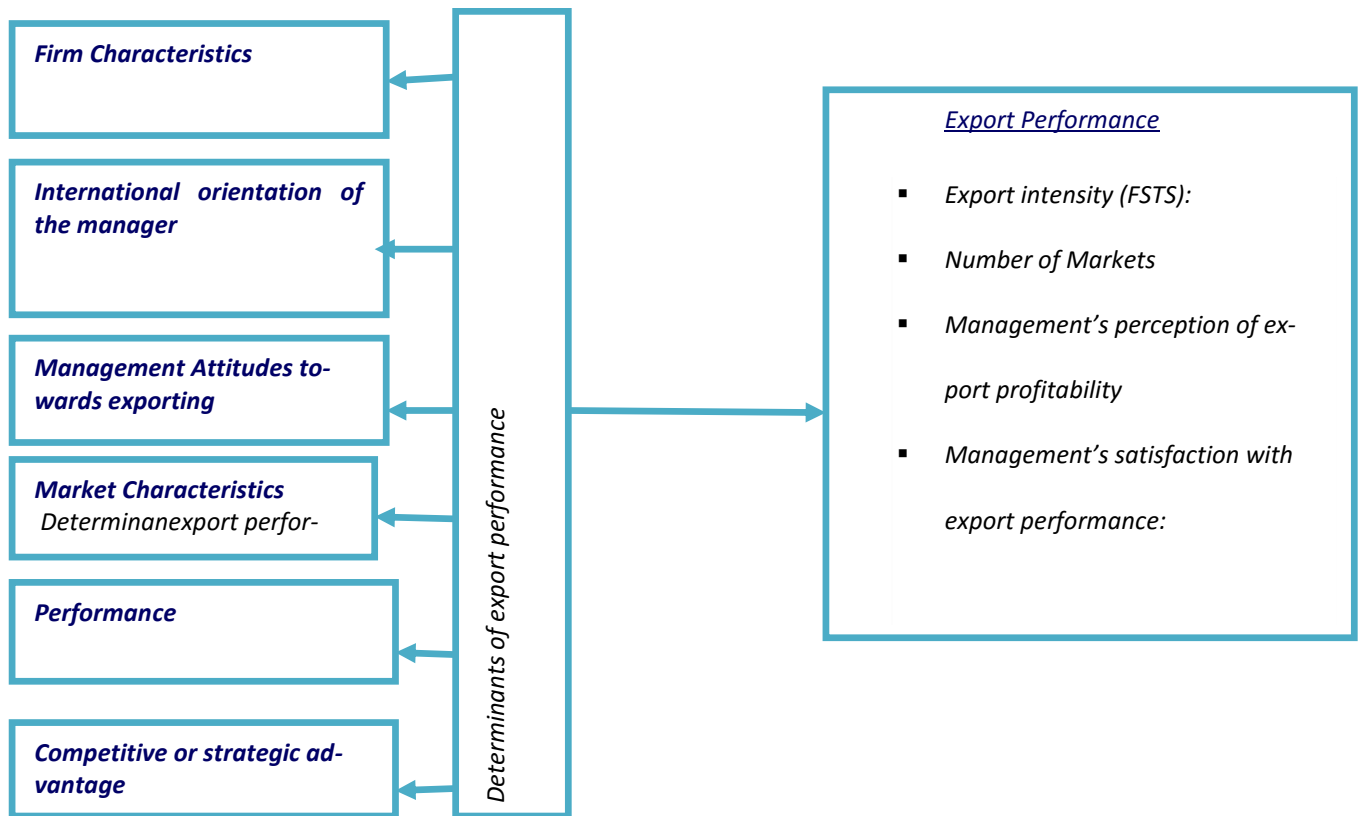
Source: Aaby and Slater, 1989; Cooper and Kleinsehmidt, 1985; Dominguez and Sequeria, 1993; Koh, 1991

HYPOTHESIS OF THE STUDY
- **H1:** Determinant variables are positively and significantly correlated with export performance.
- **H2:** Determinant variables have a significant and positive effect on the export performance.

RESEARCH METHODOLOGY
Researchers applied two types of research approaches, namely qualitative and quantitative approach (Saunders et.al, 2007). Therefore, this study follows quantitative methods approach.

SAMPLING DESIGN

The researcher adopted the six sampling steps of Malhotra et al., (2006); these steps are closely interrelated and relevant to all aspects of the market research. Those are - identified target population, determine the sampling frame, select sampling techniques, determine the sample size, execute the sampling process and validate the sample. The research target population is managers, supervisors and staffs who are working in marketing and outbound logistics related activities.

Zikmund and Babin (2010) sampling technique was used to determine the sample proportion success and not success based on the experience from previous survey research response rate. Saunders, Lewis and Thornhill (2012) state that the likely response rate shall be reasonable 50% or moderately high, while Patrick, B. (2003) referring Babie (1979), the return or success rate 50% is 'adequate'; 60% response rate is 'good' and 70% rate or higher is 'very good'. In this study confidence of successfully collecting or return rate is expected to be 70% and the remaining might be defected or non-response, and sample size is determined at 95% confidence level.

Having this, sample size is determined with the help of the following formula (Saunders et.al, 2007):

$$n = \frac{Z^2 PQ}{e^2} \quad \text{Where,}$$

- n = sample size,
- p = proportion of success
- q = proportion of fail
- z = confidence level
- e = standard error

Based on the above formula,

$$n = \frac{1.96^2(0.70)(0.30)}{0.05^2} = 325 \; Respondents$$

RESEARCH INSTRUMENT

This study employed a self-administered mail survey of 325 top management members of Ethiopian based agricultural and manufacturing firms listed in the chamber of commerce and sectoral association- national directory. The selection of exporters from these two sectors is based on the list available on the directory. The questionnaire was designed by using an iterative process including expert validation and pretesting. Modifications of the questionnaire were made to the research instrument to reflect the feedback of both pretest groups from the agriculture and manufacturing sector. Only 284 usable questionnaires were returned and analyzed using correlational and regression analysis.

VALIDITY AND RELIABILITY

Statistical validity also used to measure the validity of the research though use of correct statistical procedure and instruments (Neuman, 2007). To ensure the statistical validity of the study, the researcher has collected quantitative data using survey questioner and analyzed the data using correct statistical instruments like descriptive statistics, correlation and regression analysis to see the relationship of the variable and reach concrete conclusion.

According to Adams et al., (2007) internal validity is used to assure the research validity. To threat the internal validity of this study the questioner was distributed within the same period of time and collected within a month's time and reasonable sample was taken from the population of the study. Furthermore, pilot taste has been made by distributing 20 questionnaires to sample respondents to collect feedback on the clarity, wording, coherence and content of the questionnaire. The major objective of the pilot taste was to get feedback on the questionnaire way of preparation, and any other. Valuable comments obtained from the pilot test as well as experts in the field were used to restructure as well as refine the quality of the research instrument.

The reliabilities of enhancing and inhibiting factors on performance level were assessed with Cronbach's Alpha (α), Cronbach's Alpha is the most common measure of scale reliability (Field, 2006). According to Neuman (2007), Cronbach's Alpha used to assess uni-dimensionality. Alpha ranges from a maximum of 1.0 for a perfect score to minimum of zero, good measure of the alpha should be 0.70 or higher. In this study the Cronbach's Alpha value of determinants for 23 items.869 is above the minimum threshold.

TABLE 1: RELIABILITY

No	Determinants	Cronbach's Alpha	N of Items
	Firm Characteristics	.702	2
	International orientation of the manager	.761	2
	Management Attitudes	.807	4
	Market Characteristics	.711	4
	Performance Areas	.893	5
	Strategic Advantage	.725	3
	Export Performance	.709	4
	All predictors/ Determinants Variable	.869	23

RESULTS AND DISCUSSION
CORRELATION ANALYSIS
The result of the Pearson correlation is interpreted by the guide line suggested by Field (2005). According to Field, the Pearson correlation coefficients show the relationship between the predictor and outcome variable. The relationship in the range of 0.1 to 0.29 is considered as weak, 0.30 to 0.49 as moderate and above 0.50 shows strong relationship. Finally, the positive and negative sign is telling us the direction of their relationship. In correlation table below all relationships are found above 0. 307.Thus, all the relationships are moderate and strong.

TABLE-2: CORRELATIONS

		Firm Characteristics	International Orientation	Management Attitude	Market Characteristics	Performance Area	Strategic Advantage	Strategic Motivation	Export Performance
Export Performance	Pearson Correlation	.416**	.459**	.480**	.576**	.470**	.428**	.307**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	283	283	283	283	283	283	283	283

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Hypothesis 1: All the predictor variables have a positive correlation with dependent variables at significant value of $P<0.01$.

REGRESSION ANALYSIS
Before running the regression analysis, a multicollinearity test has been done. Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula $1-R^2$ for each variable. If this value is very small (less than.10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of Multicooliniarity. The other value given is the VIF (Variance inflation factor), which is just the inverse of the Tolerance value (1 divided by Tolerance). VIF values above 10 would be a concern here, indicating Multicooliniarity. Refering Annex IV, the lowest tolerance is .003 (i.e. >.1) and the highest VIF is 7.854 (i.e. <10) there no problem of multicollinearity.

MULTICOLLINEARITY ASSUMPTION USING CORRELATION MATRIX
Use the descriptive statistics to check the correlation matrix for multicollinearity; that is, predictors that correlate too highly with each other, $R >.9$. No multicollinearity problem.

TABLE-3: CORRELATION MATRIX TO TEST MULTICOLLINEARITY

		Firm Characteristics	International Orientation	Management Attitude	Market Characteristics	Performance Area	Strategic Advantage	Strategic Motivation
Firm Characteristics	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	283						
International Orientation	Pearson Correlation	.454**	1					
	Sig. (2-tailed)	.000						
	N	283	283					
Management Attitude	Pearson Correlation	.233**	.310**	1				
	Sig. (2-tailed)	.000	.000					
	N	283	283	283				
Market Characteristics	Pearson Correlation	.283**	.394**	.461**	1			
	Sig. (2-tailed)	.000	.000	.000				
	N	283	283	283	283			
Performance Area	Pearson Correlation	.285**	.241**	.379**	.448**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
	N	283	283	283	283	283		
Strategic Advantage	Pearson Correlation	.243**	.312**	.251**	.403**	.252**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		
	N	283	283	283	283	283	283	
Strategic Motivation	Pearson Correlation	.135*	.146*	.149*	.243**	.254**	.216**	1
	Sig. (2-tailed)	.023	.014	.012	.000	.000	.000	
	N	283	283	283	283	283	283	283
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000
	N	283	283	283	283	283	283	283

ASSUMPTION TEST USING COLLINEARITY STATISTICS

Checking the multicollinearity assumption is that by looking SPSS analysis output correlation table of Collinearity statistics value of Tolerance and VIF (Field, 2006). The Tolerance column value below 0.02 and VIF value above 10 pose a multicollinearity problem. Value of VIF is above 0.02 and value of Tolerance is below 10, so no Collinearity problem in the data.

TABLE-4: COLLINEARITY STATISTICS (Coefficients)

Model		Collinearity Statistics	
		Tolerance	VIF
7	(Constant)		
	Firm Characteristics	.754	1.326
	International Orientation	.694	1.441
	Market Characteristics	.604	1.657
	Performance Area	.722	1.384
	Strategic Advantage	.790	1.266
	Management Attitude	.733	1.364
	Strategic Motivation	.900	1.111

AUTO-CORRELATION ASSUMPTION /DURBIN–WATSON TEST

Referring Model Summary Table: The test statistic can vary between 0 and 4, with a value of 2 meaning the residuals are uncorrelated (Field, 2006). Durbin-Watson is 1.834; therefore, the auto-correlation assumption has almost certainly met.

MODEL SUMMARY

Coefficient of Determination (Regression Coefficient, R Square -R^2 of model summary is 0.519 (51.9%)

TABLE-5: MODEL SUMMARY-DETERMINANTS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.416[a]	.173	.170	.71678	.173	58.698	1	281	.000	
2	.515[b]	.265	.260	.67681	.092	35.171	1	280	.000	
3	.654[c]	.427	.421	.59844	.162	79.137	1	279	.000	
4	.681[d]	.464	.456	.58002	.037	18.998	1	278	.000	
5	.696[e]	.485	.476	.56963	.021	11.238	1	277	.001	
6	.713[f]	.508	.498	.55761	.023	13.072	1	276	.000	
7	.721[g]	.519	.507	.55227	.011	6.359	1	275	.012	1.834

Model Generalization

The adjusted R square gives some idea of how well the model generalizes and ideally it would like its value to be the same or close to, the value of R square. The model generalization value will calculate by difference between R square and adjusted R square (Field, 2006).

This is the difference between R square and adjusted R square, refer Model Summary Table,.519 -.507 = 0.012, about 1.2%. This shrinkage means that if the model were derived from the population rather than a sample it would account for approximately 1.2% less variance in the outcome.

TABLE-6: ANALYSIS OF VARIANCE /ANOVA/ TEST

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
7	Regression	90.652	7	12.950	42.459	.000[h]
	Residual	83.876	275	.305		
	Total	174.528	282			

h. Predictors: (Constant), Firm Characteristics, International Orientation, Market Characteristics, Performance Area, Strategic Advantage, Management Attitude, Strategic Motivation

F value 42.459 is significant at P<0.01 level. Therefore, from the result, it can be concluded that with 51.9 % of the variance (R square) in Delivery reliability is significant and the model appropriately measure the dependent variables. According Weiers (2008), if p value is less than the specific level of significance (α), reject the null hypothesis; otherwise, do not reject the null hypothesis

TABLE-7: REGRESSION STANDARDIZED COEFFICIENTS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
7	(Constant)	-.118	.276		-.428	.669
	Firm Characteristics	.092	.030	.147	3.046	.003
	International Orientation	.079	.028	.145	2.889	.004
	Market Characteristics	.242	.054	.241	4.486	.000
	Performance Area	.153	.049	.154	3.127	.002
	Strategic Advantage	.148	.049	.142	3.016	.003
	Management Attitude	.205	.056	.179	3.661	.000
	Strategic Motivation	.109	.043	.111	2.522	.012

Standardized regression coefficient (Beta) is the estimated coefficient indicating the strength of relationship between an independent variable and dependent variable expressed on a standardized scale where higher absolute values indicate stronger relationships (range is from -1 to 1) (William and Barry, 2010).

Here the largest beta coefficient (β=. 242) which is Market Characteristics. This means that this variable makes the strongest unique contribution to explaining the dependent variable, when the variance explained by all other variables in the model is controlled for with a sig. of 0.000 (<0.05).

The next higher beta coefficient (β =.205) is Management Attitude with an important sig. level (p=.000) that makes it to be the second most important factor in determining the performance level of exporters.

The third most significant beta coefficient is Performance Area (β=.148) and sig. level (p=002) in determining the performance level of flower producers and exporters.

Hypothesis 2: All determinant factors are significantly explaining Export Performance AT P<0.01 for all determinant variables, except, Strategic Motivation p<0.05; The regression model is:

Where:

FC = Firm Characteristics

InO= International Orientation

MC= Market Characteristics

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PA=   Performance Area
SA=   Strategic Advantage
MA=   Management Attitude
SM=   Strategic Motivation
ExP=   Export Performance
Bn=   Beta, n=   1, 2, 3…7

Y(ExP) =	$C + (B1)FC + (B2) InO + (B3)MC + (B4)PA + (B5)SA + (B6)MA + (B7)SM$
Y(ExP) =	$-.118 + (.147)FC + (.145) InO + (.241)MC + (.154)PA + (.142)SA + (.179)MA + (.111)SM$

CONCLUSIONS

This study began in an attempt to better understand the key determinants of various export performance measures in an international service context. The seven export measures investigated here provide useful insight for export managers. A clear implication is that managers must understand the components associated with their selected measure of export performance. For an international service organization to evaluate its international operations, managers need to understand the key components they are measuring when using a specific export performance measure. The seven general categories examined provide fruitful insight into the overall composition of each performance measure.

There is no conclusive statement about which export performance measure is "best." Each firm has its own specific objectives. Based upon the findings presented here, we suggest that a firm utilize the measure most appropriate to their objectives. These findings should help exporters of agricultural products and manufactured goods firms to select the measure of export performance most appropriate for their performance criteria.

FINDINGS

In the person correlation analysis all the predictor variables have been positively correlated with dependent variables at significant value of $P<0.01$.

In the regression analysis all determinant factors were have showed a significant effect on export performance at $P<0.01$ for all determinant variables, except, Strategic Motivation $p<0.05$; Market Characteristics, Performance Area and Management Attitude were found as the most important factors in determining the performance level of exporters respectively.

RECOMMENDATIONS

The Ethiopian chamber of commerce and sectoral association need to serve as an excellent platform to share experiences as well as lobby government officials on critical issues affecting their exporters of agricultural products and manufactured goods.

The Ministry of trade and the Ethiopian export promotion agency should also stimulate and assist exporters in finding export destinations as well as in providing various tailored training programs on challenges and opportunities of export marketing. The management of the target firms has to make sectors wise experience sharing among each other and gain experience with other countries export success stories.

LIMITATION & DIRECTION OF FUTURE RESEARCH

While limits to the generalizability of the results of this study exist, the findings do offer insights into the components of seven export performance measures and provide a better understanding regarding agricultural manufactured goods export industries.

Some may contend that the study raises more questions than it answers in regard to export performance measurement in the agricultural and manufacturing sector industries context. Future researchers may wish to clarify this issue by delineating the components of export performance measures more narrowly, or by testing export performance measures within a more homogenous sector setting. Either of these directions would be a significant contribution to the literature in helping to develop better agricultural and manufactured goods industry export performance measures.

Additionally, the current study uses a cross-sectional data collection approach, and as such provides no basis for reviewing the dynamic nature of export performance. To better understand how export performance measurement changes overtime, one may wish to investigate the international behavior of firms over a number of years to see if export performance changes dramatically or incrementally.

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THE INFORMAL ECONOMY IN RURAL COMMUNITY ECONOMIC DEVELOPMENT

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ABSTRACT

The rural economy in most countries is regarded as that which requires intervention in order to foster sustainability and development to improve the quality life of those in need, and there have been many empirical studies on rural benefit distributions in the rural regions. The purpose of this paper is to address and understand of what the rural economy is and see to how the rural communities in the regions are surviving in rural economy, and the type of contribution offered by the rural economy to the community in the rural regions. The methodology of the paper comprises pure secondary data of reviewing literature and theories, based on economic detritions. The conclusion observations for the paper is that rural area distribution income is noted that most of the income and net benefit resulting from the industrialization in the regions is mostly being received by the private sectors. As result the income distribution in rural regions needs more intervention and assistance for the community to gain more income in order to sustain their living standard in a better way through development and equal distribution.

KEYWORDS

rural economy, rural benefit distribution, informal economy, formal economy.

INTRODUCTION

The majority of the world's working poor live in rural area where the lack of decent work opportunities is pervasive. The statements of various researchers are that common constraints to unleashing the potential of rural economies include: a lack of decent jobs and reliable incomes; low productivity; informality; weak enforcement of the rule of law; ineffective organization and participation of rural people in decision-making; under-investment in agriculture, non-farm rural employment and infrastructure; and limited or no access to social protection and services. Moreover, rural economies include also farm and non-farm industry; size and spatial distribution of production and household units and interregional trade; land use; housing and non-housing to supply and demand; migration and depopulation; government policies as to development, investment, regulation and transportation; and general equilibrium and welfare analysis, for example, system interdependencies and rural-urban income disparities. Additional pressures result from climate change, conflict and natural resource depletion, including land and water scarcity. In addition to the above common constraints in low income countries agriculture is most contributors to the livelihood of people in rural community and it also scope for development and ensures the livelihood of the majority of the population (Thomas Reardon et al., 2008).

However, with a clear understanding of the common constraints of the rural economy – This observation directly prompts the following question: [1]what is the rural economy; [2] how is people surviving in rural economy; [3]what are the contribution of the rural economy to the community. Therefore, this study aims to provide answers to these questions thorough analysis of previous studies of informal economy in rural community in rural area.

REVIEW OF LITERATURE

WHAT IS RURAL ECONOMY?

The question of rural economy has different thoughts of opinion, because of increasing density of population, higher prices of farm products, and all other problems incident to a denser population, rural economy will receive in future more attention; and this attention should be intelligently directed. However, among the schools of rural economists, three can be easily distinguished. According to Professor Taylor of Wisconsin as sided by John Ise, (2016) the rural economy is not only that body of economics which relates particularly to agriculture, but also farm management; it looks at the farmer's problems not merely from the social point of view, but also from the individual. The second school of thoughts following Professor Carve would exclude farm management. A third school would hold that there is no such thing as rural economics, but that what is commonly called rural economics is merely a combination of ordinary economics on the one hand and agriculture on the other (John Ise, 2016).

Rural economics, according to Professor Taylor, "has to do with the harmonious adjustment of the relations between useful forms of plant and animal production and the human environment; also between the various people who participate in the production, transportation and marketing of farm products. It is the function of economics to make clear the economic forces with which the farmer has to deal and to develop methods of ascertaining what to produce and how to produce it in order to secure maximum net profits for the farmer and maximum well-being for the nation." (John Ise, 2016).

CONTRIBUTION OF RURAL ECONOMY

The informal economy provides participants with a variety of benefit which include monetary income, goods and services social satisfaction and cultural connection. In addition, the informal economy acts as an alternative distribution network in which those who do not have money to buy goods and services nevertheless are able to access at least some of what they need for both production and consumption (Shanna Ratner, 2000).

Glass, et al., (1989) argues that participation in subsistence lifestyle has payoff beyond the physical needs it satisfies. In addition, surviving critical roles in both supplementing income and providing a source of support during periods when monetary income become scare or non-existent, subsistence activities contribute to overall social, cultural and psychological function. Moreover, the formal economy confers status and wages while the informal economy confers livelihood security and a community based identity (Shanna Ratner, 2000).

The research carries out by Carol stack, (1974) as sided by Shanna Ratner, (2000) on the influential studies of how social relationships and networks operate to meet economic needs, located in the community that was experiencing server economic depression. The economic security experienced by residents kindship network lessened their dependence on formal source meet their daily needs the widely practice strategies involved swapping, trading and borrowing from one house hold to another. In this way the scare range of goods available in the community could be redistributed throughout a number of households service were also swapped. Hence resident could trade their limited skills with their limited skills of their community members and in the process gain access to a wider range of service than their limited skills of their community members and in the process gain access to a wider range of service than their internal resources could cover (Leonard, 1998).

THE DEFERENCE BETWEEN INFORMAL AND FORMAL ECONOMY

The formal economy is the portion of natural, human, manufacturing and entrepreneurial capital used to meet our need that we are actually account. Formal economy is measured by rate of unemployment, the gross national product, the rate of housing starts, etc. Thus help us to keep track of what is happening in formal economy. While the majority of the economic activities we do don't count and is that what is considered to be the informal and or / criminal in nature eg., self-provisioning, caring worker, barter and volunteer activities etc. additionally the informal economy is often thought of kind of "safety net" for those who don't find a place in formal economy (Shanna Ratner,2000).

WHAT THE INFORMAL ECONOMY?

Informal economy is known as various invisible, shadow, secondary, underground, clandestine, undeclared, subterranean, etc. It includes everything from house-hold production and consumption (sometimes calls self-provisioning) of goods and services (paid and unpaid) to interhouse barter, sharing, unprotected business transactions, volunteer worker, subsistence production etc. However, informal economy is part of every life and house hold survivals strategy among the rural community, yet its contribution to well-being remains poorly understood and largely ignored by both practitioners and the policy maker (Shanna Ratner, 2000). Leonard, (1998) state that "economic activity which is not recorded in official statistics and which is operates in absence of administrative monitoring control" is to be considered as informal. Moreover, some portions of the informal economy are illegal by virtue of being unprotected while the other are inherently criminal eg., (drug dealing, money laundering etc). However, the study of this paper will not look into the criminal informal economy.

APPROACHES TO RURAL DEVELOPMENT POLICY

The differences in economic development regions have not only attracted the attention of academics, but that of policy makers as well in order to reduce regional differences. In the debate on rural development policy two major conflicts of rural development strategies can be distinguished: exogenous versus endogenous development and top-down versus bottom-up direction. Each of these pairs addresses a particular aspect of development. In the exogenous-endogenous dialectic the focus is on the origin of employment growth: according to the exogenous development approach, employment growth is considered to be transplanted into a region and mainly externally determined, while the endogenous development approach assumes that employment growth is produced by local impulses and largely based on local resources. The top-down versus bottom-up debate deals with the competences of administrative tiers: in a top down approach, national administrative layers take the lead in the development process, and they are in charge of decision making on policy objectives and policy implementation, whereas in a bottom-up approach local actors are the initiators of the development process and are responsible for decision making and implementation of policies (www.rug.nl/research/portal/file).

The word "integrated" emphasizes the interaction between actors, sectors and projects. *LEADER* and policies should be implemented by means of strategic development programmes designed in mutual consultation with local actors, entrepreneurs and administrative layers. However, due to lack of knowledge on the working of decisive factors in the rural development process and main features governing the interaction of local and external actors, it is difficult to achieve the aim of such rural development programmes. (www.rug.nl/research/portal/file).

INCOME DISTRIBUTION IN RURAL REGIONS

The economic income distribution referred to the way total output, income, or wealth is distributed among individuals or among the factors of production such as Labour, land and Capital. In general theory and the national income and production accounts each unit of output corresponds to a unit of outcome. One use of national account is for classifying factor income and measuring their respective share, as in national income but where focus is on income of person or households, adjustments to the national account or other data sources are frequently use (Atkinson A. B. and Bourguignon F., 2000).

Tweeten, Luther., (1974) as sided by Lynn Reinschmiedt, and Lonnie L. Jones, (1997) the basis of concern for rural development is how "increased economic gain" is been lagging economic growth in rural communities. Many rural regions have been face with the dilemma of low income, inadequate or expensive community services, net out migration and high dependency rates. Numerous programs have been enacted over the years to alleviate these problems. The Act of 1972 of Rural Development interprets the main objective of rural development to encourage and speeding economic growth in rural areas to provide for jobs, improving quality in rural life and doing so on a self-earned, self-sustaining basis. One chief component of all these programs is to promote industry location in rural communities.

Lynn Reinschmiedt, and Lonnie L. Jones, (1997) states considering amount of research effort has been expended in evaluating the economic impact of industrialization on rural communities and most studies concentrated on aggregate measures, such as increases in total employment, incomes generated and associated costs of industrial development. More recently, attention has been directed toward evaluating the distributional impact of industrial development.

According to Reinschmiedt and Jones, (1997) the study by Garrison and Shaffer emphasized distribution of industrial impact among selected sectors of the local economy; most notably the municipal government, private and school district sectors have been explained. With this breakdown of the local economy, the private sector was found to receive the bulk of net benefits resulting from industrialization.

The study done by Reinschmiedt, Lynn., (1976) to evaluate the economic impact of nine industrial locations in six rural Texas communities with population of less than 15,000. Three of nine plants were tied to local inputs, whereas the remaining six firms could be described as "footloose." Average annual 1974 employment ranged from 28 to 152 employees. Payrolls ranged from $144,000 to $1,050,000 with a plant average of $417,058. The result of this study showed that the private sector, which consisted of those directly employed within the industry as well as businesses and individuals meeting input and service demand generated by new industry and its employees, on and average received 97 percent of total community net gains. Excepting one school district, industrialization benefits exceeded associated costs in the private, municipal government and school district sectors for all plants.

However, the previous research on economic development and income benefit to rural regions most of the studies are based on the farm agricultural activities rather than the non- farm activities. In response to this statement could be that the non-farm activities require investment in assets. The literature employ model that assumes that investment is a function of households' incentives and capacity to investment. In theory, the incentives to investment in non-farm assets differ between rich and poor households. According to Newbery and Stiglitz, (1981) risk aversion varies inversely with wealth therefore the extent to which risk affects farm household behaviour depends critically on risk aversion. The risk incentives to diversify income sources vary by the household's position in the income distribution by the nature of the assets, specifically, their degree of convertibility to cash in general, they are higher for poor households and households with few liquid assets than for richer households or households whose assets are highly liquid, by contrast, in the absence of perfect credit and insurance markets, capacity to invest increases with household wealth. If diversification is costly (i.e., has high entry barriers, which is a stylised fact that empirical evidence tends to support, as discussed above) and initially risky, wealthy households are also in a more favourable position to diversify into non crop activities (Stamoulis, 1997).

Thus, while a risk model without credit constraints might predict that households will diversify less as their wealth increases (because the risk aversion motive for diversification declines as household wealth increases), liquidity and credit constraints on diversification for the poor may lead to the opposite outcome: the poor may want to diversify for risk reasons but cannot do so because of liquidity constraints, and thus one observes more diversification among the non-poor than among the poor. The rich may have less of a risk incentive to diversify, but they are in a superior position to self-finance this diversification. A well-functioning rural credit market could make the liquidity of the rich available for diversification by the poor; however, efficient rural credit markets are the exception, not the rule, in Less Develop Countries (LDCs) (Thomas Reardon, J. et. al, 2000).

The empirical results over the regions an investment portfolio perspective is useful for interpreting the mix empirical results concerning the relationship between the share and level of non-farm income in total income. The U-shape or inverse relationship between non-farm diversification and income or wealth depends on the following (Thomas Reardon, J. et. al, 2000):

✓ The availability of high labour-to capital-ratio jobs with low barriers of entry for poor (holding few assets) households. That availability in turn appears to be associated with the characteristics of those regions: relatively good infrastructure, high population and market density, dynamic agriculture, unequal land-holdings, and rur-urbanisation (urbanisation of the rural areas via growth of intermediate cities and rural towns);

✓ The possibility for households to specialise in land-intensive crop production, again, occurring more commonly in Green Revolution areas;

✓ The ability of higher-asset households to diversify into more capital-intensive activities, self-financing this diversification or else using their assets as collateral in an incomplete credit market. Asset holdings enable high-asset households to diversify production for expected-income as well as risk motives.

CONCLUSION

In order to achieve more insight into factors behind current economic development and regional distribution in rural areas, the researcher has mainly used literature, theories and previous research on rural studies distribution and development. By doing so, there is an observation that the income distribution in rural regions needs more intervention and assistance for the community to gain more income in order to sustain their living standard in a better way through development and equal distribution in their regions.

In order to get the idea from the "hard core" economics, a rich body of literature from the discipline of regional economics was consulted. The said literature attempts to explain the economic behaviour of regions or more specifically, to describe and explain the distribution of economic activities over regions. The literature covers the institutional perspectives on regional economic distribution and economic development.

However, through the analysis of various study for regional distribution the researcher observed that beside the Act of 1972 of rural development that interprets the main objective of rural development to encourage and speeding the economic growth in rural regions to provide jobs, improve quality in rural life and doing a self-earned and self-sustaining basis, rural regions are faced with the dilemma of law income, expensive community services, net out migration and high dependency rate. Additionally, the distribution in rural regions the income bulk and net benefit resulting from the industrialization is mostly being received by the private sectors.

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ROLE OF BANKS IN ECONOMIC GROWTH OF SIKKIM

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ABSTRACT

Banks play the vital role in the economic development of a country. They create new demand deposits in the process of granting loans and purchasing investment securities. They facilitate trade both inside and outside the country by accepting and discounting of bills of exchange. The present study is done on East Sikkim. Both primary and secondary data was used for the study. Primary data has been collected from the six villages of East Sikkim and secondary data has been collected from Reserve Bank of India report, State Level Bankers committee report, publish papers and from different agency. Descriptive Statistics and Regression analysis were used for the study. It was found that over the year number of branches of the commercial banks show an increasing trend. For running regression, we used deposit and credit account as independent variables and Gross Domestic Product as the dependent variables. It has been found that deposit and credit has positive impact on the GDP of Sikkim, which implies that banks variable has positive impact on the economic growth of the state. From the primary data it has been found that 93.3 percent of the household have account in the different banks, which implies that banks are able to include financially excluded people into the financial institution.

KEYWORDS

investment, deposit, credit, financial institution.

INTRODUCTION

The everyday problem of unemployment encounter, due to unavailability of services and the large section of the people have excluded from the financial inclusion. In recent years, the Indian government has been considerably trying to make the financial system more equitable in the sense that poor people also equally benefited. The government of India has tried to widen up the banking system in rural part of the country as well. But there is still a concern that bank has not able to include the large section of the society especially excluded groups like women, unorganised sector workers, casual labourer and self-employed into its ambit (Dev, 2006). A well developed financial system allowed people access to funds, help to empower low-income group people and help them to improve their standard of living and help to take part in economic activity very well (Mohan, 2006). Various programmes have been initiated such as general credit card for the poor and disadvantaged section of the society. RBI permitted financial institution such as the commercial bank in the year 2006 to make use of other organisation for the inclusion of people into the usage of the financial system. Reserve Bank of India's vision for 2020 is to open nearly six hundred million new customers' accounts in the different financial institution (RBI, 2006). The government of India also announced Pradhan Mantri Jan Dhan Yojna (PMJDY) to provide a bank account to nearly 75 million people by January 26, 2015. Various programmes have been initiated by the RBI in order to achieve higher financial inclusion such as No Frill Account, Business Correspondence Model, Relaxation on Know your Customer, Electronic Benefit Transfer, Generalized Credit Card and the opening of banks in unbanked areas in the country.

Census of India and RBI (2011) information on the household use of banking services, found that Sikkim (65.5 percent) household are availing banking services. Number of household availing banking services in rural Sikkim was 67.89 followed by 32.11 in urban area. Household availing banking services is highest in East District. The reason may be due to the larger number of banks in East Sikkim, highest population and financial literacy etc. North Sikkim is lack behind in availing banking services. Access to the financial institution or financial inclusion is important to manage household income and improve their living standard in the society through improving their economic position. Poverty and finance are highly interconnecting terms, financial inclusion of the poor mean the reduction in the poverty and lead to inclusive growth which in turn means that equal opportunity for all section of people and opportunity are available for the all. In the report RBI, it has been highlighting the banks to achieving greater financial inclusion to make available a basic no-frill banking account to those who do not have. K.C Chakraborty, the Chairman of the Indian Bank is the person who introduces the FI in the year 2005 and Mangalam is the first village in India where all people have banking facilities. Sikkim is the least populous state of India, having population around 610577 in 2011 census. In terms of land area, it is ranked in second after Goa with an area of 7096sqkm and almost the entire area is mountainous. Population is unevenly distributed across the four district of the Sikkim. In the north Sikkim the population density is 10 persons per square kilometre. The total area of north Sikkim is 4226 square kilometre, which occupy largest area of the state but in terms of population there is only 43709 across district. Around 46 percent of the population reside in the east district of Sikkim and density of the population is 297 and area comes under the east district is only 954 square kilometre. The world third highest mountain Khangchendzonga (8586 metres) is located in India. Sikkim is considered for the hop tourist destination. Sikkim has many mountain peak, 84 Glacier, 315 Glacial lakes like Tsomgo, Gurudongmar and Khecheopalri) but in most of the part due to rocky and high slopes makes agriculture, transportation and communication difficult, (Human development report). Sikkim has also the rich biodiversity and diverse climate condition. Area experience heavy rainfall due to the proximity of the Bay of Bengal. Sikkim share its boundary with country like China, Nepal and Bhutan which has strategic benefit in term of trade and pursuing India act east policy. According to human development report growth of Sikkim gross domestic product and the per capita income is slow due to the low agriculture production and limited manufacture production unit. Seventy-five percent of the population of Sikkim is live rural area.

The closest state of Sikkim is Bengal in the west. The economy of Sikkim is based on animal husbandry and agriculture. About 11 percent of land is used for the agricultural practices in Sikkim. Sikkim agriculture is mixed types and at the subsistence level not at the commercial level. As per the census 2011 workforce participation rate is around 50.3 percent with 53.3 percent in rural areas and 41.9 percent in urban areas. Over the one decade the population growth of Sikkim is 12.9 percent. The total male population of Sikkim is 321661 and female population is 286027 which are quite lower than male population. The sex ratio of Sikkim is 889 females per thousand males. The literacy rate of Sikkim stands 82.3 percent and 87.3 percent for male and 76.4 percent for female.

REVIEW OF LITERATURE

Ramji (2009) analysed the financial inclusion in Gulbarga by collecting primary data. Study found that the there is negative relation with the bank account and the NREGA, which implies that people open account when government of India made mandatory rule for receiving payment of NREGA through bank before that many

people does not have bank account. Cost of travelling to the bank is about 20 rupees from study area and average weekly save for the SHG is 10 rupees which means it cost twice to visit bank so study find that people prefer to save elsewhere.

Bhatia and Charterjee (2010) examined the role of financial inclusion in the slums of Mumbai. Study found that only one third of the urban slum dweller had bank account. Study revealed that there no respondent which has bank account in private bank. Surprisingly only one or two respondent are aware of the rate of interest prevailing in the bank. Study also found that only 96 percent of the respondent has proof identity, it may be no proof identity they could not open the bank account.

Ghatak (2013) analysed the demand side factor effecting financial inclusion. Study found that accessibility, culture, asset, literacy and income are the important factor of the financial inclusion and against it most significant factor is accessibility. Correlation result also shows that accessibility has the highest correlation which is followed by literacy, income, culture and asset.

Sahu (2013) analysed the role of commercial banks on financial inclusion and economic growth in India. To show the relationship between index of financial inclusion and net capita state domestic product study has used regression analysis and found that this two are positively associated with each other. Study found that no state in India belong to high index of financial inclusion and only two state Delhi and Chandigarh belong to medium IFI and rest belong to low IFI.

Fadun (2014) study examined role played by the financial inclusion for alleviate poverty and redistribute income in developing countries, with special reference to Nigeria. It explores the financial inclusion efforts made at the global level, and highlights the financial inclusion strategy developed in Nigeria. It has been found that the number of Nigerians that are excluded from financial services decreases over the year. The findings indicate that financial inclusion constitutes important tool for alleviating poverty and redistributing income in developing countries, particularly in Nigeria.

Jagtap and Barhate (2014) The research study includes study of sector wise credit allocation in Thane district for the year 2009-10 to 2012-13 and study focuses on the activities of lead bank in Thane. It was found that the Lead Bank has a greater impact on the country's economic growth and development. The scheme has been made successful in providing credit mainly to the low income group of people in the society and promoting coordination among different agencies for the development of the country the year 2009-10 to 2012-13.

Mir et al, (2014) tried to analyse the progress of financial inclusion in state Jammu and Kashmir, study found that over the year total credit in the Jammu and Kashmir shows an increasing trend. It has also been found that this credit includes both priority and non priority sector of the state.

Mor and Anand (2015) attempt has been made to see the role played by ICICI bank and also tries to focus on empirical issue. it has been found that from the empirical study that financial inclusion has positive impact on the poverty alleviation and the growth of the country.

Kananth, R. (2015), the emphasis as to be on innovation and creating financial instruments, which capture the advantages that borrowers receive in taking loans from the informal sector. Recognition of the role of social collateral embedded in National Bank for Agriculture and Rural Development led self-help group (SHG)-bank linkages, the need for a hassle free, no frills bank accounts and issuance of timely credit through the KKC are only a beginning in this direction.

RESEARCH GAP

Majority Sikkim's people especially live in rural areas and Banks is the need of the people in Sikkim. One of the special ways to lift people from the poverty is to through inclusive growth, so this can be done through the financial institution like bank. Much study has been done in national and state level but very few studies have been done in household level. And till now no such study has been done in Sikkim so far, so this study will try to fulfil this gap.

RESEARCH QUESTIONS

What is the role of banks in the economic growth of Sikkim?
How far the bank is succeeded to bring people into the financial institution?

OBJECTIVES OF THE STUDY

1. To estimate the status of banks and its role in economic growth in Sikkim.
2. To know the role of banks to bring people into financial institution.

HYPOTHESES

- Growth in number of deposit and credit account has positive impact on the economic growth of Sikkim to know the performance of banks in financial inclusion.

DATA SOURCE AND METHODOLOGY

The present study covers the period from 2005 to 2015. This chapter employ the way of collecting data, statistical tools used for data analysis and model used for the study. Present study has been carried out on both primary and secondary data sources. Data have been collected from the Reserve Bank of India, State level Bankers Committee Report, and Census of India. Primary data has been collecting from the 6 villages of East Sikkim. For collecting primary data stratified random sampling has been used. First East Sikkim were chosen for the study and villages were chosen by distance from the market. First 2 villages namely Marchak and Tumlabong chosen which is nearer to market and similarly two village Nandok and Syari have chosen which is little far away from the market and finally two village that is Pandam and Aahoo have been chosen which is far away from the market place. From each village 20 household has been chosen for the study and overall 120 households had been surveyed.

ANALYTICAL METHODOLOGY

In order to look at the role of different banking indicator in the economic growth in Sikkim the Ordinary Least Square Regression method has been used. For calculating OLS estimation, data has been collected from the secondary sources. For this data is used for the year 2005 to 2014. The formula used for running the regression is

$Y_i = B_1 + B_2 X_1 + B_2 X_2$

Where,

Y_i is the Gross Domestic Product of Sikkim

X_1 is deposit account

X_2 is the credit account

U_i is the random disturbance term

Result and Discussion

From 2005 when FI policy was implemented, the offices of CB branches increase rapidly. Presently almost the block was cover by the CB by opening the banks branches.

FIGURE 1: NUMBERS OF COMMERCIAL BANKS OFFICES IN SIKKIM (2007 TO 2014)
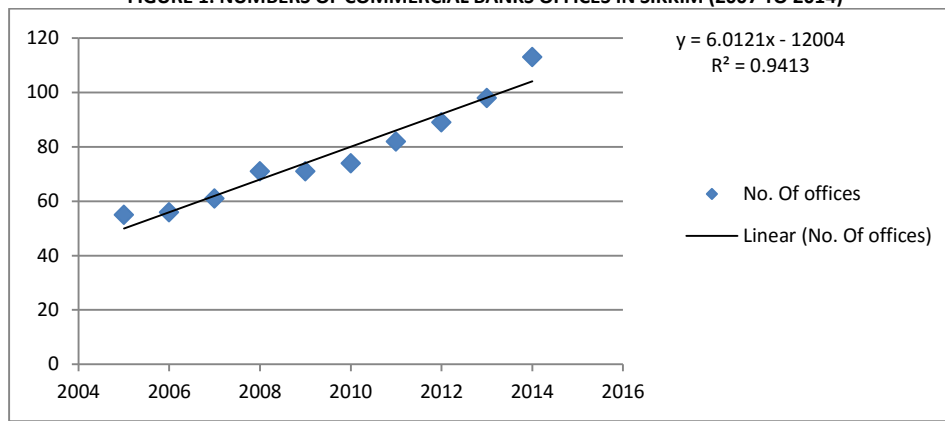
Sources: SLBC Report of Sikkim (2014)

Figure 5.1 give the trend line on number of office of the commercial banks of Sikkim between the years 2005-2014. Above figure show that over the year the number of offices of commercial bank in Sikkim is increasing over the year which shows that Sikkim has the high demand of the banking services. Result reveal that the growth rate of expansion of bank branches is 6 percent per year.

CREDIT AND DEPOSIT RATIO

Credit and deposit is also one of the important factors of financial inclusion. Ground level credit flow is important aspect of economic growth of Sikkim. Since Sikkim is an agrarian state the performance of banks in Sikkim is not satisfactory.

TABLE 1: SECTOR WISE CREDIT FLOW OF INCOME IN SIKKIM

Year	2012			2013			2014		
Sector/bank	Target	Achievement	% Achievement	Target	Achievement	% Achievement	Target	Achievement	% Achievement
Agriculture	72.05	33.59	46.6	70	21	30	147	31.05	21.13
Industries	11.03	19.55	177.3	11	19.71	179.18	12.63	8.01	63.49
Service/Tertiary	187	257.82	137.9	200	159.78	79.9	204	133.56	65.47

Source-SLBC Report 2014

Above table reveal that Sikkim as an agrarian state the performance of banks in agriculture and allied activities is not at expected level and performance is below 50 percent over the three year. The data reveals contradictory picture in industry where the achievement percent is 179.18 percent is 2013 whereas it has decline 63.49 percent in the year 2014. Service sector show a tremendous improvement.

TABLE 2: CREDIT DEPOSIT RATIO QUARTER ENDED MARCH 2015 IN SIKKIM (Amount in Thousands)

Districts	Deposit	Credit	CD Ratio
East	47915192	38819811	81.02
West	3176671	1256662	39.56
North	1227106	614736	50.10
South	4601892	2296328	49.90
Total	56920861	42987537	75.52

Source-SLBC Report, 2015

Above table reveal the district wise credit deposit ratio for the quarter ended march 2015. It has been revealed the credit deposit ratio of Sikkim is stood at 75.52 percent. East Sikkim has shown a tremendous improvement in the credit deposit ratio at 81.02, followed by 39.50 in west Sikkim, 50.10 in North Sikkim and 49.90 in South Sikkim. Reason of low CD ratio in three districts may be due to the less number of populations, number of bank branches and may be due to the financial illiteracy.

ROLE OF BANKS IN ECONOMIC GROWTH OF SIKKIM

To see the role of banking in economic growth we used credit and deposit account with state gross domestic product. The data cover for the OLS estimation is taken from the year 2005 onward. OLS estimation has been done by using the software Stata 10.

TABLE 3: RESULT OF REGRESSION ANALYSIS

Dependent variable: GDP

Variable	Coefficient
Deposit	0.011*
	(0.0013)
Credit	0.032
	(-0.157)
Constant	-151
No. of observation	120
R. Square	0.91
F statistic	39.37*
P value	0.013

Note: *denotes 1% level of significance.

Source: Author's calculation

$GDP = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + U_i$

Where,

GDP is the Gross Domestic Product

X_1 is the bank Credit Account

X_2 is the bank Deposit Account

Holdings the other variable constant, if Bank Deposit Account increases by 100%, then on an average GDP increase by 1.1%. On the other hand, if Bank Credit Account increases by 100%, on an average GDP increase by 3.2%, ceteris paribus. The value of R^2 0.91 which means 91 % of variation in GDP is explained by the variation in bank deposit account and credit account. The F value is given as 39.37 with a p value of 0.013. It suggests that collectively both the explanatory

variables have an impact on GDP. Therefore, our hypothesis that there is increase in number of deposit and credit account has positive impact on the economic growth of Sikkim is accepted.

TABLE 4: GENDER WISE DISTRIBUTION OF RESPONDENT

Gender	Frequency	Percent
Female	39	32.5
Male	81	67.5
Total	120	100

Source: Primary Data

From each village 20 respondents were selected and the total number of respondent is 120. Out of 120, male respondent is 67.5 percent and remaining 32.5 percent is female.

TABLE 5: FAMILY SIZE

Family Size	Frequency	Percent
2	3	2.5
3	33	27.5
4	34	28.3
5	30	25
6	9	7.5
7	9	7.5
8	2	1.7
Total	120	100

Source: primary data

Family size is another variable factor effecting financial inclusion status of household. Larger family tend to have higher expenditure causing low level of saving. From 120 household surveys 2 household had three member and person having 4 members 28.3 percent. 2 household has eight members in the family.

TABLE 6: LEVEL OF EDUCATION

Education Qualification	Frequency	Percent
Illiterate	9	7.5
Primary	34	28.3
Below Secondary	29	24.2
Secondary	21	17.5
Above Secondary	27	22.5
Total	120	100.0

Source: Primary Data

Education is yet another factor bearing on level of financial inclusion among the people. Financial literacy is also determined by the level of education. Therefore, education attainment is one of the important factor effecting financial services. Study found that out of 120 respondents 9 are illiterate, 28.3 percent has primary education, 24.2 percent has below secondary education and17.5 has secondary education. Only 22.5 percent has above secondary education.

TABLE 7: HAVING BANK ACCOUNT

Having Bank Account	Frequency	Percent
No	8	6.7
Yes	112	93.3
Total	120	100

Source: primary data

Out of 120 Respondent 93.3 percent has an account in the banks and remaining 6.7 percent does not have an bank account. It has been found from the surveyed that this eight people does not have bank account due to low level of income and some people do not open account because they do not have any ID.

TABLE 8: ACCESS TO LOAN AND BORROWING

Access	Frequency	Percent
No	53	44.2
Yes	67	55.8
Total	120	100

Source: Primary Source

Since loan is the one of the important variable which we can see that how people are financially included. Out of 120 households 55.8 percent of people take loan from different sources and remaining 44.2 percent does not access to loan.

CONCLUSION

It has been found that over the year branches of Sikkim show an increasing trend. It has been found that Credit and deposit account has the positive impact on the GSDP. It has been revealed the credit deposit ratio of Sikkim is stood at 75.52 percent. East Sikkim has shown a tremendous improvement in the credit deposit ratio at 81.02, followed by 39.50 in west Sikkim, 50.10 in North Sikkim and 49.90 in South Sikkim. Household availing banking services is highest in East District. The reason may be due to the larger number of banks in East Sikkim, highest population and financial literacy etc. North Sikkim is lack behind in availing banking services. Census of India and RBI (2011) information on the household use of banking services, found that Sikkim (65.5 percent) household are availing banking services. From the primary data collected from the six villages of East Sikkim it has been analyse that over the year there is progressive trend in the inclusion of people into the financial institution, in order to encourage people to use financial services, policy makers such as RBI and Government must a use various pro-gramme to reduce the financial barrier among the people.

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EDUCATION: A TOOL FOR WOMEN EMPOWERMENT

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ABSTRACT

Women is pillar of relatives, society, nation. if they empowered society, nation, economy empowered automatically. Indian Government taken various step to uplift them for development of society, nation. Earlier studies shown us the status of females as gender discrimination, illiteracy etc. but in modern India they can see the changing face of society. Society must take initiative to generate a climate in which there is no gender discrimination and Females have full opportunities of Self decision making and participating in the Social, Political and Economic life of the Country with a sense of equality.

KEYWORDS
women Empowerment, women education.

INTRODUCTION

Vedic period has witnessed equal rights for ladies in the field of schooling, religion, politics, property & inheritance. In the work of the medieval period society had become patriarchal & men- ladies difference was evident. Men-women role was decided on the basis of sex. Ladies were consigned inside the tour venue of home. It was thought about to be the worst period in the history. In the work of the modern period lots of social reformers felt the necessity to emancipate ladies & tried to establish a justified place for them in the relatives & society. The thinkers & social reformers realized that unless the condition of 50% of Indian population is improved Indian society cannot progress. But some areas obtain the success for their holistic development.

EMPOWERMENT

Empowerment refers to increasing the economic, political, social, educational, gender, or spiritual strength of an entity or entities. Empowerment is the process of obtaining basic opportunities for marginalized people, either directly by those people, or through the help of non-marginalized others who share their own access to these opportunities. It also includes actively thwarting attempts to deny those opportunities.

TRENDS OF EMPOWERMENT

Through the different trends of empowerment economy achieve holistic development.

AT TOP DEGREE: societal or society up gradation is needed to achieve the economic and social objective of economy. Under this trend society give Equal access to participation and decision making of women in social, political and economic life of the nation Equal access to women to health care, quality education at all levels, career and vocational guidance, employment, equal remuneration, occupational health and safety, social security and public office etc.

AT MIDDLE DEGREE: Group level empowerment is needed to uplift women. With the help of different groups women achieve potential to face social problem which are not faced by them alone. various group exist for:

Engendering Policies and Strategies, Violence against Women, providing financial help, provides training for projects, technical know-how, competitive skills etc.

AT LOWER DEGREE: Women are the pillars of creation, existence & sustainability of a mankind & their empowerment ought to start from the micro level. empowerment as building confidence, insight & understanding, & developing personal skills, for example, being able to analyze situations & communicate more effectively with others. Being empowered presupposes some level of common sense & emotional maturity & access to appropriate knowledge & know how; it also implies someone who cares about others & is tolerant of other's views & behavior.

Female empowerment is thus concerned with changing the power relations between individuals & groups in the society & involves awareness raising building of self-confidence, expansion of choice, involvement in decision making & increased access to & control over resources unless they themselves become aware of the oppression met out to them & show initiative both to push forward. It can generate a chance to alter their status much. A quantity of the empowerment could be identified as follows-

- Literacy & higher schooling.
- Better health takes care of her.
- Higher age of marriage.
- Greater work participation in modernized sector
- Necessary financial & service support for self-employment.
- Opportunities for higher position of power.
- Complete knowledge of her rights & above all.
- Self-reliance, self-respect & dignity of being females.

SOCIAL AND ECONOMIC WAYS FOR EMPOWERMENT OF WOMEN

The objective of many countries to increased female literacy and enrolment rates, upgrade gender equality in education, turn down infant and child mortality rates, maternal mortality rates and betterments in health of women. The participation of women in formal economic activities has also acknowledged.

1. PARTICIPATION IN ECONOMIC AFFAIRS

Economic empowerment constitutes of the essential building blocks in efforts towards the general empowerment of ladies. Participation in formal economic activities on terms and conditions which reflect the productive capacity of ladies, and their control over their own incomes, are a quantity of the important dimensions of economic empowerment. Although the increasing work participation of ladies has been viewed as part of the general employment boom created by the export-led economic expansion, female labour-force participation rates have tended to increase over those for men in the Asian and Pacific region, proposing that women economic participation has been a critical feature of the region quest for the economic empowerment of ladies.

2. SOCIAL EMPOWERMENT

Social empowerment is understood as the system of developing a sense of self-confidence and self-achievement, and acting individually and in group to adjust social relationships. It covered the ability of individual as human such as nice health and schooling, social such as social belonging, a sense of identity, leadership relations and psychological self-esteem, self-confidence, the ability to imagine and aspire to a better future. Changes in women's attitudes are among the most critical factors in driving progress and economic empowerment.

3. ANALYZE TO INFORMATION TECHNOLOGY

Promoting access to productive resources & social support systems constitutes of the essential building blocks in efforts to empower females in the region. Access to productive resources such as credit, expertise, infrastructure, promotion links & networking facilities can significantly enlarge opportunities for females to

engage in formal economic activities & improve their social status. In that regard, promoting access to new & emerging technologies, including information & communication expertise, has become a powerful tool for women's empowerment.

A LOOK AT WOMEN EDUCATION SCENARIO

Gender discrimination has been a major hindrance in granting equal opportunity for females in Higher Schooling. It's been identified as an important section & deserves attention in the education-equality paradigm. Today, womens schooling has become an issue of debate within which it is now necessary to shift the focus from women's intellectual development to women's autonomy in decision-making, freedom of expression & control over resources. Empowerment is the mani-festation of a redistribution of power that challenges patriarchal ideology, transforming the institutions that reinforce or perpetuate gender discrimination. The parameters of empowerment have been identified as

One. Developing ability for critical thinking;

Two. Fostering decision-making & action through collective processes;

Three. Ensuring equal participation in developmental processes;

Four. Enhancing self-esteem & self-confidence in females.

TABLE 1

YEAR	Rural			Urban			Combined		
	Female	Male	TOTAL	Female	Male	TOTAL	Female	Male	TOTAL
1951	4.87	19.02	12.1	22.33	45.6	34.59	8.86	27.15	18.32
1961	10.1	34.3	22.5	40.5	66	54.4	15.35	40.4	28.31
1971	15.5	48.6	27.9	48.8	69.8	60.2	21.97	45.96	34.45
1981	21.7	49.6	36	56.3	76.7	67.2	29.76	56.38	43.57
1991	30.17	56.96	36	64.05	81.09	67.2	39.29	64.13	52.21
2001	46.7	71.4	59.4	73.2	86.7	80.3	53.67	75.26	64.83
2011	58.75	78.57	67.8	79.92	89.67	84.1	65.46	82.14	74.04
% increase in 2011 over 2001	26%	10%	14%	9%	3%	5%	22%	9%	14%

But Nowadays As per 2011 census, literacy rate in India has been reported as 74.04% with a 14% increase to that in 2001, whereas the hike is maximum for rural women at 26% in the last decade, which may be attributed to literacy mission of Government of India. Overall female literacy rate in India much lower than that of male literacy rate. The female literacy levels according to the Literacy Rate 2011 census are 65.46% whereas the male literacy rate is over 80%. The Gross Enrolment Ratio (GER) for females at the primary level stood at 102.65 compared with 100.20 for males in 2013-14. At the middle class level, the GER for females has been reported as 92.75 against 86.31 for males and at the higher secondary level, 51.58 and 52.77 is the Gross enrolment ratio for females and males during 2013-14.

LITERACY RATES IN POST INDEPENDENT INDIA

TABLE 2: STATE-WISE LITERACY RATES OF FEMALE IN LAST 3 DECADES

States	1991	2001	2011
A & N Islands	65.5	75.2	82.4
Andhra Pradesh	32.7	50.4	59.1
Arunachal Pradesh	29.7	43.5	57.7
Assam	43.0	54.6	66.3
Bihar	22.0	33.1	51.5
Chandigarh	72.3	76.5	81.2
Chhattisgarh	27.5	51.9	60.2
D & N Haveli	27.0	43.0	64.3
Daman & Diu	59.4	70.4	79.5
Delhi	67.0	74.7	80.8
Goa	67.1	75.4	84.7
Gujarat	48.6	58.6	69.7
Haryana	40.5	45.7	65.9
Himachal Pradesh	52.1	67.4	75.9
Jammu & Kashmir	NA	43.0	56.4
Jharkhand	-	38.9	55.4
Karnataka	44.3	56.9	68.1
Kerala	86.1	87.9	92.1
Lakshadweep	72.9	80.5	87.9
Madhya Pradesh	29.4	50.3	59.2
Maharashtra	52.3	67.0	75.9
Manipur	47.6	60.5	72.4
Meghalaya	44.9	59.6	72.9
Mizoram	78.6	86.8	89.3
Nagaland	54.8	61.5	76.1
Odisha	34.7	50.5	64.0
Puducherry	65.6	73.9	80.7
Punjab	50.4	63.4	70.7
Rajasthan	20.4	43.9	52.1
Sikkim	46.7	60.4	75.6
Tamil Nadu	51.3	64.4	73.4
Tripura	49.7	64.9	82.7
Uttar Pradesh	24.4	42.2	57.2
Uttarakhand	41.6	59.6	70.0
West Bengal	46.6	59.6	70.5
India	39.3	53.7	65.5

Source: Office of Registrar General, India.

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This data shows the empowerment of women in education field as per education women empowered through another ways:

EMPOWERING WOMEN IN BUSINESS

The government of India set aside some reasonable amount of money which females who have business ideas can borrow in order to start businesses. Females are encouraged to start tiny business in order to have their own source of income thus they become independent. Various non-governmental organizations also offer financial support to females in India & encourage & teach them how they can be making their own money by beginning various business activities. The status of the females in India has greatly improved & there's lots of females who are holding high position in the government offices. This has proved that females can be even better than men in the event that they are given a chance. Females are given equal opportunity like their male counterparts by the government.

GLOBLISATION AND WOMEN EMPOWERMENT

Globalization is that it's opened up broader communication lines & attracted more companies as well as different organizations in to India. This provides opportunities for not only working men, but also females, who are becoming a bigger part of the workforce. With new jobs for females, there's opportunities for higher pay, which raises self-confidence & brings about independence. This, in turn, can promote equality between the sexes, something that Indian females have been struggling with their whole lives. Globalization has the power to uproot the traditional treatment towards females to afford them an equal stance in society.

WOMEN EMPOWERMENT THROUGH SELF HELP GROUPS

The female's empowerment through SHGs in india. It is found that the income of the females has been increased after joining the SHGs. So that every month household expenditure also has been raised considerable level. But the savings is increasing at slow rate, because the incremental expenditure is higher. Mostly they are spending for present consumption. The members ought to alter it. The nice practice of the females SHGs in the study area is repayment of the loan in time. they may conclude that the economic activities of SHGs are success.

WOMEN IN AGRICULTURE

The ladies are the backbone of agricultural workforce but worldwide her hard work has mostly been unpaid. They does the most tedious & back-breaking tasks in agriculture, animal husbandry & homes. The research efforts at the ICAR institutes have been tried to relieve her of the drudgery by providing time & labour saving tools. Vocational trainings are also being conducted, to impart skills to undertake different avocations. In extension activities the ladies is now the centre point & activities are being planned keeping her in view. Her enlightenment will change the face of rural India. Several programmes started at the National Centre for Ladies in Agriculture & Krishi Vigyan Kendras, are the right steps in this direction. Women comprise anaverage of 43% of the agriculture labour force in developing countries.

MAIN GOALS OF 12TH FIVE YEAR PLAN IN INDIA TOWARDS WOMEN

- Creating greater freedom to choice for females by generating awareness & generating institutional mechanisms to help females query prevalent patriarchal beliefs that are detrimental to their empowerment.
- Improving health & schooling indicators for females like maternal Mortality, kid mortality, nutrition levels, enrolment & retention in Primary, secondary & higher schooling.
- Reducing the incidence of violence against females & providing quality care Services to the victims.
- Improving employability of females, work participation rates in the Organized sector & increased possession of assets & control over Resources.
- Increasing women access to public services & programs through Establishing & strengthening convergence mechanisms at multiple levels, Creation of physical infrastructure for females & improving the capacity of Women organizations & collectives.
- Ensuring that the specific concerns of single & disadvantaged females are addressed.

CONCLUSION

Women is pillar of relatives, society, nation. if they empowered society, nation, economy empowered automatically. Indian Government taken various step to uplift them for development of society, nation. Earlier studies shown us the status of females as gender discrimination, illiteracy etc. but in modern India they can see the changing face of society. Society must take initiative to generate a climate in which there is no gender discrimination and Females have full opportunities of Self decision making and participating in the Social, Political and Economic life of the Country with a sense of equality.

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TRENDS AND APPROACHES ON DEVELOPMENT OF WOMEN ENTREPRENEURSHIP

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ABSTRACT

Today, women entrepreneurs account for up to a third of all businesses operating in the formal economy global. However, the majority of those in rising and transitioning economies are very small and micro enterprises, with little potential for expansion. Apart from being under-represented in enterprises of all sizes, the bigger the firm the less likely it is to be headed by a woman. Societal attitudes and norms inhibit some women from even considering starting a business, while systemic barriers mean that many women entrepreneurs stay confined to very small businesses often operating in the informal economy. This not only limits their ability to earn an income for themselves and their families but impedes them from realizing their full potential to contribute to socio-economic development, job creation and environmental stewardship. The ILO estimates that while 22 per cent of men's fruitful potential is underutilized, women's is as high as 50 per cent. The main objective of the study is analysis of various approaches related to women entrepreneurs. One of the governing trends in entrepreneurship in India is that men are leading in this field. But to be truly effective, new trends are emerging rapidly that more and more women entrepreneur is coming in this field. This study is descriptive research which includes surveys and fact finding enquiries on different approaches of women entrepreneurs in India. The major purpose of descriptive research is description of the state of affairs as it exists at present. So this study discussed about the present state of affairs of women entrepreneurship in India and emphasis on their various approaches. The main characteristic of this method is that the researcher has no control over the variables; he can only report what has happened or what is happening hence this study is centered towards approaches of Indian Women Entrepreneurs in India.

KEYWORDS
women entrepreneurship, women development.

INTRODUCTION

Women's entrepreneurship needs to be studied separately for two main reasons. The first reason is that women's entrepreneurship has been recognised during the last decade as an important untapped source of economic growth. Women entrepreneurs create new jobs for themselves and others and by being different also provide society with different solutions to management, organisation and business problems as well as to the exploitation of entrepreneurial opportunities. However, they still represent a minority of all entrepreneurs. Thus there exists a market failure discriminating against women's possibility to become entrepreneurs and their possibility to become successful entrepreneurs. This market failure needs to be addressed by policy makers so that the economic potential of this group can be fully utilized. While without a doubt the economic impact of women is substantial, we still lack a reliable picture describing in detail that specific impact. Recent efforts initiated by the OECD (1997, 2000) are responses to this lack of knowledge and have focused the attention of policy makers and researchers on this important topic. The second reason is that the topic of women in entrepreneurship has been largely neglected both in society in general and in the social sciences. Not only have women lower participation rates in entrepreneurship than men but they also generally choose to start and manage firms in different industries than men tend to do. The industries (primarily retail, education and other service industries) chosen by women are often perceived as being less important to economic development and growth than hightechnology and manufacturing. Furthermore, mainstream research, policies and programmes tend to be "men streamed" and too often do not take into account the specific needs of women entrepreneurs and would-be women entrepreneurs. As a consequence, equal opportunity between men and women from the perspective of entrepreneurship is still not a reality.

VARIOUS APPROACHES

Number of research studies related to development of Women Entrepreneurs have been conducted by economist's eminent social scientists at Macro level in India regional level and macro level. Main findings of their research studies have been discussed in the following paras:

This is a fact that the increasing presence of women in the business fields as entrepreneurs or business owners has changed socio economic and demographic characteristics of entrepreneurs. Women-owned businesses are playing socio economic and more active role in society and the economy, inspiring academics to focus on this interesting phenomenon. Skill up gradation and entrepreneurship has been considered as the backbone of economic development. It has been well established that the level of economic growth of a region, to a large extent, depends on the level of entrepreneurial activities in the region. Entrepreneurship development and training is, thus, one of the main elements for development of micro and small enterprises (MSEs), particularly, for the first generation entrepreneurs. In order to undertake this task on regular basis, the government has set up three nation-level Entrepreneurship Development Institutes (EDIs). These are the National Institute for Micro and small enterprises of Entrepreneurship (IIE), Enterprises (NI-MSME), Hyderabad; the Indian Institute of Entrepreneurship (IIE) Guwahati and National Institute of Entrepreneurship and small Business Development (NIESBUD), Noida Further, the government has been implementing Scheme for Assistance for strengthening of Training Infrastructure of Existing and New Entrepreneurship Development Institute (EDIs) National Skill Development Mission and National skill Development Policy. The national policy on skill development envisages to creating opportunities for all to acquire skills throughout life and especially for youth. (Singh A.K.2012)

It may be stated that there is a need to increase awareness and availability of technology to women entrepreneurs. It will also help them in solving the problem of provision of quality products, success stories of women entrepreneurs should be published in local and national newspaper and telecasted through television. (Anil Kumar 2004)

Presently there is wide gender inequality in all these countries but among them India has maximum while Singapore has minimum and similarly in accordance with there is development of women entrepreneurship. Suggestions which should be imposed upon are that country wide efforts against female feticides, gender inequality should be taken and more opportunities should be provided to the women for more participation in the entrepreneurial development activities. Plans should be in action not in action not in implementation. (Aparna Shukla 2012)

Independence brought promise of equality of opportunity in sphere to the Indian women and laws guaranteeing for their equal rights of participation in political process and equal opportunities and rights in education and employment were enacted. But unfortunately, the Government sponsored development activities have benefited only a small section of women. The large majority of them are still unaffected by changed and development activities have benefited only a small section of women i.e. the urban middle class women. The large majority of them are still unaffected by changed and development. (Awasthi.A.2012)

It was emphasized that the typical women entrepreneur like the independence associated with the entrepreneurial career, is a dreamer with high hopes and ambition. She has a positive approach to competition, is confident of her ability to deal with her problems and has a belief that hard work is a sure ingredient of success in entrepreneurial venture (Dhillon 1993). A women entrepreneur is an adult, innovative woman who undertakes to organizes, own and run an enterprise, especially a commercial one, often at personal financial risk. (Banerjee and Talukdar 1997)

It was depicted that there is a need of the economy to adopt a more inclusive process for the development of its labour force. Interventions are necessary in dissemination of information, confidence building measures, developing leadership and entrepreneurial skills of women in the cooperative societies. Development practiners should also try to help women overcome the existing resistance and should create awareness to recognize and value women's productive roles and

their contribution to sustainable economic development. Entrepreneurship through cooperative is an dieal vehicle for empowering the women. Cooperative are suitable mechanisms in enhancing the status of disadvantaged and marginalized women. (Bishrue. M.Dash2007)

It was revealed that micro credit and microfinance are not the answer to all the probles of poverty in developing counties, but it is indeed an inducer to a great many actions that can lead to a better quality of life for the low-income groups. Traditionally women have been marginalized. A high percentage of women are among the poorest of the poor. Microfinance activities can give rural women a means to climb out of their poverty. Microfinance could be solution to help them to extent their horizon and offer them social recognition and empowerment so that they can be included in the mainstream. (Usha kiran and M. Srivastava2008)

It attempted to discuss various roles of female entrepreneurship in the context of economic development. It concluded that female entrepreneurship has been playing a pivotal role in the restructuring of the economic system. Women are followers of development process in the sense, their efforts succeed economic development. (J. Kumar and H. Bhatia 2010)

Lijat Papad is an organization set up in 1959 by a group of women who started with rolling pappads, with borrowings of eighty rupees. These women, also called Bens of sisters, had no formal education but felt that they could do something with the free time that they had on hands after finishing their family chores. Their commitment and perseverance has helped them to achieve success. Lijjat is not only helping the members contributes to the family income but also empowering them. Valuing people and understating their problems has created for Lijjat a sound and sustainable business model, it is also noteworthy for its commitment to improving the quality of the lives of its members. (K. Sen and G.M Sanjeev 2009)

It was revealed that since the 21st century, the status of women in India has been changing as a result of growing industrialization and urbanization, spasmodic mobility and social legislations. Over the years more and more women are going in for higher education-technical and professional and their proportion in the workforce has also increased. The problems and constrains experienced by women entrepreneurs have resulted in restricting and inhabiting the expansion of women entrepreneurs in the major barriers encountered by women entrepreneurs are lack of confidence, lack of working capital and socio cultural barriers etc. (K. Bharti and J.J Parikh 2005)

It was highlighted that with the adoption of empowerment strategy towards women's development, the combined efforts of the government and non-government organizations have created an ambience of concern for women and a heightened sense of gender perspectives. The governmental interventions in the empower-ment of women are operationalized largely through conceived and implemented by the governmental departments directly. Besides the initiative developed by the non-governmental organizations are very rich and diverse and they have often demonstrated the success of alternative models of empowerment. Thus non-governmental organization have got very wide scope in uplifting the status of women. (M. R. Pravin, 2012)

India is a male dominated society and women are assumed to be economically as well as socially dependent on male members. The absolute dependence seems to be diluted among the high middle class women as they are becoming more aware of personal needs and demanding greater equality. Women entrepreneurs faced lots of problems at start-up as well as operating stage like, non availability of finance, restricted mobility freedom and having to perform dual role one at home and other at work. Technological advancement and information technology explosion have reduced the problem of women entrepreneurs. (Manoj Trivedi 2012)

It was revealed that entrepreneurship among women, no doubt improves the wealth of the nation in general and of the family in particular. Women today are more willing to take up activities that were once considered the preserve of men, and have proved that they are second to no one with respect to contribution to the growth of the economy. Women entrepreneurship must be molded properly with entrepreneurial traits and skills to meet the changes in trends, challenges global markets and also be competent enough to sustain and strive for excellence in the entrepreneurial arena. (M. Sachin, 2012)

A good idea is, very women can write down all the reasons why she become stressed in her job and how she could use her strengths to reduce stress and enhance her performance. She can make a short list of priorities and stick to them which will lead her to get organized, ticketing off chores that have got to be completed. A woman must remember to keep herself centered to so that she does not feel overcome. By guilt when she says 'no' to someone asking an inconvenient favour. (N. Brindha and P. Palanivel, 2008)

The study conducted Shukla, is basically based on to seek those factors which may be stated as the boosting and motivating facts and problematic factors (hin-drance) for women entrepreneurship. Study finds that leading attitude, determination and risk taking attitude are the major areas and factors which may be stated as the motivational factors for the growth of women entrepreneurship. Furthermore, lack of financial resources and risk aversion are the importance hurdles in the way of success of women entrepreneurship. The suggestion over here may be given to the government because the ultimate responsible party for the expan-sion or contraction of any sector in one country is the government of that country. He suggested that government should take some serious steps and introduce some schemes for the development of women entrepreneurship. It should concentrate on the implementation part also of those schemes. (O. P. Shukla2012)

The existing basic policy intervention packages in India are designed to reduce the effects of gender discrimination in factor markets-mainly financial. While this can help to create a pro-growth environment, the complexly of factors that limit growth in women-run firms calls for a discriminating approach to different type of women entrepreneurs. The significant differences between how various types of women entrepreneurs view growth, policy interventions should need to be better targeted if we wish to see faster growing women-run firms. (P. Palanivelu and H. Balakrishnan 2006)

Agricultural cooperatives are agencies that hold enormous potential for the development of women and more particularly the rural women. Rural women are actively involved in the process of food production, processing and marketing. They often lack the legal status that prohibits them to have access to credit, educa-tion and technology. Cooperative Institution can help accelerate the process of development and participation of women in their organization and business acti-vates. It concluded that, the problems faced by women entrepreneurs in the country emanate from a multitude of sources and are manifold. Entrepreneurship is not a 'bed of roses' to the women. Their task has become more tedious and full of challenges since they have to encounter public prejudices and criticism. Women face certain problems not as an entrepreneur but as women. (Prakash 2000)

It was further revealed about factors that limit factors that limit the representation of women in the management and decision-making process. These often are: low level of literacy, cultural and religious roadblocks, legal limitations in respect of property rights, inadequate educational and developmental opportunities, limited economic opportunities in respect of marketing of their products exploitation in various forms, lack of legal safeguards, etc. It has also been found that women can ensure their economic and social security if these were able to organize themselves and work in groups. In order to enable women, especially in the rural areas, it is necessary that Cooperative Institutions and other Non-Governmental Organization (NGOs) come forwarded to provide women with the member-ship of such institutions, encou9rage them to undergo a variety of vocational training programmers, encourage them to participate in family welfare and better health programmes, and institute for them appropriate marketing and guidance facilities.

It was depicted that beauty parlor industry has emerged as crucial component not only in India's services but also in providing employment, income and good market for large number of women entrepreneurs. The multifaceted and multi-dimensional programs offered under the auspicious of Central State entrepreneur-ship in beauty parlour industry has enabled women to enhance their status both socially and economically. The study considered prime motivators and motivating factors, investment, demand for beauty product/usage, family income and hours of work, among others to gauge the determinants. The study concluded that Chennai has a big beauty parlour sector to sustain women entrepreneurs and to empower them to 'celestial height' so as to contribute their might to the economy. (R. B. Subramaniyam, 2009)

It was emphasized that entrepreneurship among women no women today are more willing take up economic activities that were once considered the preserve of men, and have proved that they are second to none with respect to contribution to the economy. But women in Indian society have been facing several problems from different direction. Hence, provisions of necessary support in production, financing and marketing and improvement the socio-cultural environment are of utmost importance to overcome those problem. (S. M. Krishna, 2009)

It was revealed that working-women in Kashmir has more family obligations and the extent of family obligations is positively related to role conflict possession, education and age of working women are significant contributor to role conflict. Similarly, age of children unsatisfactory arrangement for childcare while they work, the inflexible attitude of in-laws and lack of positive support from the husband also create conditions of conflict among the working women. (Shafi 2002)

It was depicted that revealed that in todays's global economy, India corporations need talent in order to be competitive. Generally, women as managers are underutilized in corporate India. To advance women in managerial roles, support by top management is essential. Promoting diverse management practices and

opening doors to women in management-through proactive human resource policies and programs-is one way for Indian organizations to expand their talent pool and ultimately their leadership pipeline. As highlighted by the Indian women professionals interviewed of this article specific success factors a good education, mentoring, family support, strong communications skills and life long learning are essential for india women managers today, while traditional Indian cultural view points are slow to change (and not all women want a carrier in management), positive change for woman in the business world in India is moving forwarded. (S. Priya2010)

Women participation in the field of entrepreneurship has increased considerable in the post reform period. There has been a significant change in the social cultural and economic aspects of the society after the economic reforms. The mindset of women has changed a lot with the increased levels of education, and employment opportunities that were made available in the society. The support and cooperation provided by the society members, government support granting various schemes, and establishment of various associations helped women to develop their entrepreneurial activities. (Shivani Kapoor2012)

In India, women entrepreneurs represent groups of women who have broken away from the beaten track and are exploring new vistas of economic participation. Their task has been full of challenges. They have had to encounter prejudices and criticism. Family opposition and social constraints had to be overcome before establishing themselves as independent entrepreneurs. Women entrepreneur is a confident, innovative and creative women capable of achieving economic independence individually or collaboration, generates employment opportunities for others through initiating, establishing and running an enterprise by keeping pace with her personal family and social life. (Singh 1992)

It was ensured that women are unparallel in home-management and domestic budgeting. Development of their management skills of cooperatives and other community activities will be effective. Active participation of women in Cooperative Management Development Programmes will help their empowerment in society. It will also lead to participation by greater number of women in the movement, besides safeguarding the interest of the women interest. (Singh2002)

It was emphasized that entrepreneurship among women, no doubt improves the wealth of the nation in general and o0f the family in particular, Women today are more willing to take up activities that were once considered the preserve of men, and have proved that they are second to no one with respect of contribution to the growth of the economy. Women entrepreneurship must be molded properly with entrepreneurial traits and skills to meet the changes in trends, challenges global markets and also be competent enough to sustain and strive for excellence in the entrepreneurial arena. (Subhash Jain2012)

It was depicted that as highly qualified women in these critical emerging markets struggle to balance the demands of career, children and culture, employers have an unprecedented opportunity to help them fully realize their potential. To do so, companies will have to gain a deeper understanding of the ambitions and needs of their top female talent, and alter their policies accordingly. But the lessons learned in attracting, sustaining and retaining the best and brightest women can only enhance and strengthen an orgainization's operations worldwide. Helping these talented grown is the surest route to continues growth, now and in the future. (S. A. Hewleti and V.N Desai 2011)

The changing world economic scenario in the recent years provded a favorable atmosphere for globalization economic participation of female. As more and more countries are turning towards privatization, liberalization and deregulation, better people-friendly markets are being created which in turn opens the doors for greater entrepreneurial activities. As a result, the female participation in the labour force in general and in self employment in particular has been on the rise, the growth of sectors such as services and trade has further widened the options for female for such participation. The specific traits of female such as their communicative skills, networking ability endurance and perseverance as well as willingness to accept market challenges can be helpful in encouraging female entrepreneurship in Indian economy.

There are number of aspects in the empowerment process which indicate the level of women empowerment viz, welfare access awareness, participation and control and these level have been taken and discussed through relevant variables. Under the level of 'welfare as far as living conditions of the respondents are concerned, with the exception of a small proportion of women the majority of the respondent do enjoy all the basic necessary requirements. And women's entry into productive activity enables them to overcome any form of violence within the family/society, either individually or by seeking the help of other with whom they work.

CONCLUSION

Thus, it is clear that by and large, comprehensive and focused research on women entrepreneurs is scarce and scattered with only a few studies of a view limited nature. Thus there is a wide scope for further research to investigate issues intensively pertaining to women entrepreneurs at regional level, state level and also national level where development changes have taken place very rapidly and the policies pertaining to globalization privatization liberalization towards women entrepreneurs have been implemented. It concluded that female entrepreneurship has been playing a pivotal role in the restructuring of the economic system The large majority of them are still unaffected by changed and development.

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MICRO FINANCE INITIATIVES IN RURAL AREA: WITH SPECIAL REFERENCE TO SBI OF DAHANU ROAD BRANCH

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ABSTRACT

The Present Study Focuses on Micro Finance Initiatives by banks in rural area as Banking Industry is one of fastest growing sectors in the world. Micro Finance is the provision of financial services to the poor. These individual lack collateral, steady employment and verifiable credit history and therefore cannot meet even the most minimum qualifications to gain access to traditional credit. The amount is in small denominations and the focus is to lend the deprived section of the society. Over the past decade some micro finance institutions have started developing a range of product to meet the need of other clients including pensioners and salaried workers. Micro finance is the extension of very small loans to the unemployed, to poor entrepreneurs and to others living in poverty that is not considered bankable. Due to the success of micro finance, many in the traditional banking industry have begun to realize that these finance borrowers should more correctly be categorized as pre-bankable, thus micro finance is increasingly gaining credibility in the main stream. The aspect of micro finance that has contributed to its success is its credit plus approach, where the focus has not only been on providing adequate and timely credit to low income groups, but to integrate it with the other developmental activities such as community organizing and development, leadership, training skills and entrepreneurship management, financial management etc. These loans are for short periods that are repaid quickly and made available at interest rates that keep the program me sustainable and viable.

KEYWORDS

micro finance initiatives, rural area.

INTRODUCTION

Micro finances are often defined as financial services for poor and low-income clients. In practice the term is often used more narrowly to refer to loans and other services from providers that identify themselves as micro financers. These institutions commonly tend to use new methods developed over the last 30 years to deliver very small loans to unsalaried borrowers, taking little or no collateral. Dahanu is a coastal city having municipal council. It is located in Thane district in the western state of Maharashtra. The name "Dahanu Gaon" originates from the word "Dhenu Gram" meaning the village of cows. This is because the people in Dahanu were known to own a lot of cattle, particularly cows. As Dahanu is situated near the coast and as it is an upcoming economic hub between Surat and Mumbai, the present research will be highly beneficial to a number of small entrepreneurs, wadi owners, adivasis, fishermen, small farmers who need micro finances for maintaining stability in their business. As this facility is granted to all the needy groups who are below the poverty line and are in a need for finance to start their own business, the research will help small industrial units owners manufacturing balloon, spoon, and textile industries located in Dahanu and its vicinity.

IMPORTANCE OF THE STUDY

The research would be helpful to the small entrepreneurs as they lack information about micro finances. It would help them to know various schemes and grants provided by the financial institutions relating to micro finance. As it is helpful to the weaker sections of the society; it can be used as a tool for the eradication of poverty. It can also be useful to the other researchers who aspire to work on micro finance. The findings of the research will also be helpful in highlighting the weaknesses in the present policy framework and will make suggestions for the revamping of the system.

REVIEW OF LITERATURE

Despite last year's global financial meltdown, the microfinance industry has continued to boom in India because of an influx of private equity and bank funding, according to a study. Micro lenders recorded a 60% increase in clients in India, to 22.6 million in the year ended March 31, 2009, from 14.1 million the previous year, according to a report from Access Development Services, a New Delhi-based nonprofit serving the microfinance industry. Micro lenders lend small amounts of money to groups of poor people, mainly to help foster entrepreneurship and trade.

A survey conducted by **Weiss and Montgomery in 2004** among 518 microfinance institutions in Africa, Latin America, Eastern Europe and Asia reveal that the majority of the microfinance borrowers are served by institutions in South and East Asia. The largest microfinance institutions are found in countries such as Bangladesh, India, Indonesia and Thailand. Further, a **Rural Finance Access Survey 2003**, conducted by the World Bank and NCAER, revealed that 79 per cent of the rural households have no access to credit from formal sources (Basu, 2005).

Littlefield, Morduch and Hashemi (2003), Simanowitz and Brody (2004) have commented on the critical role of microfinance in achieving the Millennium Development Goals (MDGs). They state that microfinance is a key strategy in reaching the MDGs and in building global financial system that meet the needs of the poorest people.

Abhijit V. Banerjee and Esther Duflo; Abdul Latif Jameel Poverty Action Lab, MIT October 2006 used survey data from 13 countries to document the economic lives of the poor (those living on less than $2 dollar per day per capita at purchasing power parity) or the extremely poor (those living on less than $1 dollar per day). We describe their patterns of consumption and income generation as well as their access to markets and publicly provided infrastructure. The paper concludes with a discussion of some apparent anomalous choices.

OBJECTIVES OF STUDY

1. To understand the nature and scope of micro-finance and its significance from economic point of view.
2. To evaluate various schemes of banks for small entrepreneurs and gauge the extent to which these schemes have benefited these entrepreneurs.
3. To examine the responses of beneficiaries towards these schemes and analyse the problems faced by them in obtaining these finances.
4. To make suggestions and recommendations related to micro finances.

RESEARCH METHODOLOGY

The Research Paper shall be considered as a pilot study to critically evaluate the role of micro finance in meeting the requirements of small entrepreneurs and other needy groups with a special reference to a public sector bank, i.e. State Bank of India (SBI). The research will be confined to the Dahanu branch of SBI. The branch has 350 operating accounts under micro-finance facility with the financial assistance of Rs 30 to 35 lakhs on an average, with an average disbursement of Rs. 20 lakhs. Primary data is collected through views and opinions of beneficiaries and bank officials & secondary data is collected through published literatures.

ANALYSIS

TABLE 1: MICRO-CREDIT DISBURSEMENT TO DIFFERENT CATEGORIES OF BORROWERS BY THE DAHANU BRANCH OF SBI FROM 2012 TO 2014

	2013	2014	2015
Fishermen	3 lakhs	1.5 lakhs	3 lakhs
Small & Marginal farmers	10 lakhs	2 lakhs	3 lakhs
Self Help Groups (SGHs)	3 lakhs	3.5 lakhs	4 lakhs
Government Sponsored Schemes	2 lakhs	1 lakhs	2 lakhs
Total	**18 lakhs**	**8 lakhs**	**12 lakhs**

SELF HELP GROUPS (SHGs)

Self-help groups (SHGs) play today a major role in poverty alleviation in rural India. A growing number of poor people (mostly women) in various parts of India are members of SHGs and actively engage in savings and credit as well as in other activities (income generation, natural resource management, literacy, child care and nutrition, etc). The total number of SHGs maintaining savings A/c in bank is 45. The total amount disbursed is 45 lakhs. The minimum amount of loan granted is Rs 5 thousand & maximum is up to Rs 10 lakhs. The total number of Bachat gats is 45 & loans granted under government schemes is 21. The total number of members in SHGs are 10 to 12.

FACTS & FINDINGS

TABLE 2: DISTRIBUTION OF RESPONDENTS AS PER THEIR ANNUAL INCOME

Sr. No.	Income Level	Number of Responses	Percentage
1.	**Rs. 0 – Rs. 6000**	14	20
2.	**Rs. 6000 – Rs. 12000**	22	31
3.	**Rs. 12000 – Rs. 15000**	26	38
4.	**Above Rs. 15000**	8	11
	Total	70	100

FIG. 1: DISTRIBUTION OF RESPONDENTS AS PER THEIR INCOME (Rs.)
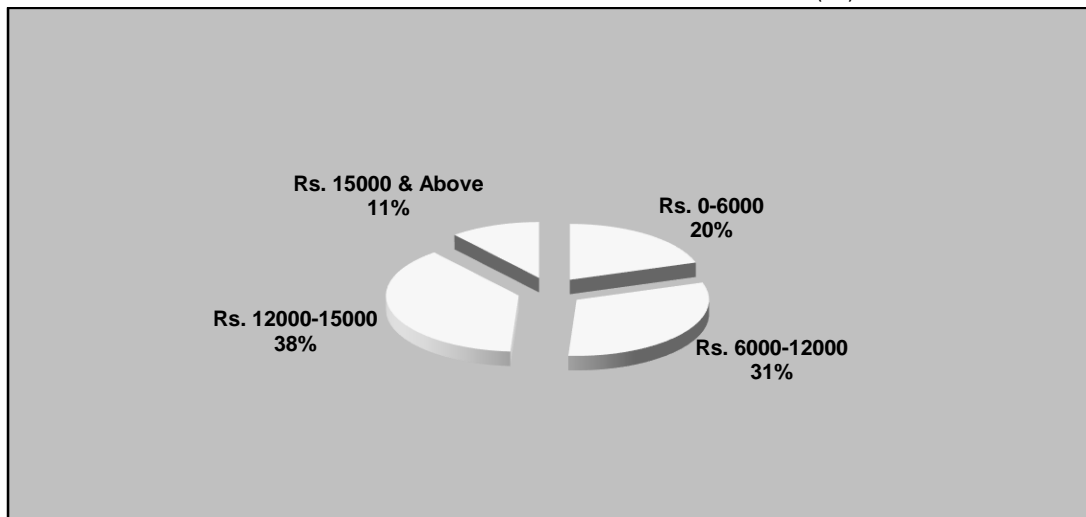
TABLE 3: DISTRIBUTION OF RESPONDENTS BY PROFESSION

Sr. No.	Profession	Number of Responses	Percentage
1.	**Agriculture**	24	34
2.	**Fishing**	12	17
3.	**Self Employed**	23	33
4.	**Bamboo Making**	8	12
5.	**Others**	3	4
	Total	70	100

Source: Field Survey.

FIG. 2: DISTRIBUTION OF RESPONDENTS BY PROFESSION
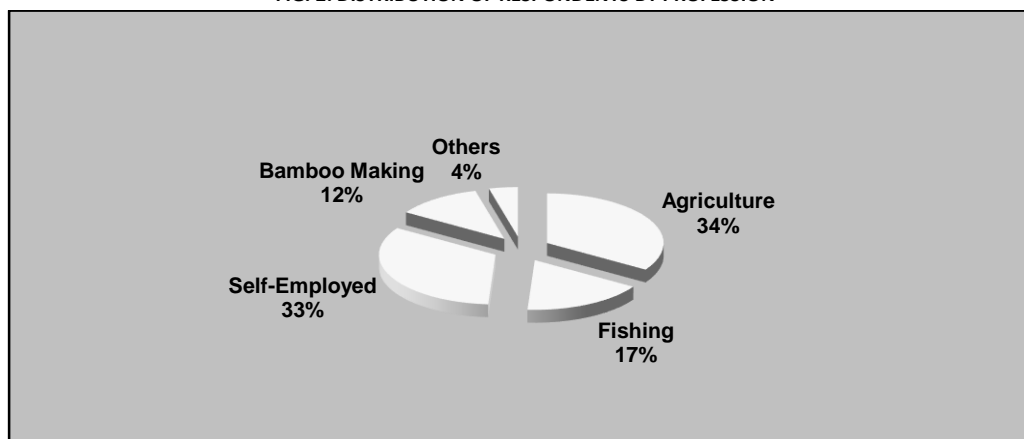
The researcher for the purpose of the study has deliberately selected those respondents who had availed micro-finance facility from the SBI branch at Dahanu. Hence, all the respondents who were interviewed were the customers of the bank since they have taken loans under various micro-finance schemes of the bank. Interestingly, many of them approached bank through local SHGs in the region.

CONCLUSION

Micro Finance facility provided by SBI is highly beneficial to all the needy people in Dahanu area as this is the only bank providing this facility here. Most of the loan accounts under the scheme were small in size and were for the limited period. Almost all the respondents unanimously voiced that they get the required support and assistance from SHGs as and when required in availing finance from bank. On the whole respondents were satisfied with micro-finance initiatives of SBI, with majority of the respondents rating it to be more than satisfactory. Those who were not satisfied mainly complained about inadequacy of finance and short repayment period. Among those dissatisfied with the procedures for obtaining loan, were the persons who were not having basic documents needed for availing micro-finance facility.

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AN ANALYSIS OF PRADHAN MANTRI MUDRA YOJANA (PMMY) BENEFICIARIES OF MICRO AND SMALL ENTERPRISES (MSES) IN INDIA

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ABSTRACT

There is a huge opportunity for micro and small enterprise in India. And also there is a great potential to start micro units. But there is a lack of finance for start-ups, NSSO survey (2013) reports that 4% of 57.7 million MSEs are unable to get financial support from regular banks. More over for start-ups there is great difficulty in getting financial support from financial institutions. MSEs need adequate and easy access of financial services. Micro Units Development and Refinance Agency Bank (MUDRA Bank) has been created with the adage of "Funding the Informal by Funding the Unfunded", by making Micro, Small business units to be string instruments for GDP growth and also employment generation. It lends loan to non- form income generating enterprises in manufacture, trading and services whose credit needs are below ₹10 lakhs. So far 1500 crors is refinanced to Micro and Small Enterprises (MSEs) under MUDRA scheme through private and public banks. The aim of this paper is to focus on PMMY scheme and progress of MUDRA scheme. And the scope for MUDRA scheme in Indian MSEs.

KEYWORDS

MSEs, PMMY, MUDRA schemes, MFIs, refinance.

1.   INTRODUCTION

Micro and Small Enterprises (MSEs) are now the backbone of Indian economy. It contributes major portion to the economic growth. These businesses help to grow the economy of the country. Hence small entrepreneurs when is helped to grow helps the economy to grow along with them. Unfortunately, 4% of 57.7 million MSEs are unable to get finance from regular banks (NSSO Survey of 2013). Micro Units Development and Refinance Agency Bank (MUDRA Bank) is a public sector financial institution was set up under the Pradhan Mantri MUDRA Yojana (PMMY) scheme. This scheme is launched to the development of small enterprises and where the normal banks are unable to reach. The reason for this scheme to get into action is that the current remote entrepreneurs are unable to get money from the institution. These people get their finance from money lenders at a very high interest rate and their creditworthiness id very low, which in return effects the growth of the micro business.

2.   SUMMARY OF MUDRA SCHEME

Pradhan Mantri MUDRA Yojana scheme was formally launched on 8th April 2015. This bank is set up to provide credit to micro unit. It provides loans at low rates to Micro Finance Institutions (MFIs) and Non-Banking Financial Institutions which then provide credit to MSMEs. MUDRA Mission is to create an inclusive, sustainable and value based entrepreneurial culture, in collaboration with our partner institutions in achieving economic success and financial security.

The borrower, who wish to avail assistance under PMMY can approach scheduled commercial banks (public/ private), Regional Rural Bank (RRBs), Scheduled Urban Co-operative banks, State co- operative Banks and Micro Finance Institution Viz., NBFCs, MFIs, Societies, Trusts in their region for loan. It lends loan to non- form income generating enterprises in manufacture, trading and services whose credit needs are below ₹10 lakhs. All loans can be covered under refinance credit enhancement products of MUDRA.

So far, MUDRA has enrolled 27 public sector banks, 17 private sector banks, 27 regional rural banks and 25 Micro Finance Institutions (MFIs) as partner institutions for channelizing assistance to the ultimate borrower. MUDRA identifies 97 nodal offices at various SIDBI regional offices/ branches offices to act as 'first contact persons' for MUDRA and also its headquarters is at New Delhi.

MUDRA offers refinance for micro units to commercial banks, NBFCs, RRBs, Cooperate Banks and MFIs. So that these institutions then provide finance to small retailers/ shopkeepers, womenpreneurs, manufacturing and service enterprises in rural, semi- urban and urban areas, fruit and vegetable vendors and artisans. Apart from this MUDRA offers development and financial literacy support.

Schemes Offered by MUDRA Bank

Under the aegis of Pradhan Mantri MUDRA Yojana (PMMY), MUDRA has categorised as micro business units as the stage of growth/development and funding needs. Three categories were created for this purpose viz., Shishu, Kishor and Tarun Category. As the name suggested the first category Shishu (Child) is for start ups. It covers loan up to ₹50,000 (US$740) with the interest rate of 10% to 12%. The second category Kishore is for mid-level organization and it covers above ₹50,000 and up to ₹5,00,000 (US$7,400) with the interest rate of 14% to 17%. The third category of scheme Tarun is for expansion, all small business which have been set up and established will fall into this category. There may be some financial requirements for the betterment of business and it covers above ₹5,00,000 and up to ₹10,00,000 (US$15,000), it is also an unsecured Loan and its rate of interest is high and starts from 16% and very bank to bank.

Procedures to apply loan MUDRA scheme

To take loan from Mudra Bank, as a first step proposed business plan should be given. Then should check on which category the business lies in, such as, Shishu, Kishor or Tarun. Once category the business lays is selected then should contact nearest Public or Private Bank where PMMY scheme is applied to get loan. Once the loan is sanctioned the borrower will get MUDRA card, this is like a debit/credit card. This card can be used to buy business raw material etc. MUDRA Card's Limit will be 10% of business loan (subject to Rs.10000 maximum).

MUDRA is not a bank

MUDRA Bank is a government financing scheme to provide business loan to new small businesses in India. It is not a separate bank to get business loans, the candidate has to contact the nearest Public/ Private sector bank to get services under this scheme. MUDRA will be operating as a refinancing institution through State / Regional level intermediaries. MUDRA's delivery channel is conceived to be through the route of refinance primarily to NBFCs / MFIs, besides other intermediaries including Banks, Primary Lending Institutions etc. The rate of interest will be fixed by the institutions time to time based on guidelines from the RBI.

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3. AIM AND BENEFITS OF PMMY

The aim is to provide financial assistance to the "unfunded" small entrepreneurs who provide employment to a large number of people. MUDRA Vision is to be an integrated financial and support services provider par excellence benchmarked with global best practices and standards for the bottom of the pyramid universe for their comprehensive economic and social development.

Priority is to provide employment and made a case for encouraging self employment and the small and medium enterprises. MUDRA Bank is aimed at "funding the unfunded", providing low cost funding for MFI (Micro Finance Institutes). Also gives priority for SC/STs in Lending. Hence, increases the liquidity and access for funds for small scale business by combining their integrity with capital, it would become the key to their success. Best practice of SHG Bank Linkage programme, NBFCs, MFIs, NGOs (trust and societies) and most importantly MUDRA bank are key players of MFI sectors to empower MSEs.

MUDRA bank is an apex refinancer, and it is architecture indigenously conceived for Indian context. This scheme is an inclusion of Last Mile Financiers a game changing idea and this helps to expand access to finance for micro enterprises and it provides lower cost of finance and credit plus approach. Through this in Indian MSEs have mass entrepreneurship development and employment generation and it contributes more to GDP Growth. It emphasis on cash flow based lending and not security based lending. Collateral securities, etc. shall be avoided and repayment obligations shall be flexible and framed keeping in view the business cash flows of the entrepreneur.

4. STATUS OF MUDRA SCHEME: STATE WISE

TABLE 1: PRADHAN MANTRI MUDRA YOJANA (Progress as on 18/03/2016) [Amount Rs. in Crore]

	Shishu (Loans up to Rs. 50,000)			Kishore (Loans from Rs. 50,001 to Rs. 5.00 Lakh)			Tarun (Loans from Rs. 5.00 to Rs. 10.00 Lakh)			Total		
	No of Sanctions	Sanctioned Amt	Disbursement Amt	No of Sanctions	Sanctioned Amt	Disbursement Amt	No of Sanctions	Sanctioned Amt	Disbursement Amt	No of Sanctions	Sanctioned Amt	Disbursement Amt
Andhra Pradesh	525193	1278.61	1188.54	184337	3004.64	2829.62	12068	993.25	907.68	721598	5276.5	4925.84
Arunachal Pradesh	3392	8.49	8.42	865	26.01	25.45	410	33.61	32.97	4667	68.11	66.84
Assam	429643	865.14	853.29	28329	588.52	546.96	4106	312.88	301.59	462078	1766.54	1701.84
Bihar	2111266	3869.35	3798.22	121834	2220.13	2064.26	10702	857.94	794.8	2243802	6947.42	6657.28
Chandigarh	16462	29.81	28.77	3014	71.85	68.57	1181	92.88	88.81	20657	194.54	186.15
Chhattisgarh	466913	967.93	936.75	24560	490.23	438.93	4858	400.83	374.86	496331	1858.99	1750.54
Dadra and Nagar Haveli	807	1.78	1.62	231	6.67	6.39	148	11.11	11.09	1186	19.56	19.1
Delhi	321675	619.97	598.85	32407	929.22	889.89	14602	1070.12	1019.92	368684	2619.31	2508.66
Goa	22106	59.02	54.36	7026	152.61	142.64	1572	123.71	114.1	30704	335.34	311.1
Gujarat	841108	1865.09	1831.79	77925	1715.13	1661.59	21628	1617.95	1563.44	940661	5198.17	5056.82
Haryana	594339	1220.91	1194.32	33788	739.75	691.65	10965	858.31	804.71	639092	2818.97	2690.68
Himachal Pradesh	54590	105.02	99.54	19523	468.06	448.43	4162	339.12	327.06	78275	912.2	875.03
Jammu and Kashmir	17425	59.35	57.77	31834	700.96	681.79	4378	330.9	322.52	53637	1091.21	1062.08
Jharkhand	754928	1342.83	1311.27	33913	748.9	704.31	6359	499.17	467.09	795200	2590.9	2482.67
Karnataka	3499590	7197.97	7082.63	245870	4587.52	4387.13	36667	2501.5	2333.31	3782127	14286.99	13803.07
Kerala	648934	1295.9	1263.65	97746	2039.52	1985.84	12563	991.19	943.24	759243	4326.61	4192.73
Madhya Pradesh	1971497	3748.72	3672.29	78098	1674.71	1516.98	17345	1380.18	1269.49	2066940	6803.61	6458.76
Maharashtra	2841247	5592.53	5504.99	139635	3246.76	3064.36	36338	2913.3	2754.28	3017220	11752.59	11323.63
Manipur	20231	39.32	38.75	2776	57.99	54.57	327	23.89	22.19	23334	121.2	115.51
Meghalaya	15351	39.81	39.11	2805	68.9	67.39	522	40.79	38.96	18678	149.5	145.46
Mizoram	5251	19.82	18.83	1580	32.93	27.57	265	20.92	20.2	7096	73.67	66.6
Nagaland	3283	11.12	10.02	1313	36.53	34.5	387	29.81	25.06	4983	77.46	69.58
Odisha	2001102	3329.62	3280.93	48586	922.56	862.14	9787	725.78	645.72	2059475	4977.96	4788.79
Pondicherry	71309	141.13	138.24	6937	120.27	110.38	634	54.62	46.48	78880	316.02	295.1
Punjab	545414	1122.72	1103.71	40051	941.13	908.79	14651	1147.26	1105.74	600116	3211.11	3118.24
Rajasthan	961307	1832.86	1784.02	60383	1404.28	1306.86	20717	1633.34	1533.99	1042407	4870.48	4624.87
Sikkim	8145	13.48	12.84	1032	24.51	22.41	221	17.16	15.22	9398	55.15	50.47
Tamil Nadu	3905305	7223.68	6733	207835	4687.15	3616.13	25164	2211.32	1873.79	4138304	14122.15	12222.92
Telangana	246319	590.13	562.49	91194	1911.87	1819.85	10881	838.95	796.63	348394	3340.95	3178.97
Tripura	55248	130.45	128.3	6268	127.54	111.67	732	58.35	53.16	62248	316.34	293.13
Uttar Pradesh	2860236	5281.59	5157.12	147015	3135.76	2971.72	31047	2476.43	2322.04	3038298	10893.78	10450.88
Uttarakhand	271076	559.02	551.13	23596	558.94	538.37	4683	365.27	347.62	299355	1483.23	1437.12
West Bengal	2342864	3687.71	3641.99	108843	2169.9	2002.93	19148	1358.72	1281.16	2470855	7216.33	6926.08

Source: MUDRA website

The above table states that Tamil Nadu received highest numbers of sanctions under Shishu category, followed by Karnataka, Uttar Pradesh, Maharashtra, West Bengal, Bihar, Odisha, Madhya Pradesh but Dadra and Nagar Haveli is received lowest. Whereas in case of sanctioned amount, Meghalaya is the first state received highest followed by Andhra Pradesh, Delhi, Arunachal Pradesh and Maharashtra, but Odisha is lowest. For in case of disbursement of amount Andhra Pradesh receives highest followed by Meghalaya, Delhi, Arunachal Pradesh, but once again Odisha had lowest performer even in disbursement of amount.

Andhra Pradesh is the first place to receive highest numbers of sanctions under Kishore Category followed by Meghalaya, Tamil Nadu, Arunachal Pradesh, Delhi, Maharashtra and Dadra and Nagar Haveli but Odisha is least benefited from this. Whereas in case of sanctioned amount, Meghalaya is the first state received highest followed by Andhra Pradesh, Delhi, Arunachal Pradesh, and Tamil Nadu, but Odisha Remain least again. For in case of disbursement of amount Andhra Pradesh receives highest followed by Meghalaya, Delhi, Arunachal Pradesh Tamil Nadu, but once again Odisha had lowest performer even in disbursement of amount.

Andhra Pradesh received highest numbers of sanctions under Tarun Category followed by Delhi, Arunachal Pradesh, Meghalaya, Gujarat, Jammu and Kashmir and Dadra and Nagar Haveli but Odisha is least benefited from this. Whereas in case of sanctioned amount, Delhi is the first state received highest, followed by Andhra Pradesh, Arunachal Pradesh Meghalaya, but Odisha is lowest. For in case of disbursement of amount Delhi receives highest followed by Andhra Pradesh, Arunachal Pradesh, but again Odisha had lowest performer even in disbursement of amount.

Overall Andhra Pradesh, Haryana, Delhi, Assam, Dadra and Nagar Haveli, Bihar, Arunachal Pradesh, Tamil Nadu, Jharkhand, Madhya Pradesh are highest in number of sanctions under Shishu scheme and Rajasthan is lowest in this sense. In case of sanctioned amount Andhra Pradesh, Meghalaya, Delhi, Arunachal Pradesh is

highest receiver and for disbursement of amount Andhra Pradesh, Meghalaya, Delhi, Arunachal Pradesh is highest. And again Odisha is lower performer in both sanctioned amount and disbursement of amount.

5. CONCLUSION

MUDRA has been created with the adage of "Funding the Informal by Funding the Unfunded", by making micro, small business units to be string instruments for GDP growth and also employment generation. A typical aim is to help in improving the quality of life of these entrepreneurs but will also contribute substantially to job creation in the economy leading to income distribution and poverty alleviation. By this scheme youth entrepreneurs and women entrepreneurs shall be encouraged and special schemes shall be designed for such entrepreneurs.

Very disadvantage is small entrepreneurs lacking with the sufficient financial source and they require financial assistance to perform in the field of enterprises, though they are skilful in entrepreneurship they are lacking with the finance for investment so in that sense MUDRA Bank came forward to give financial assistant, but that is very minimal and insufficient for any entrepreneur to get in to the entrepreneurship. Highest interest rates will de-motivate the entrepreneur to avail the service. Entrepreneurs are not finding anything difference among MUDRA facilities and other existing facilities in terms of availing interest rates and repayment procedures of loan. Hence, it helps in a very smaller extent than expecting and this scheme never meets the existing demands of the entrepreneurs.

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A STUDY ON RISK-RETURN RELATIONSHIP OF TOP 10 COMPANIES FROM FAST MOVING CONSUMER GOODS (FMCG) AND PHARMACEUTICALS SECTOR LISTED AT NSE INDIA

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ABSTRACT
Fast Moving Consumer Goods and Pharmaceutical industry are coming under the category of defensive sectors. FMCG is one of the fastest developing sectors and which is the 4th largest sector in India. Household care, Personal care, Food &Beverages are the main subdivisions of FMCG sectors. Pharmaceutical sector is dominated in the market by branded generics and it also fragmented in organised & unorganised segments. As we know stock market investment is characterised by Risk and returns. FMCG &Pharmaceutical Sector provides the stable rate of return as it is the defensive category. The top 10 companies from both these sectors listed at NSE also selected for the risk return analysis. This paper gives the descriptive analysis of risk-returns of these companies. Thus the paper attempts to help the long term investors to take a suitable decision before investing in the stock market. This paper studies the risk- return relationship of top ten selected companies from FMCG and Pharmaceutical Industry and trying to prove that the returns and risks are related.

KEYWORDS
return, risk, alpha, beta, capital yield, CAPM.

INTRODUCTION
Investors expect returns from their investment. Especially stock market investors have a bad notion of getting abnormal return and they think that stock market works on the basis of speculation. Most of them are expecting more than average return without taking risk. But actual scenario is entirely difficult from their illusions. Risk-Return analysis gives the investors a clear view of their returns and risk underlying the investments.
Returns are the gains or the losses from a security or a stock for a period usually in percentage. Risk is the deviations of actual return from their expectations of returns. The return is in the form of capital yield. But the realised return shows the deviations. Risk comprises of two components systematic and unsystematic. Systematic risk is caused by external factors to the particular company and uncontrollable by the company. It affects the whole market where as unsystematic risk is particular to company which the factors are specific to that company.
The risk-return analysis show the detailed analysis of returns from the past six financial years' top NSE listed companies in FMCG and Pharmaceutical sector based on the past historical data.

REVIEW OF LITERATURE
Dr. Prasanth B, Ashurkar, Abdhuleah Mahmood A, Abazi (2015) conducted study on 'An Evaluation and Analysis of the Risk/Return profile of selected Banks'. The study was to analyse the economic condition of Indian Banks and to find out the credit exposure that the top five Banks in the country have in the market. They studied the NPA level as against the total assets of the bank. It found that there is a need to manage the risk and maximise the return in all five Banks.
Dr. S Krishnaprabha Mr. M Vijayakumar (2015) had conducted 'a study on risk return analysis of selected stocks in India'. The study conducted to analyse the risk and return of investing in various companies like banking, IT, FMCG, Automobiles, pharmaceuticals etc. The results of the study states that there is less fluctuations in the shares when compared to the market as well as prices. The long term investors are able to predict the about the variations in the share prices. Majority of IT, FMCG, pharmaceutical sectors gives more return compared to banking and automobiles.
Bedanta Bora, Anindita Adhikary (2015) has conducted a study on' Risk and Return Relationship – an Empirical Study of BSE Sensex Companies in India'. The basic framework of the study was analysis of relationship between risk and returns on the basis of beta of 30 companies listed at BSE Sensex. It concluded that 99% of variation in the Sensex is explained by variation in scripts.

IMPORTANCE OF THE STUDY
The stock market is an investment platform for making money as returns. As it provides higher returns in comparison with other investment avenues, the risk is also high. So it is important to study the risk and return from securities before making an investment.

STATEMENT OF PROBLEM
Investor believes that stock market investment gives them unexpected high rate of return from their investment. But actually it is a bad notion and people end up their investments with unlimited loss. They also think that its works on the basis of speculation. But actual scenario is quite different. As we know it is risky to invest in stock market. The study aims to identify the risk- return relationship.

OBJECTIVES OF THE STUDY
- To find out the returns of investing in FMCG and Pharmaceutical companies over the last five- six years based on the historical data
- To find out the expected return and to see the variations with actual return as Alpha.
- To calculate the risk of investing in each of these companies and relationship with returns.

RESEARCH METHODOLOGY
To address the objectives laid down, FMCG and Pharmaceutical Industry was taken as the universe and a sample of 20 NSE listed companies from both the sectors (10 each) were selected purposefully based on the top 10 ranking in terms of Market capitalization. The study was based on the historical data from moneycontrol.com. Stock prices from 1-April 2010 to 31-March 2016 were taken as the secondary data for analysis.

METHODOLOGIES USED

1. Return from stock

Capital Yield = (closing Price – Opening Price)/Opening Price*100

2. Return from nifty

Return = (closing Price – Opening Price)/Opening Price*100

3. Average return

Average Return= Total return for 6 years/6

4. Beta

$$\beta_i = \frac{cov(r_i, r_m)}{var(r_m)}$$

Ri = Return from stock

Rm = Return from market index (nifty)

Cov = Covariance between Nifty and stock

Var = Variance of Nifty

5. Alpha (α)

Alpha = Actual Return – Expected Return

Expected Return (CAPM Return) = R f +β (R m-R f)

R f= Risk Free Rate (10 Year Bond Rate)

β = Beta of the stock for 6 years

R m = Return from Market (Average Return for 6 years) = 7.37

Actual Return = Return from stock (average Return for 6 years)

6. Coefficient of variance = Standard Deviation/ Expected Return

7. Covariance (nifty, stock)

$$cov(r_i, r_m) = \frac{\sum_{t-1}^{n}(r_{it} - \overline{r}_t)(r_{mt} - \overline{r}_m)}{n-1}$$

$r_{it} - \overline{r}$ = Actual Return from Stock- Average Return from Stock

$r_{mt} - \overline{r}_m$ = Actual Return from Nifty- Average Return from Nifty

8. Variance(nifty) and stock

$$\sigma_m^2 = \frac{\sum_{t=1}^{n}(r_{mt} - \overline{r}_m)^2}{n-1}$$

9. Standard deviation

σ = Square Root (Variance)

10. Correlation

$$\rho_{i,m} = \frac{cov(r_i, r_m)}{\sigma_{m_i} \sigma_i}$$

RESULTS AND DISCUSSIONS

The top 10 companies taken for Analysis are as follows

FMCG INDUSTRY PHARMACEUTICAL INDUSTRY

• Indian Tobacco Company Limited	Sun Pharmaceutical Industries Limited
• Hindustan Unilever Limited	Dr. Reddy's Laboratories
• Nestle India	Cadila Healthcare Limited
• Godrej Industries	Cipla Limited
• Colgate Palmolive	Lupin Limited
• Dabur India	Glenmark Pharmaceuticals
• Procter and Gamble	Glaxosmithkline Pharmaceuticals Limited
• Britannia Industries	Aurobindo Pharma limited
• Marico limited	Torrent pharmaceuticals
• Emami Limited	Divis Laboratories

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TABLE 1: SHOWING THE CAPITAL YIELD (YEARLY RETURNS) OF 10 FMCG COMPANIES FROM 1-4-2010 TO 31-3-2016

COMPANY	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
ITC LTD	37.95	24.64	36.08	14.19	-7.82	0.74
HUL LTD	19.4	43	14.39	29.95	44.39	-0.46
NESTLE INDIA	38.67	23.55	-0.47	7.57	37.06	-18.35
GODREJ INDUSTRIES	29.3	40.73	14.06	7.71	10.31	2.39
COLGATE PALM-OLIVE	19.73	35.69	10.47	8.94	46.5	-17.06
DABUR INDIA	20.65	11.04	28.59	31.13	46.71	-6.23
BRITANNIA INDUSTRIES	16.04	60.49	-11.03	56.79	156.85	24.63
PROCTER &GAMBLE	4.64	17.85	12.26	29.1	123.76	-12.51
MARICO LTD	26.9	25.7	23.21	-1.92	83.7	26.09
EMAMI LTD	30.17	1.57	47.21	6.68	129.61	-6.11

Source: Historical Stock Prices and own calculations

CHART 1: SHOWING THE CAPITAL YIELD (YEARLY RETURNS) OF 10 FMCG COMPANIES FROM 1-4-2010 TO 31-3-2016
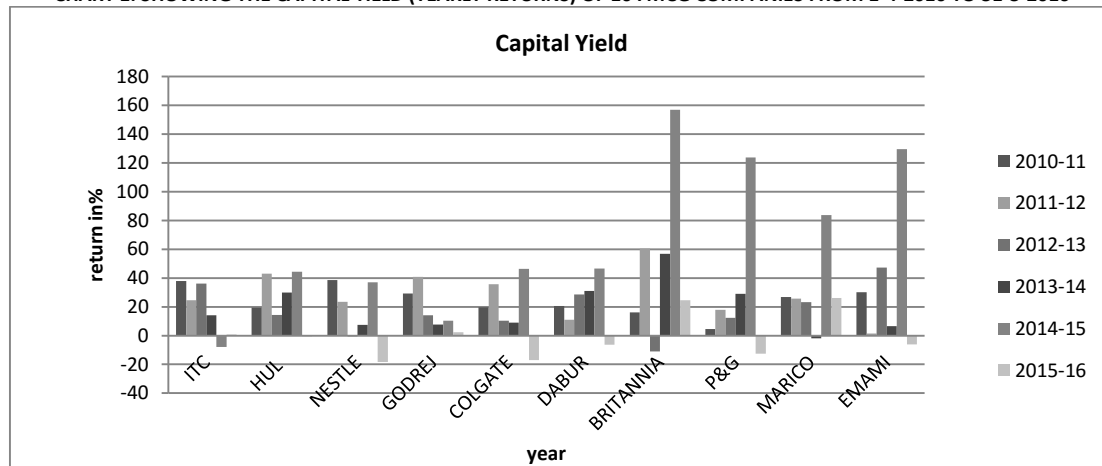
Source: Table 1

Interpretation

Table 1 represents that the return from 10 FMCG companies is showing fluctuations. In the year 2015- 16, return from most of the companies have come down which was result of reduction in the share price and they are showing a negative return. But average return for five years is indicating that long term investors will get a good return from the investment.

TABLE 2: SHOWING THE CAPITAL YIELD (YEARLY RETURNS) OF 10 FMCG COMPANIES FROM 1-4-2010 TO 31-3-2016

Company	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
CADILA HEALTH CARE	41.89	-6.02	-2.77	36.3	70.1	-9.72
SUN PHARMA	23.26	28.86	44.92	40.86	78.07	-19.9
DR.REDDY'S LAB	27.75	7.34	-0.42	44.12	35.17	-14.28
CIPLA	-5.12	-5.51	24.51	-0.25	85.68	-28.3
GLAXOSMITHKLINE	15.7	13	-4.2	16.7	33.03	10.57
GLENMARK	4.9	8.71	49.81	19.75	38.05	0.65
LUPIN	28.01	25.49	18.15	48.35	113.71	-26.33
AUROBINDO PHARMA	2.06	-39.59	25.83	223.73	140	22.62
TORRENT PHARMA	5.54	9.35	12.01	49.77	118.5	14.17
DIVIS LABS	-1.29	12.99	28.58	38.11	30.71	11.55

Source: Historical Stock Prices and own calculations

CHART 2: SHOWING THE CAPITAL YIELD (YEARLY RETURNS) OF 10 FMCG COMPANIES FROM 1-4-2010 TO 31-3-2016
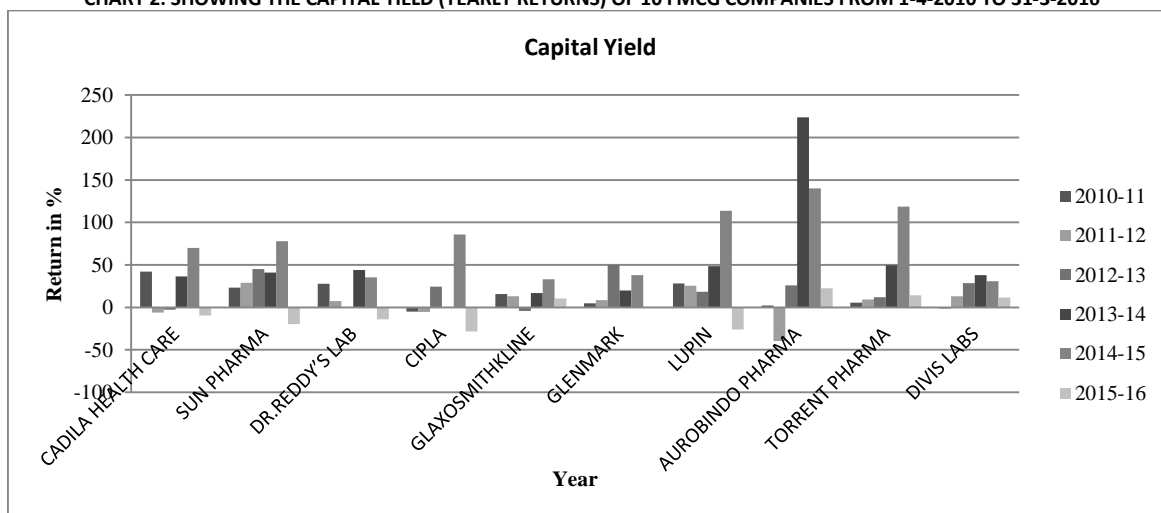
Source: Table2

Interpretation

Table 2 represents that the returns from 10 pharmaceutical companies are showing high fluctuations. The higher return earned in one year is not permanent but at the same time shows highest loss in next year. It shows the risk of investing. In the year 2015- 16, return from most of the companies have come down which was result of reduction in the share price and they are showing a negative return. But average return for five years is indicating that long term investors will get a good return from the investment.

TABLE 3: SHOWING THE CAPM RETURN AND ACTUAL AVERAGE RETURN AND ALPHA FROM FMCG INDUSTRY

Name of Company	CAPM Return	Actual Avg. Return(stock)	Alpha
ITC Limited	7.39	17.63	10.19
HUL LTD	7.42	25.18	17.76
NESTLE INDIA	7.44	14.67	7.28
GODREJ INDUSTRIES	7.49	17.42	9.93
DABUR INDIA	7.36	21.98	14.62
COLGATE PALM-OLIVE	7.40	17.38	9.98
P&G	18.58	29.19	10.60
BRITANNIA	7.27	50.63	43.36
MARICO	7.39	30.61	23.22
EMAMI	7.23	34.86	27.62

Source: Historical Stock Prices and own calculations

CHART 3: SHOWING THE EXPECTED RETURN (CAPM RETURN) AND ACTUAL AVERAGE RETURN AND ALPHA OF FMCG INDUSTRY
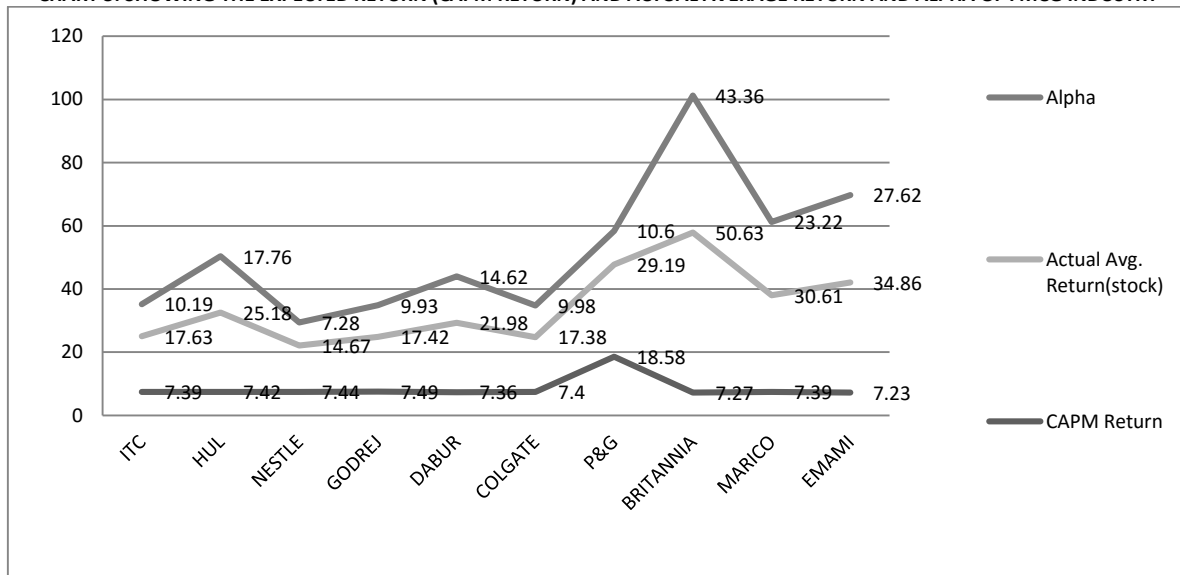
Source: Table 3

Interpretation

Expected return from FMCG sector based on the CAPM model shown in Table 3 indicates the companies expecting return on the basis of Beta and risk free rate. Actual average return is based on the averages of returns for last 6 years and Alpha shows the excess of actual return over he expected return. A positive Alpha of 1.0 means the stock is out performed its Nifty index by 1%. Therefore, above 10 companies are outperforming the benchmark i.e. Britannia Industries up by 43%.

TABLE 4: SHOWING THE EXPECTED RETURN (CAPM RETURN) AND ACTUAL AVERAGE RETURN AND ALPHA OF PHARMACEUTICAL INDUSTRY

Name of Company	CAPM Return	Actual Avg. Return (stock)	Alpha
SUN PHARMA	7.31	32.68	25.37
DR.REDDY'S	7.35	16.61	9.27
CADILA	7.28	21.63	14.35
CIPLA	7.28	11.84	4.56
LUPIN	7.23	34.56	27.34
GLAXOSMITHKLINE	7.42	14.13	6.71
GLENMARK	7.39	20.31	12.92
AUROBINDO	7.02	62.44	55.43
TORRENT	7.26	34.89	27.63
DIVIS	7.41	20.11	12.69

Source: Historical Stock Prices and own calculations

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CHART 4: SHOWING EXPECTED RETURN (CAPM RETURN) AND ACTUAL AVERAGE RETURN AND ALPHA) OF PHARMACEUTICAL INDUSTRY
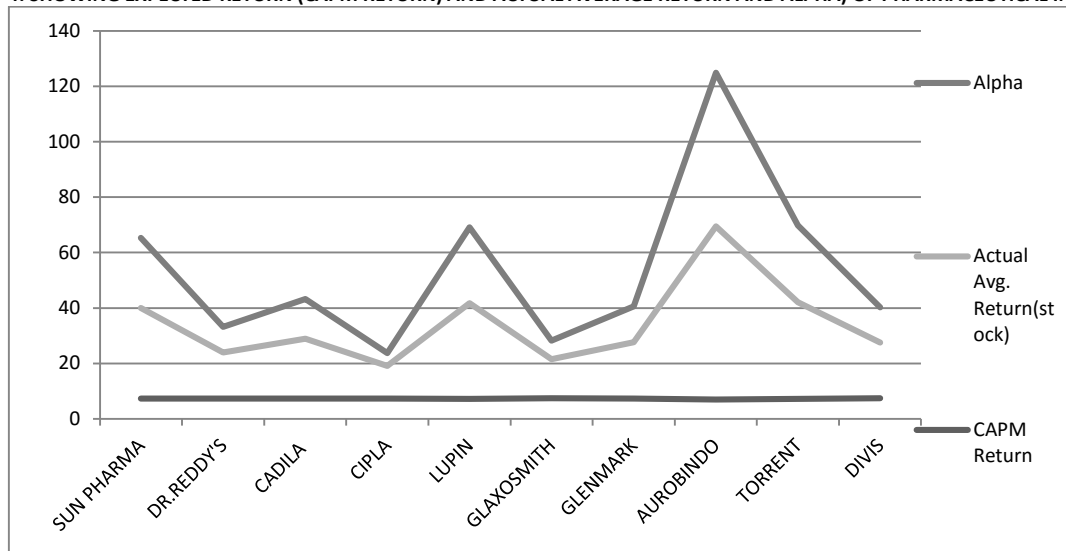
Source: Table 4

Interpretation

In table 4 CAPM return or the expected return is very less compared with the actual return from stock. Alpha shows the percentage excess return over the CAPM return. As it shows more than 1% in all the years, top ten companies are outperforming the market (CNX Nifty).

TABLE 5: SHOWING THE STANDARD DEVIATION, VARIANCE AND AVERAGE RETURN FROM CNX NIFTY

Standard Deviation	14.22
Variance	202.21
Average Return	7.37

Source: Historical Stock Prices and own calculations

Interpretation

As per table 5 CNX Nifty shows Standard Deviation of 14.22, Variance of 202.21 and an average return of 7.37.

TABLE 6: SHOWING THE RISK MEASURES OF STOCKS IN FMCG INDUSTRY

Name of Company	Beta	Covariance (nifty, stock)	Variance (stock)	Standard Deviation (stock)	Correlation	Coefficient of Variance
ITC	-.28	-56.49	349.53	18.70	-0.21	3.04
HUL	.50	100.28	305.90	17.49	0.40	2.36
NESTLE	.82	165.05	505.20	22.48	0.52	2.51
GODREJ	-.33	-66.67	213.29	14.60	-0.32	1.95
DABUR	1.18	238.27	331.26	18.20	0.92	2.47
COLGATE	.71	144.40	498.75	22.33	0.45	3.02
P&G	2.52	509.68	2339.88	48.37	0.74	2.60
BRITANNIA	2.17	438.35	3418.16	58.47	0.53	8.03
MARICO	.80	160.87	797.91	28.25	0.40	3.82
EMAMI	2.66	537.58	2546.48	50.46	0.75	6.98

Source: Historical Stock Prices and own calculations

Interpretation

Beta: Beta shows the systematic risk of the stocks. ITC Limited and Godrej Industries are showing a negative beta of -0.28 and -0.33 respectively. HUL, Colgate and Marico are also showing a beta less than 1. So the companies with beta less than 1 are termed as defensive shares and these are less volatile than the market and may experiencing smaller than the average gains.

Covariance (stock, Nifty): Covariance shows the relation between variance of the stock and nifty index. It shows the risk relationship. Beta depends up on the Covariance.

Variance: shows that how the variance of market moves together with the returns.

Standard Deviations: standard deviation represents the total risk of investing in shares which comprises of systematic and unsystematic risk. Procter and Gamble, Britannia and Emami limited shows the high risk.

Correlation: correlation is negative for ITC Limited and Godrej Industries and these companies are perfectly negatively correlated and all other companies are showing a positive correlation.

TABLE 7: SHOWING THE RISK MEASURES OF STOCKS IN PHARMACEUTICAL INDUSTRY

Name of Company	Beta	Covariance (nifty, stock)	Variance (stock)	Standard Deviation(stock)	Correlation	Coefficient of Variance
SUN PHARMA	1.79	362.90	1029.29	32.08	0.80	4.39
DR.REDDY'S	1.31	265.76	511.17	22.61	0.83	3.08
CADILA	2.08	421.30	1063.35	32.61	0.91	4.48
CIPLA	2.11	427.19	1591.71	39.9	0.75	5.48
LUPIN	2.71	548.31	2111.26	45.95	0.84	6.36
GLAXOSMITHKLINE	.46	93.11	143.30	11.97	0.55	1.61
GLENMARK	.77	155.58	388.77	19.72	0.55	2.67
AUROBINDO	5.18	1046.88	9802.81	99.01	0.74	14.10
TORRENT	2.35	475.28	1936.49	44.01	0.76	6.06
DIVIS	.55	112.02	218.03	14.77	0.53	1.99

Source: Historical Stock Prices and own calculations

Interpretation

Beta: Beta shows the systematic risk of the stocks. All companies are showing beta greater than 0 which means positive. AurobindoPharma shows the high beta of 5.18. Sun pharmaceuticals, Dr. Reddy's lab, cadila healthcare, cipla, lupin, and torrent pharma shows the high beta greater than 1 means these stocks are aggressive stocks. Glenmark, divis labs and GlaxoSmithKline shows the beta less than 1 and these are defensive stocks.

Covariance (stock, Nifty): Covariance shows the relation between variance of the stock and nifty index. It shows the risk relationship. Beta depends up on the Covariance.

Variance: shows that how the variance of market moves together with the returns.

S**tandard Deviations:** standard deviation represents the total risk of investing in shares which comprises of systematic and unsystematic risk. Aurobindo pharma shows the high risk.

Correlation: all 10 Pharmaceutical companies are perfectly positively correlated.

TABLE 8: SHOWING THE RISK- RETURN RELATIONSHIP OF 10 SECURITIES IN FMCG INDUSTRY

Name of Company	Beta	Actual Avg. Return(stock)
GODREJ INDUSTRIES	-0.33	17.42
ITC LTD	-0.28	17.63
HUL LTD	0.5	25.18
COLGATE PALMOLIVE	0.71	17.38
MARICO LTD	0.8	30.61
NESTLE INDIA	0.82	14.67
DABUR INDIA	1.18	21.98
BRITANNIA INDUSTRIES	2.17	50.63
PROCTER AND GAMBLE	2.52	29.19
EMAMILIMITES	2.66	34.86

Source: Historical Stock Prices and own calculations

CHART 5: SHOWING THE RISK- RETURN RELATIONSHIP OF 10 SECURITIES IN FMCG INDUSTRY
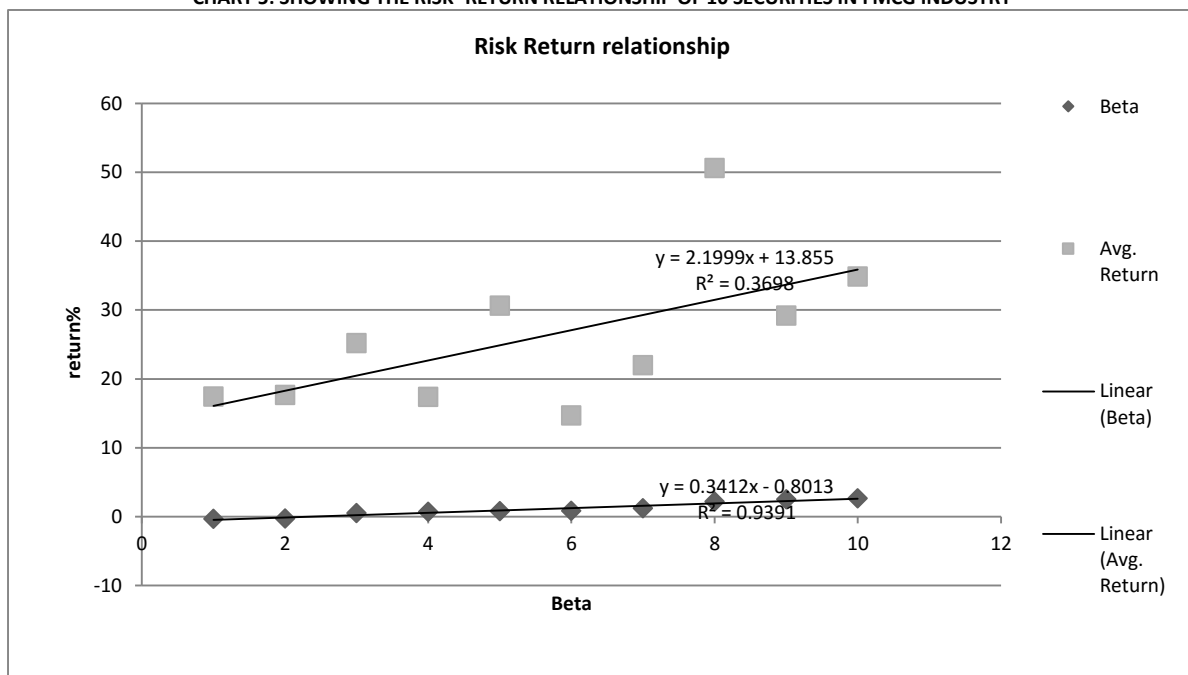
Source: Table 8

Interpretation

Table 8 presents the Beta and average return of 10 FMCG companies from 1-April 2010 to 31-March 2016. The companies with less beta value can be termed and less volatile. The returns from these stocks are less and these stocks are less responsive to the market upswings and down swings. Securities with high beta value exhibit high degree of market sensitivity. High beta shows the higher risk. ITC limited and Godrej industries is showing negative beta value indicates the low risk and return.

TABLE 9: SHOWING THE RISK- RETURN RELATIONSHIP OF 10 SECURITIES IN PHARMACEUTICAL INDUSTRY

Name of Company	Actual Avg. Return(stock)	Beta
GLAXOSMITHKLINE	14.13	.46
DIVIS LABS	20.11	.55
GLENMARK PHARMACEUTICALS	20.31	.77
DR.REDDY'S LABORATORIES	16.61	1.31
SUN PHARMACEUTICALS	32.68	1.79
CADILA HEALTHCARE	21.63	2.08
CIPLA LIMITED	11.84	2.11
TORRENT PHARMA	34.89	2.35
LUPIN LIMITED	34.56	2.71
AUROBINDO PHARMA	62.44	5.18

Source: Historical Stock Prices and own calculations

CHART 6: SHOWING THE RISK- RETURN RELATIONSHIP OF 10 SECURITIES IN PHARMACEUTICAL INDUSTRY
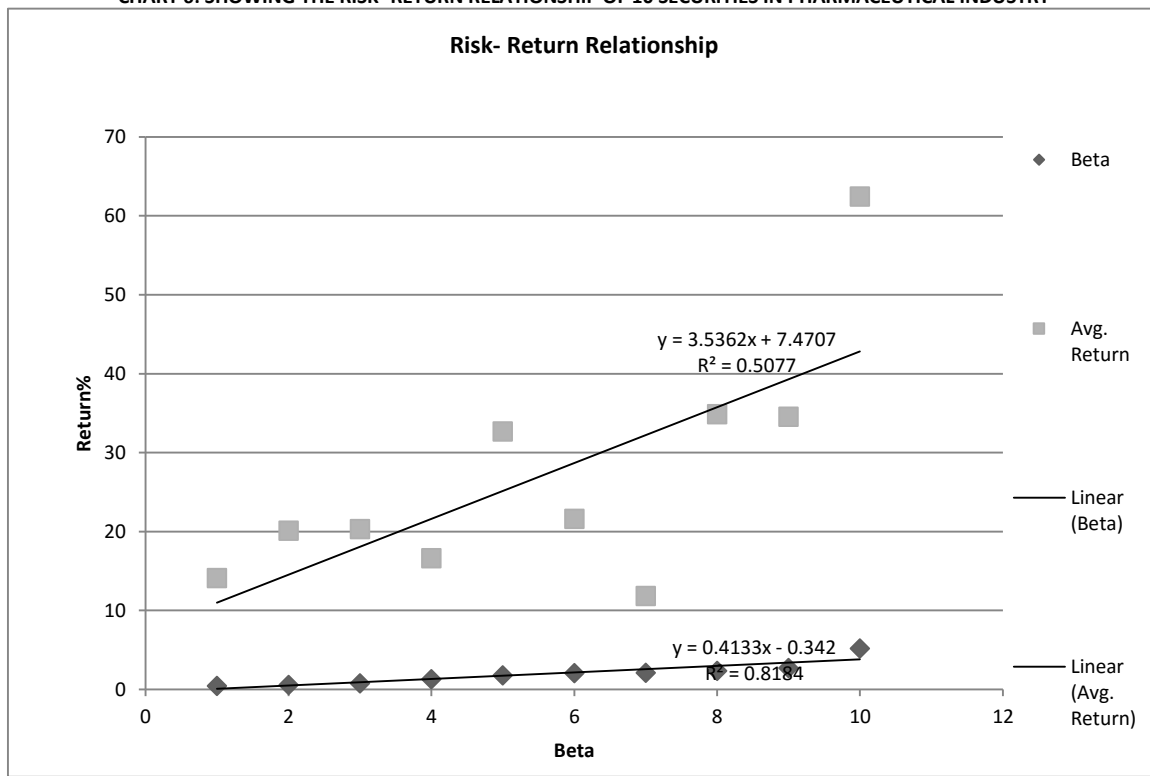
Source: Table 9

Interpretation

Table: 9 presents the Beta and average return of 10 Pharmaceutical companies from 1-April 2010 to 31-March 2016. The companies with less beta value can be termed and less volatile. The returns from GlaxoSmithKline, Divis labs are less and these stocks are less responsive to the market upswings and down swings. Securities with high beta value exhibit high degree of market sensitivity. High beta shows the higher risk. Aurobindo pharma shows the high beta of 5.18 and an average return of 62.44%.

FINDINGS

FMCG INDUSTRY

- FMCG industry returns are fluctuating year by year but the companies are trying to provide a stable return to the investors. The industry gives a lower average return of 14% and a higher average return of 50 %. Godrej industries, ITC, HUL, Colgate palm-olive, Marico, Nestle represents the beta value less than 1 showing that these stocks are less volatile and the returns are also related with beta value. Dabur India, Britannia, P&G, Emami represents the high beta values and hence shows the high returns and high volatility. So return from investment is related with the risk.

PHARMACEUTICAL INDUSTRY

- Pharmaceutical Industry comprises of high risky investments provides the better returns. The industry gives lower average return from cipla limited (11%) and higher average turn from Aurobindo pharma (62%). The stock with beta less than 1 are GlaxoSmithKline, Divis labs, Glenmark Pharmaceuticals. These are less volatile stocks. Stocks with beta value greater than 1 are Dr. Reddy's Laboratories, Sun Pharmaceuticals, Cadila Healthcare, Cipla, Torrent, Lupin and aurobindo pharma. These are categorised are volatile stocks. Aurobindo Pharma has a beta value of 5.18 with a return of 62%. Therefore, Risk and return are interrelated.

Fast Moving Consumer Goods and Pharmaceutical industry, Pharmaceutical Industry are defensive sectors. Based on the above analysis both these sectors are providing good return to the investors even though returns are fluctuating. Therefore, it has been found that Pharmaceutical industry is more volatile and riskier than the FMCG Industry.

SUGGESTIONS

- The investors should be aware about the return and risk of investing in security market as it is high risky.
- It's better to do a fundamental and technical analysis to see the position of the company.
- Risk- Return relationship analysis can help the investor to select a good company for investment.
- Researchers can study the risk and returns from many other industrial sectors.

CONCLUSION

The risk–return relationship analysis analysed the returns and risk values of the TOP 10 companies from FMCG and Pharmaceutical Industry in India. Both the sectors are providing good returns to the investors. It is found that the high risk gives higher returns. But the investors expect lower risk and higher returns. Risk and Return Analysis based on the historical stock prices helps them to assess the risk before investing. The study found that stock market is not place for speculative investments and returns from stock market depend upon the risk bearing capacity of the investor. It is proved that return and risk are interrelated.

LIMITATIONS

- The study has been conducted on the basis of long term returns. So the Short Term investors may not benefiting from this Analysis
- Sample size is restricted two industries in Indian Market which is also in the category of Defensive Sectors
- Data collected was from secondary sources
- Time period was restricted to 3 months

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PUBLIC DEBT AND ECONOMIC GROWTH NEXUS IN INDIA: AN EMPIRICAL INVESTIGATION

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ABSTRACT

Many countries, particularly developing nations have continued to witness increasing debt profile since the world economic recession of 2007; the Indian case is not an exception. The nature of effect the increasing debt profile has on the economic growth of India forms the crux of this study. The study employed the Augmented Dickey Fuller (ADF) test for unit root to test stationarity of the data, and all the variables were found to be integrated of order one. Johansen cointegration test was applied to examine whether the variables are cointegrated or not, findings of the test show the presence of long run association between the variables. The Vector Error Correction Model (VECM) was employed to examine the long run and short run relationship among the variables. Long run estimates showed the presence of a positive and significant relationship between Internal Debt, external Debt and Investment with GDP, while the relationship between Debt Servicing and GDP was found to be significantly negative. In the short run, Internal Debt, External Debt and Debt Servicing exhibited a negative impact on GDP, while Investment was found to be having a positive relationship with GDP.

KEYWORDS
public debt, economic growth, india.

JEL CLASSIFICATION
H63, O43, E22, C22.

INTRODUCTION
Many Economists have tried to investigate the effect of public debt on economic growth. The researchers used different data sets, methods and techniques to check the nature of relationship between external debt and economic growth. Some researchers concluded that there is a positive effect of public debt on economic growth as public debt gives a boost to the economy where as some concluded a negative relationship between external debt and economic growth because of the inefficient allocation of the resources (Rabia and Kamaran, 2012). Many countries around the world have continued to witness a rising public debt profile. The financial crisis which erupted in 2007 and intensified in 2008, and the ensuing economic recession had an adverse effect on public finances and this led to increase in the debt profile of most of the affected countries (Nautet and Meensel, 2013). India's case is not an exception; it has also continued to witness an increase in nominal terms of its public debt structure. Public debt can be seen as a two-edged sword, when used wisely; it clearly improves growth, but if used imprudently and in excess, the resultant effect can be critical (Cecchetti et al, 2011). In developing countries, external debt forms main part of the public debt structure. Of recent, many developing countries have changed their debt structure by adopting the policies to substitute external debt with domestically issued debt (Rabia and Kamaran, 2012). Although studies such as (Folorunso and Felix, 2008) as well as (Rabia and Kamaran, 2012) found the relationship between public debt and economic growth to be negative, studies such as (Ugo and Adrea, 2013) found the relationship to be non-monotone. It is on this end that the study carried out an empirical analysis of the impact of public debt on the economic growth of India.

OBJECTIVES
The objectives of the study are to:
1. Determine the impact of public debt on economic growth of India.
2. To examine the relationship between the components of public debt and economic growth of India

LITERATURE REVIEW
Rabia and Kamaran (2012) in their study on the impact of domestic and external debt on economic growth of Pakistan found an inverse relationship between the debt and economic growth. Their findings posit that external debt amount slows down economic growth more as compared to domestic debt.
Criatina and Philipp (2010) examined the impact of government debt on per-capita GDP growth in twelve euro area countries for a period of 40 years. Their result shows a non-linear impact of debt on growth. Negative growth impact was found to when debt is around 70-80 percent of GDP.
Nauteet and Meensel (2013) categorized the impact of public debt on GDP into the short run and long run impact. Their result showed the existence of a negative but very small impact in the short run, but in the long run; the impact was found to be positive through the multiplier effect.
Cecchetti et al. (2011) sees the impact of debt at the moderate level as a catalyst which enhances growth and improve welfare. Their findings reveal that beyond a threshold level, in the case of government debt 85 percent, debt is a drag on growth.
Ugo and Andrea (2013) opined that most literatures do not provide concrete evidence that debt has an effect on economic growth. They further asserted that a growth in debt might not necessarily dampen growth, but restrictive fiscal policies by government to curb debt might reduce growth. They hence found the relationship to be monotone.

Tamoya and Felix (2012) are of the view that; financing productive government expenditure with additional debt reduces growth in the long run. This obtains whether there is high or low existing debt stock as additional borrowing not only raises current debt, but also increases debt servicing costs.

Folorunso and Felix (2008) examined the impact of external debt on economic growth of Nigeria and South Africa. Their findings reveal a negative impact of debt on economic growth, but however, external debt contributes positively to growth up to a point, after which its effect becomes negative.

Balbir and Atri (2012) found a statistically significant non-linear relationship between Public debt and growth in India, thus implying a negative impact of public debt on economic growth at higher levels. They found the threshold level of government debt–GDP ratio for India to be 61 percent.

Al-Zeaud (2014) examined the impact of public debt on the performance of the Jordanian economy using new econometric techniques that provide appropriate procedures for estimation and inference. Empirical evidence shows that population growth and public debt have played very crucial role towards economic growth in Jordan. It shows that public debt has promoted economic growth, while population growth has hindered it.

Apere (2014) in his paper on the impact of public debt on private investment in Nigeria: evidence from a non-linear model. Used the instrumental variable technique of estimation and bootstrapping technique for the computation of normal based standards errors for the turning points. The findings show that domestic borrowing has a linear and positive impact on private investment; while external debt has a u-shaped impact on private investment.

Charles (2012) in his work on "Domestic Debt and the Growth of Nigerian Economy" employed the Ordinary Least Squares method (OLS). Error correction and parsimonious models are used to analyze quarterly data between 1994 and 2008. The study affirms that the level of debt has negative effect on economic growth and also crowding out effect of private investment was found. Government should maintain a debt-bank deposit ratio below 35 percent, resort to increase use of tax revenue, to finance its deficits.

Utomi (2014) in his work on "The Impact of External Debt on Economic Growth in Nigeria" employed the Augmented Dickey Fuller (ADF) unit root test, Johansen co-integration and vector error correction techniques of estimation which provides coefficient estimates of the time-series data used in analysis. It also carries out a causality test using Granger Causality test to check for a causal relationship between external debt and economic growth in Nigeria. Findings of the study show on insignificant long run relationship and a bi-directional relationship between external debt and economic growth in Nigeria.

METHODOLOGY

The study employed the Augmented Dickey Fuller (ADF) Test for unit root, Johansen Cointegration Test, Vector Error Correction Model (Short run and Long run estimates), Short run Causality, Impulse Response Function (IRF) and Forecast Error Variance Decomposition (FEVD). Data on annual series of the study variables for the periods 1989 to 2014 were sourced from the Handbook of Statistics on Indian Economy (2014) and World Bank Development Indicators.

MODEL SPECIFICATION

The model is specified as:

GDP = f (ED, ID, DS, INV)

Where

GDP – Real Gross Domestic Product.

ED- External Debt.

ID – Internal Debt.

INT– Investment (GDCF).

DS – Debt Service Payment.

Note* All variables are in their log form.

Since we are running a VECM Model, the VAR(p) specification of the model is given by:

$$Y_t = C + \prod_1 Y_{t-1} + \prod_2 Y_{t-2} + \ldots\ldots + \prod_p Y_{t-p} + \in_t \qquad (1)$$

Where: Y_t is a vector of endogenous variables =

C is a vector of intercept term.

$\prod_i$ is an (n x n) coefficient matrix.

$\in_t$ is a vector of error term.

$$\begin{pmatrix} GDP \\ DD \\ ED \\ DS \\ INV \end{pmatrix}$$

The long run cointegrating equation is specified as:

$$U_t = GDP - \alpha_0 - \beta_1 ED - \beta_2 DD - \beta_3 DS - \beta_4 INV \qquad (2)$$

The Vector Error Correction Model (VECM) is specified as:

$$\Delta Y_t = C + \sum_{i=1}^{k} \Gamma \Delta Y_{t-i} + \gamma(U_{t-1}) + \varepsilon_t \qquad (3)$$

Where C = Vector of Constant terms.

Y_t = Vector of Endogenous Variables.

Γ = Short run coefficient matrices.

γ = Error correction term/ speed of adjustment.

Δ = Short run operator.

U_{t-1} = One lag of long run cointegrating equation.

ε_t = Vector of error term.

FINDINGS AND DISCUSSION

STATIONARITY TEST

Owing to the fact that time series data is used, in other to avoid spurious regression, the series are first checked whether they are stationary or not. A series is said to be stationary if it is time invariant. To do this, the study employed the ADF Unit Root Test and the result is presented in Table 1.0.

TABLE 1: 0ADF UNIT ROOT TEST RESULT

Variables	Level			First Difference			Order
	None	Intercept	Int & T	None	Intercept	Int & T	
GDP	14.30	1.36	-2.37	-1.02	-3.86**	-4.09*	I(1)
ED	2.96	0.05	-1.37	-1.83	-5.22**	-5.13**	I(1)
ID	8.45	-1.04	-1.62	-1.79	-4.63**	-4.68**	I(1)
DS	-0.63	-1.59	-2.30	-5.20**	-5.12**	-5.05**	I(1)
INV	4.48	0.18	-2.47	-1.35	-6.05**	-6.19**	I(1)

Source: Author's own computation.

H0: Unit root in series. **and* denotes rejecting H0 at 1% and 5% significance respectively.

Table 1.0 presents the result of the ADF unit root test. Under the ADF test, the null hypothesis of non-stationarity (unit root) is rejected if the test statistic is more negative than the critical values. If a variable is found to be stationary in its raw form without any transformation, it is said to be integrated of order zero i.e. I(0), but of a variable only became stationary after taking its first difference, it is said to be integrated of order one. From our result above, it can be seen that all our variables were found to be stationary only after taking their first difference, we could thus conclude that all our variables are I (1).

COINTEGRATION TEST

Having examined the order of integration of our variables and all were found to be integrated of order one i.e. non-stationary, the next step in the analysis is to examine whether our variables have long run association. To do this, the study applied the Johansen cointegration test and the result is presented in table 2.0.

TABLE 2.0: JOHANSEN COINTEGRATION TEST RESULT

Hypothesized No. of CE(s)	TRACE TEST		MAX EIGEN VALUE TEST	
	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value
None	122.3184*	69.81889	67.44555*	33.87687
At most 1	54.87284*	47.85613	34.26740*	27.58434
At most 2	20.60544	29.79707	16.21334	21.13162
At most 3	4.392103	15.49471	4.134853	14.26460
At most 4	0.257250	3.841466	0.257250	3.841466

Source: Author's own computation. * denotes rejection of the hypothesis at the 0.05 level

Table 2.0 presents the cointegration test result. Under the Johansen Cointegration methodology, there are basically two tests that are employed; they are the Trace test and Maximum Eigen Value test. Under each of the tests, the null hypothesis is rejected if the test statistic is greater the critical value at 5 percent level of significance. From the result presented, it can be seen that in both the test, the null hypothesis of the existence of at most one cointegration equation was rejected; we could thus conclude that in both tests there is presence of two cointegrating equations. The finding of the test points to the fact that there is long run association among the variables.

LONG RUN RELATIONSHIP ESTIMATION

After establishing the presence of long run association among the variables from the cointegration test, the next step in the analysis is to examine the long run relationship between the variables. The normalized long run relationship among the variables is presented below:

GDP = 4.92 + 0.10ID* + 0.13ED* -0.05DS* + 0.41INV* (4)

* indicates statistical significance at 5%.

Equation (4) above presents the long run relationship estimates. Since our variables are in their log form, the relationship between the variables is in its elasticity form. Internal Debt was found to have a significant positive relationship with GDP, one percent increase in Internal Debt leads to 0.10 percent increase in GDP. External Debt was also found to have a positive and significant relationship with GDP. One percent increase in External Borrowing leads to a 0.13 percent increase in GDP. However, the relationship between Debt Service Payment and GDP was found to be statistically negative. One percent inverse in Debt Service Payment leads to 0.05 percent decrease in GDP. Investment was found to have a significant positive relationship with GDP, one percent increase in Investment leads to a 0.41 percent increase in GDP. We could thus conclude that in the long run, Internal Debt, External Debt, and Investment all have a positive impact on economic growth of India, while Debt Service Payment has a negative effect on economic growth of India.

VECTOR ERROR CORRECTION MODEL

This model was estimated to retrieve the short run dynamics of the model as well as the Error Correction Term (ECT). The estimates are presented in Table 3.0

TABLE 3.0 ERROR CORRECTION REPRESENTATION

VARIABLES	COEFFICIENT	T-STATISTIC	PROB.
ECT	-0.244	-2.318	0.041*
D(ID(-1))	-0.110	-4.045	0.002**
D(ID(-2))	-0.040	-1.264	0.233
D(ED(-1))	-0.109	-4.411	0.001**
D(ED(-2))	-0.004	-0.155	0.879
D(DS(-1))	-0.055	-5.655	0.000**
D(DS(-2))	-0.027	-2.421	0.034*
D(INV(-1))	0.118	2.991	0.012*
D(INV(-12))	0.221	6.456	0.000**
C	0.124	9.681	0.000
R- Squared	0.898		
Adj R- Squared	0.795		
F- Stat.	8.78		
Prob.	0.00		

Source: Author's own computation.

*and** signifies statistical significance at 5% and 1% respectively.

From the result in Table 3.0, the presence of a stable long run relationship is further confirmed by the significant Error Correction Term (ECT). The coefficient of the ECT shows the speed of adjustment of the economy towards long run equilibrium following a shock in the economy. The result shows that following a shock in the economy, about 24 percent convergence towards long run equilibrium is completed in one year.

From the short run estimates, first lag of Internal Debt was found to have a significant negative relationship with GDP, so also is the first lag of External Debt. In the same vein, both first and second lags of Debt servicing were found to have a negative and significant relationship with GDP. However, the first and second lags of Investment were found to have a significant positive impact on GDP in the short run.

R-squared shows the explanatory power of the independent variables on the dependent variable. From the R-squared coefficient, it can be seen that about 90 percent variations in GDP are explained by the independent variables. The Adjusted R-Square also shows the explanatory power of the independent variables on

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the dependent variables by imposing restrictions on the inclusion of additional variables, its coefficient shows that about 80 percent variations in GDP is explained by the independent variables. F-statistics and its probability value show the overall significance of the model, from the probability value (0.00), we can conclude that the model is fit and significant on the overall.

RESIDUAL DIAGNOSTICS

There are certain conditions in which the residuals of a model must satisfy before the model is accepted. The conditions are; it must be free from serial correlation, be homoscedastic and be normally distributed. To test for serial correlation, the study employed the Breusch-Godfrey LM test. The probability value of the test statistic (0.13) showed the acceptance of the null hypothesis, we could thus conclude that the residuals are free from serial correlation (see appendix one). BPG test for hetroskedaticity was also applied on the residuals; the probability value of the test statistic (0.28) shows residuals to be homoscedastic (see appendix two). Lastly, the Jarque-Bera normality test was also applied, the probability value of the test statistic (0.79) shows the acceptance of the null hypothesis, hence concluding that residuals are normally distributed (see appendix three).

SHORT RUN CAUSALITY

A variable is said to granger cause another variable if the past value of the variable is useful in forecasting the future values of the other variable. To examine the short run causality among the variables, the study employed the Wald Coefficient Restriction test and the result is presented in the table below:

TABLE 4.0: SHORT RUN CAUSALITY TEST RESULT

Direction of Causality	F- Statistic	Probability
ID > GDP	8.61	0.01*
ED > GDP	10.19	0.00*
DS > GDP	16.84	0.00*
INV> GDP	21.09	0.00*

Source: Author's computation.

* indicates statistical significance at 5%.

Table 4.0 presents result of short run causality among the variables. A variable is said to granger cause the other if the probability value is less than 0.05. From our result, the presence of causal relationship between all the variables and GDP was found, running from the variables to GDP. We could thus say that past values of all the variables are useful in forecasting the future values of GDP.

IMPULSE RESPONSE FUNCTION (IRF)

Impulse Response Function (IRF) is one of the tools of innovation accounting which shows the response of a variable to a unit standard deviation shock or innovation to itself and other endogenous variables in the model. It shows the time path into the future of how a variable respond to a shock in itself and other variables in the model. The IRF graphs are presented below:

Fig. 1.0 Response of GDP to Shock in Internal Debt.

FIG. 1.0: RESPONSE OF GDP TO SHOCK IN INTERNAL DEBT.

Response of GDP to ID
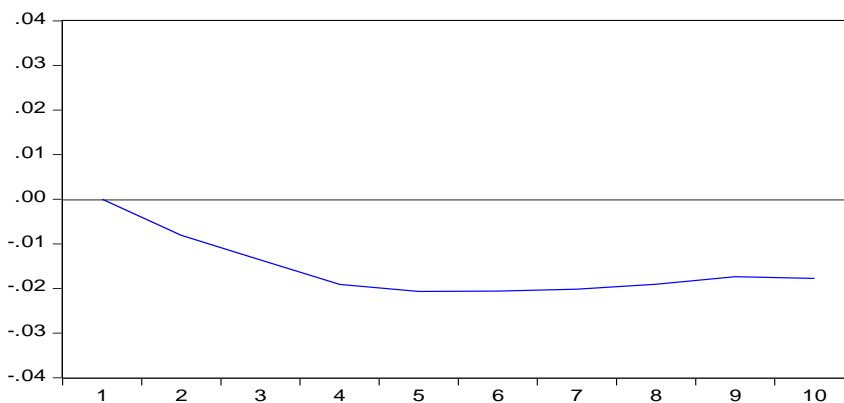
Figure 1.0 shows the response of GDP to innovations in Internal Debt. From the graph, it can be seen that GDP exhibited a negative response from the first period down to the tenth period. The response bottomed out around the fourth period. From the findings, it can be inferred that shocks in internal debt has a negative response in economic growth of India.

FIG. 2.0: RESPONSE OF GDP TO SHOCK IN EXTERNAL DEBT

Response of GDP to ED

Figure 2.0 present the response of GDP to shock in external debt. From the graph, it can be seen that the response was mild, though negative from the first period down to the thirds period, but afterwards, the response became more intense. The negative response bottomed out around the sixth period and reduced a little following through to the tenth period. This is an indication that shocks in external debt exerts a negative effect on economic growth of India.

FIG. 3.0: RESPONSE OF GDP TO SHOCK IN DEBT SERVICING
Response of GDP to DS
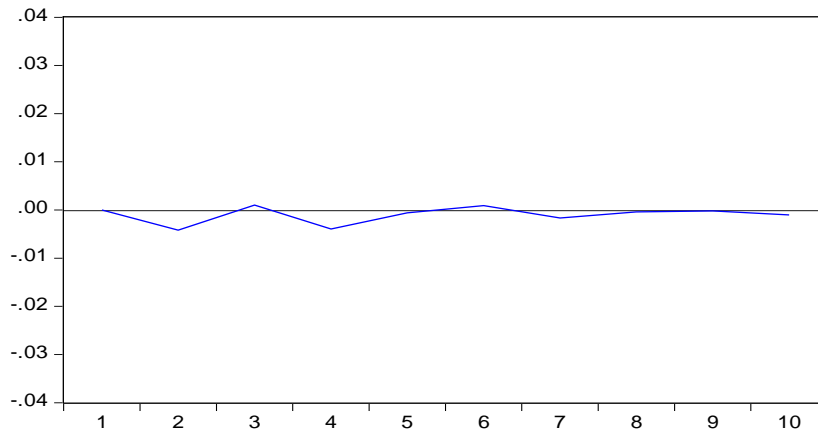
Figure 3.0 shows the response of GDP to shock in debt service payment. From the IRF plot, it can be seen that in the first period, the response was mild and negative, but returned to a zero response in the third period, and afterwards was negative up to the fifth period. From the fifth period to the tenth period, the response was virtually zero. The findings indicate that debt service payment has no much effect on economic growth, though at some instances it can have a mild negative effect.

FIG. 4.0: RESPONSE OF GDP TO SHOCK IN INVESTMENT
Response of GDP to INV
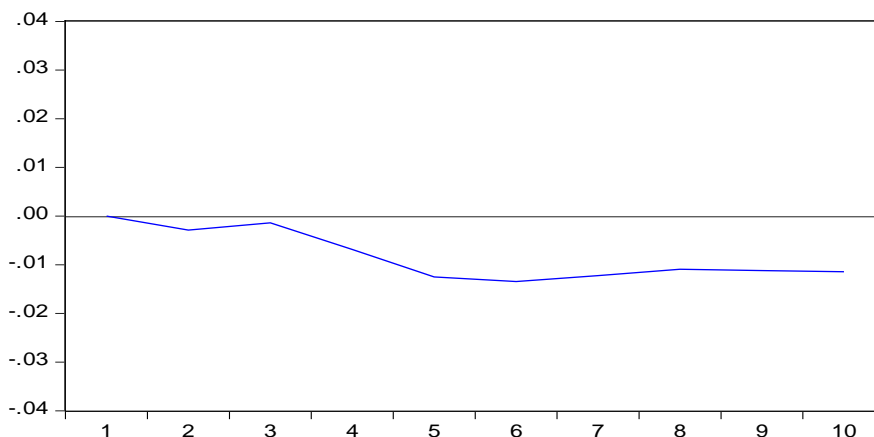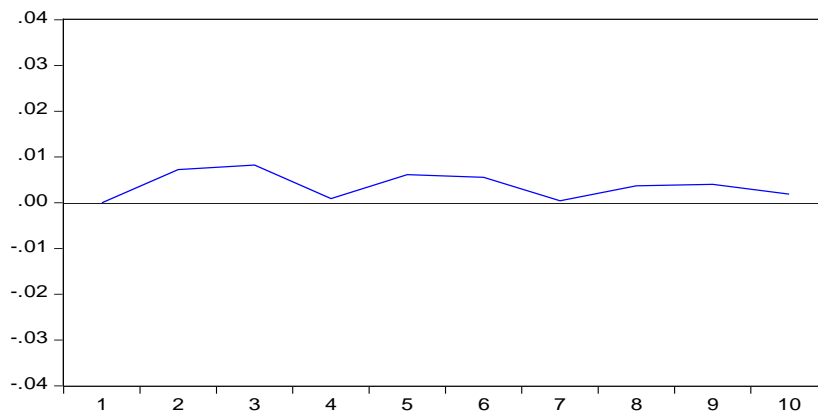

Figure 4.0 presents the response of GDP to shock in Investment. From the graph, it can be seen that response was positive from the first period to the fourth period, but in the fourth period, it became zero and afterwards began to rise and became zero again around the seven and again began to rise. The peak positive response was noticed around the third period. The finding is an indication that shock in investment has a positive impact on economic growth of India.

FORECAST ERROR VARIANCE DECOMPOSITION (FEVD)
This is another tool of innovation accounting. FEVD tries to show us how the errors in forecasting a variable are apportioned to itself and other variables in the model. In other words, FEVD shows us how the fluctuation or movement in a variable is attributed to its shock and shocks of other variables in the model. The FEVD result is presented in table 5.0.

TABLE 5.0: FORECAST ERROR VARIANCE DECOMPOSITION OF GDP

Period	S.E.	GDP	ID	ED	DS	INV
1	0.009157	100.0000	0.000000	0.000000	0.000000	0.000000
2	0.035451	88.56731	5.194012	0.659837	1.385997	4.192842
3	0.045501	80.68686	12.08832	0.495093	0.890435	5.839286
4	0.052242	69.69283	22.49885	2.100460	1.248076	4.459783
5	0.061140	61.27069	27.84428	5.700258	0.920167	4.264612
6	0.067678	54.50986	31.96453	8.604340	0.768905	4.152365
7	0.072018	49.04306	36.06755	10.48701	0.731621	3.670757
8	0.076522	46.40250	38.12888	11.33143	0.650896	3.486294
9	0.080454	44.67140	39.14188	12.19319	0.589424	3.404102
10	0.083770	42.54922	40.58561	13.11456	0.558595	3.192015

Source: Author's own computation.

Table 5.0 presents the result of FEVD. From the result, it can be seen that in the first period, all the errors in forecasting GDP is attributed to GDP alone, but with time passage down to the fifth period, only 54 percent forecast error in forecasting GDP is attributed to GDP, while ID, ED, INV and DS accounts for about 27, 5, 4 and 0.9 percent respectively. As at the tenth period, GDP accounted for about 42 percent of its forecast error, while ID accounted for about 40 percent, followed by ED which accounts for about 13 percent, then INV with 3 percent and lastly DS with 0.55 percent. This finding is an indication that ID has more impact on GDP, followed closely by ED, then INV and lastly DS.

CONCLUSION
From the finding of the study, it was evident that there exists a long run positive impact of both external and internal debt on economic growth of India. This finding corroborates the notion that there is no one-way definite relationship between public debt and economic growth, what makes public debt to have a positive or negative impact depends on the purpose for which the debt was used on. In the Indian case, the positive effect points to the fact that when funds are borrowed by the government, it is directed towards productive activities that in the long run spring economic growth. Investment was also found to have a positive effect on economic growth. This finding is in conformity to theory, as you increase your investment stock, it is quite natural that it is expected to yield positive effect on economic growth. Debt servicing in the Indian case refers to the spending of government in servicing external borrowing. Findings of the study showed

debt servicing as having a negative effect on economic growth, this is due to the fact that when you service debt, funds are been taken out of the economy, and in the same vein, funds that would have been used for investment and development purpose by the government are taken out of the economy, this is likely to pose a negative effect on economic growth.

Among others, the study recommends that since public borrowing in the Indian scenario is found to be positively related with economic growth, the government can float public borrowing to finance its deficits. However, the government should keep the borrowing minimal in order to avoid a burden overhang on the future generation. As an alternative to borrowing, the government should diversify its revenue base by harnessing and making more effective its taxation system.

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14. World Bank Development Indicators.

APPENDIX

TABLE 6.0

Breusch-Godfrey Serial Correlation LM Test			
F-statistic	0.955395	Prob. F(2,9)	0.4205
Obs*R-squared	4.027956	Prob. Chi-Square(2)	0.1335
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.526039	Prob. F(15,7)	0.2945
Obs*R-squared	17.61369	Prob. Chi-Square(15)	0.2835
Scaled explained SS	5.394375	Prob. Chi-Square(15)	0.9882

FIG. 5.0: JARQUE-BERA NORMALITY TEST
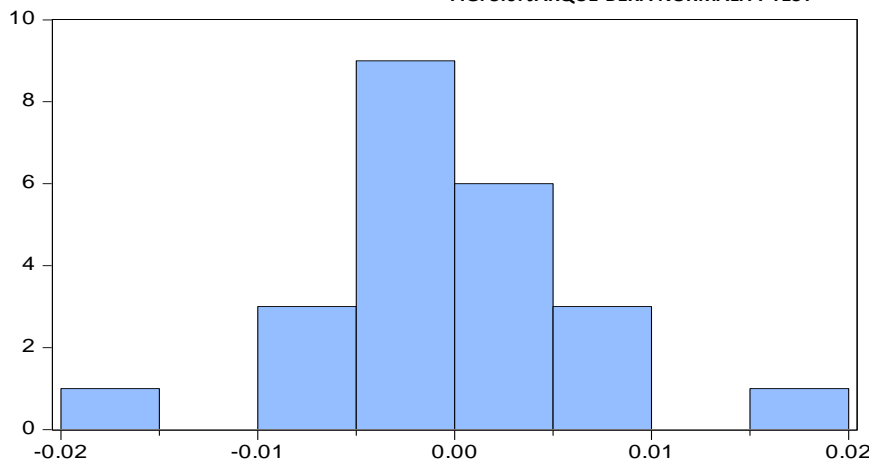
Series: Residuals
Sample 4 26
Observations 23

Mean	2.31e-17
Median	-0.000532
Maximum	0.015378
Minimum	-0.015803
Std. Dev.	0.006475
Skewness	0.089902
Kurtosis	3.677880
Jarque-Bera	0.471357
Probability	0.790035

THE ANALYSIS OF SPATIAL PRICE DYNAMICS OF PLANTAIN MARKETS IN CAMEROON

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ABSTRACT

The concept of food security implies regular and adequate market supply of foodstuffs. This regularity, which results in an equilibrium between supply and demand on the various markets, is more effective when there is a spatial integration between them. The absence of such integration can constitute a signal of food insecurity because the technique of arbitrage, which makes possible for the surplus areas to supply the deficit areas, would be difficult to realize. To facilitate the spatial integration of main foodstuffs markets (plantain, cassava, onion, rice) in Cameroon the authorities set up a market information system on to support the flow of information on prices, as well as the correction of market dysfunctions. In the particular case of the banana plantain, the issue is ever-increasing urban consumer prices. Is this the result of a lack of arbitrage or bad information circulation between the markets of consumption and the markets of production? This work tries to answer these questions by means of the econometric time series models. Results show a weak integration of the production and consumption markets resulting from the poor information circulation between the various markets. The concentration of information in the hands of certain traders, particularly the wholesalers, is preventing other wholesalers from penetrating the plantain marketing chain. The situation results in a weak supply to cities and consequently high consumer prices for plantain. To maintain urban food security in plantain, actions must be taken to reduce the asymmetry of information on the prices between consumption and production areas.

KEYWORDS
market integration, plantain markets, time series models, cameroon.

1.   INTRODUCTION
Bananas in general and plantains in particular are cultivated throughout the tropics and play a key role in the economy of many developing countries. In terms of gross production, bananas represent the world's fourth most important food crop after rice, wheat and corn.

They are both a staple food and an export crop. As a basic food product, bananas (including plantains and other types of cooking bananas) contribute to the food security of millions of people in most of the developing world, and when they are sold on the local markets, they constitute a source of employment and income for local populations.

As exports, they contribute to the economy of many low income food deficit countries including Ecuador, Honduras, Guatemala, Cameroon, Côte-d'Ivoire and the Philippines. In terms of volume and value, bananas are also the world's most exported fresh fruit (FAO, 2004).

In Cameroon, in particular in the two biggest cities, Douala and Yaoundé, plantain plays a significant role[1] in the food security of the populations. This role can be related to the macroeconomic context of structural adjustment policies (liberalization of the agricultural sector) and to the urbanization.

The population forecasts on the growth of the cities raise questions about their food Security through the regular supplies of foodstuffs in general and plantain in particular.

In a document on the sectoral orientation of the agricultural policy on the plantain in Cameroon, a diagnosis of the MINAGRI (Temple and Tentchou, 2000) stresses the importance of the questions of food security in years to come. The document reports the:
•   Degradation of food self-subsistence, which is highlighted by increasing food imports.
•   Appearance of chronic food insecurity areas in the country.
•   Continued increases of urban consumer real prices.

This report defined several objectives to support the realization of food security via the plantain subsector in Cameroon, specifically the need to increase the per capita production of the crop and especially to reduce the real prices to the urban consumers. Indeed, the data on prices (DSCN, SNAR Project) confirm that prices[2] of plantain have increased faster than inflation since 1994. In addition, the prices of plantain in certain rural zones are sometimes higher than those of the urban markets. This is the case for Ebolowa prices, which are higher than Yaounde's because of the attraction of the Libreville (Gabon) market for the marketable surplus of the South province (Temple and Engola, 1998).

Increased plantain prices in cities can be explained by several reasons, of which one of the most significant is the poor circulation of information on the various plantain markets, an issue that is more or less related to the lack of spatial integration of the various plantain markets in the country. A good spatial integration is a mark of good information circulation between the actors of the marketing network, which in turn makes it possible to accurately reflect the demand near the traders who can then carry out arbitrage[3] to guarantee food security by transferring the plantain from the surplus areas towards the deficit areas.

In a competitive economy, the actors react when they note that they can make profits buying in areas where the prices are low and selling in those where they are high. If the arbitrage is effective, the difference of the prices will equal the transaction costs and in this case, the markets are integrated (Lutz, 1994; Sexton et al., 1991).

This objective of developing a competitive market was at the origin of the government's setting up a food markets information system (FMIS) in 1993 to work with the emergence of conditions supporting the effective articulation between food supply and demand with an aim of stimulating the intervention of private operators. By reinforcing information circulation, the FMIS intends to remove

The various market dysfunctions so that competition is more dynamic and to promote the market's effectiveness by supporting the development of arbitrage (Shahidur Rashid, 2004).

The transmission of price information from the reference market towards the peripheral markets is faster when the markets are perfectly integrated. Among the strategies for guaranteeing food security in Cameroon, the spatial integration of the plantain markets is crucial because of the agro-food characteristics of the areas that supply the two biggest cities of the country. Indeed, the plantain market in Cameroon is structured mainly around these two urban poles, Yaoundé and Douala (Temple et al., 1996). These two poles of consumption are relatively independent of one another in their supply zones. Yaoundé (with approximately 1.5 million inhabitants), the policy and administrative capital of the country, is located at the heart of the principal cocoa plantation zone of Cameroon, whereas Douala constitutes the centre of industrial and commercial activity of the country. Its population is estimated at approximately 2 million inhabitants.

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[1] Plantain contributes 10–16% of monetary incomes (Temple et al., 1996) and approximately 11% to the calorie food (Varlet, 1993). In 1997, plantain contributed about 3% OF GDP. More than 500,000 producers and a huge number of the people are employed in the marketing chain of this product (Temple and Tentchou, 2000).

[2] That raising of prices causes an increase the food bills and a reduction of the monetary availability that the households devote to the health expenditure, or to the acquisition of manufactured consumer goods.

[3] Arbitrage is defined as the process of exchange between actors and the various segments of the market with the objective to draw an advantage from the differences in price exceeding the transaction costs (packing, storage, transformation, handling, costs of transport, etc.).

The success of a policy to reinforce food security in these two big cities depends on the force of the markets to transmit direction of price signals in the zones that supply them. Part of the food supply of Yaoundé is organized from the West (corn, tomato, bean, potato), but plantain, cassava and yam come mainly from Centre, South and East provinces. Douala is mainly supplied in food by the South-West, Littoral and West provinces.

RESEARCH ISSUES

Our aim in this work is to look into the objective of achieving food security – the reduction of the prices to the urban consumers – by analysing the spatial integration of plantain markets in Cameroon.

More especially, the study tries to answer the following questions: Are rising urban prices related to the fact that the markets are not integrated spatially? Is the transmission of price information faster between the urban markets and those of the rural markets? Or between the markets of the urban zones, in particular between Douala and Yaoundé? In other words, is the spatial integration of the plantain markets in Cameroon a reality? The remainder of the document is organized as follows: After this introduction, the paper presents the objectives and hypothesis of the research. The third section is devoted to a review of literature on the plantain subsector in Cameroon and the theory of the transmission of the prices and the market integration. Section 4 examines the methodological framework of the market integration tests and the price transmissions for an empirical work and presents the data used. Section 5 has the results and Section 6 concludes the paper.

OBJECTIVES AND HYPOTHESES OF THE RESEARCH

The general objective of this research is to analyse the spatial integration of plantain markets in Cameroon and to evaluate the extent of the transmission of the prices on these markets, in particular of the urban markets, towards the peripheral markets located in the rural zones. The aim is to understand why urban prices are high. More specifically, the study seeks:

- To analyse the long-run and short-run integration of plantain markets using tests of causality and cointegration.
- To evaluate the degree and the speed of adjustment of the prices to the long-run equilibrium.
- To evaluate if the transmission of the prices on the markets is symmetrical or asymmetrical.
- To achieve these goals, we formulate a certain number of hypotheses:
- H1: The central market of Douala or Yaoundé is cointegrated with each peripheral market that supplies it.
- H2: The price of each peripheral market is caused by that of the central market of Douala or Yaoundé.
- H3: The transmission of the prices of the central market of Douala or Yaoundé is asymmetrical.
- H4: The speed of adjustment of the prices to the long-run equilibrium is weak

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Considerable analytical work has been done on food security and related issues in general and plantain price aspects in particular. Similarly, theoretical frameworks on market integration regarding price dynamics abound in the literature. This section traces some of the developments in these areas that are especially relevant to this study.

LITERATURE REVIEW

Food security includes three components (FAO, 1996; FAO, 2006): availability, accessibility and affordability. That is, sufficient food supplies must exist, the supply must be stable in time and in space, and adequate food must be within the material and economic reach of everyone.

For Temple et al. (1998), the first component includes the food supply concept and supposes increases in production. The second component stresses the importance of the stability of the food supply, which can be threatened by various factors such as the instability of production, deficiencies of storage infrastructure and marketing systems, the inter annual and interregional price fluctuations, and cyclical fluctuations of supply and demand on the international markets. The third component recalls that the access to food is dependent on the availability of an income.

Considering the question of prices, which is the subject of the second component, several studies carried out in the plantain subsector in Cameroon analyse the impact of instability of plantain prices on urban food security (Bikoï and Yomi, 1998; Temple et al., 1998; Dury et al., 1998). The concept of instability relates to random shocks and other events to which the actors cannot allocate probabilities.

For Cameroon, the raw data on plantain prices give an account of a strong instability of prices per kilogramme (Temple et al., 1999). This instability is, by hypothesis, a source of food insecurity because of high trading margins: Consumers cannot envisage the quantity of plantain they will be able to acquire with their income from one day to another. Figure 1 illustrates the theoretical impact of the trading margin on the prices. The equilibrium price between supply *(S)* and demand *(D)* is at *P**. The increase in the trading margin *(M)* results in a reduction in the price on the production market (*PS* drops to *PS'*) and an increase in the price on the consumers' market (*PD* increases to *PD'*). These significant margins suggest the possibility that arbitrage between the consumption (Douala and Yaoundé) and production markets does not exist.

FIGURE 1: GRAPHICAL ILLUSTRATION OF IMPACT OF TRADING MARGIN ON PRICES
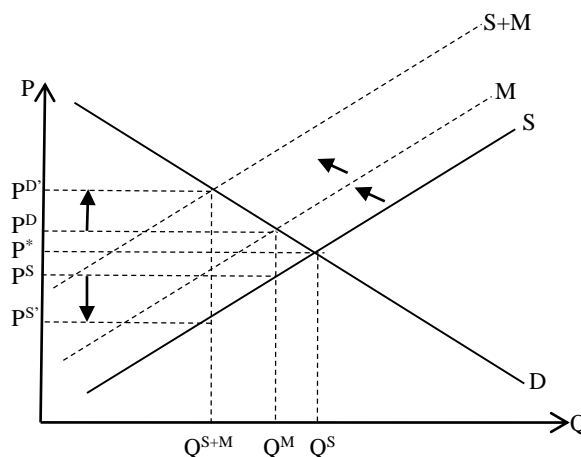
Source: By the author

Conscious of the impact of the prices on the food security of the urban populations in Cameroon, Bikoï and Yomi (1998) have analysed the food supply and distribution systems in the plantain marketing chain in order to identify the sources of instability and the strategies the economic agents adopt to manage this instability. To nourish the cities, the systems must forward to urban consumers the increasing quantities of plantain coming from ever more distant production areas. Between the moments these plantains are harvested and the point where they arrive in the shopping basket of the urban consumer, various actors are involved in a whole series of operations (collection, handling, transport, storage, wholesaler and retailer markets, transformation) that are reflected on the final price paid by the consumer. If these operations are not effective, the supply costs and the final price will be higher and the food security of urban consumers will be threatened. This implies that the improvement of the plantain supply and distribution system is needed.

To lead to this improvement, authors have analyses the supply networks of Yaoundé and Douala (Temple et al., 1998; Bikoï and Yomi, 1998) the price determinants and their instability (Temple et al., 1998; Nkendah and Akyeampong, 2002). Other research has looked into plantain consumption and quality standards (Dury et al., 1998; Temple et al., 1997) and the spatial integration between the production and consumption areas (Temple et al., 1997).

Concerning the supply markets, Temple et al. (1998) analyse the network serving Yaoundé and Bikoï and Yomi (1998) investigate the one for Douala. Both studies generally find two categories of markets: production markets generally located in rural areas and consumption markets generally located in urban areas. The reality of this distinction is not always obvious; however, because the majority of the markets have these two functions and the importance of one compared with the other varies according to the period of the year. For the Yaoundé supply network, three markets (Mfoundi, Essos, and Mvog-Mbi) have a wholesale function that supplies the consumption-blind markets of Elig Ejoa, Etoudi and Nkoleton. The Mokolo market plays both roles and is supplied by Okola and Nyong and Kéllé. For the Douala supply network, 70% of plantain comes from the South-West province starting from the production markets of Mile 20, Owe and Bole. New Deido, Bonassama and Dakar are the consumption markets. It is significant that marginal quantities of plantain sometimes come from the province markets of the South (Ebolowa), West (Bafoussam) with regard to Yaoundé and largely West for Douala.

Concerning the tendencies of price and the determinants of their instability, the studies stress that the prices are sometimes higher in the peripheral markets than on the central market. For example, the prices of plantain in Ebolowa are higher than those in Yaoundé because of the attraction exerted by the Gabonese demand in this area. The plantain production zone located between Ebolowa and the border supplies the Gabonese market more than that of Yaoundé.

The increased price gap between the two cities shows that the supply from South province is not able to satisfy simultaneously the sub regional demand and the local one. The price series analysed for the Yaoundé and Douala markets reveal an upward trend, which by hypothesis would translate into a quantitative supply deficit compared with the urban market demand. The instability of markets is expressed in the absence of a guarantee of purchase (or sale), an irregular supply and a relatively unstable price, thus increasing economic taking risk and disadvantaging investment.

The instability of the supply depends on several variables that concern at the same time the production and distribution systems and the socioeconomic situation of the operators. It is initially related to the concentration of planting dates between March and June. Planted at this period, to benefit from the first rains, the bananas will flower in March–April, which coincides with the season that tornados cause high falls of banana plants, as well as strong parasitic pressure of nematodes and disease. The repercussions of the falls of the banana plants will be felt between May and July, the period when the banana should have been harvested. The instability of the markets is also reinforced by deficiencies of equipment and infrastructure adapted to wholesale marketing (absence of equipment, storage, conservation, problems of hygiene and safety).

Studies on the consumption of plantain underline a drop in the availability of plantain per capital since 1970 because of the change of diet accompanying urbanization. Although plantain consumption has declined more strongly in the cities than in the rural areas, findings do not make it possible to check the law of Bennett[4]. Plantain remains a good with income elasticity near to 1. On the other hand, the modification of food preferences results in the need to increase quality and prospects for process and value added.

Research on the integration of plantain markets in Cameroon (Temple et al., 1996, 1998) is based on the price correlations of the production and consumption markets in the Yaoundé supply network with those of Douala. By taking reference from the market of Mokolo (Yaoundé) and the markets of Obala (40 km from Yaoundé) and Sa'a (70 km from Yaoundé), the authors show that the price differential is weak in periods of abundance but increases in a significant way in periods of shortage with regard to the Yaoundé supply network. The economic information circulation and the transaction costs would be thus by hypothesis be more significant for the period of abundance. With regard to the Douala supply network, the prices do not reveal any significant correlation between the various physical production markets, or between the producer prices and the consumer prices.

The authors note that there are no significant correlations between the prices of the wholesale production markets. This finding is in contradiction with the qualitative data on the spatial organization of the markets, which would validate the existence of good information circulation and strong competition. Indeed, the way in which the production markets follow one another in time shows how the calendar constitutes a means to circulate information between the various areas of production that supply Douala. Thus, the market takes place on Monday in Miles 20 (120 km from Douala); Tuesday in Bole (140 km from Douala); Wednesday in Owe (80 km Douala); Thursday in the crossroads Penda-Mboko (50 km from Douala) and Friday in Muyuka (45 km from Douala). The market day is thus moved through the week from Monday to Friday.

This rotation allows producers to plan for the passage of the purchasers and thus ensures an economic information circulation on the wholesale consumption markets. In conclusion, when the correlations of price are considered, the production markets are not integrated into the market of reference, which is Douala, but their spatial organization allows a good information circulation.

THEORETICAL FRAMEWORK

At the theoretical level, two markets engaged in the trade are said to be integrated in space when the difference in price between them is equal to the cost of transfer (Baulch, 1997). Many studies have been carried out to test the spatial integration of agricultural markets. These integration tests are often seen as a way of testing the effectiveness and competitiveness of the markets. However, spatial integration is not sufficient to conclude either Paretian effectiveness of a competing equilibrium or a perfect competitiveness of markets (Lutz, 1994; Sexton et al., 1991).

In general, two approaches are used to test the integration of the markets: an approach based on the calculation of the correlation coefficients and one involving the estimation of a regression model.

The first approach is largely used in the literature (Farruk, 1970; Lele, 1971). The limit of this approach is that it is founded on strong hypotheses: the permanence of commercial flows between the markets, the fixity of the costs of transfer, and the fact that on a market, the prices are supposed to be given in an exogenic way (Mohammad and al. 1998). Another limit of this approach is that the coefficient can be high and even equal to 1, even when no trade exists between the two markets. This can be the case if the prices in the two markets are affected by the same factors – inflation and seasonal movements (Timmer, 1974; Golleti and Babu, 1994; Dimitris, 1995).

In contrast, the approach based on the estimation of a regression model is founded on less strong hypotheses: the hypothesis of linearity between the prices of the various markets, the fact of being unaware of the transfer costs and the inability of regression models to insulate as for the first approach, and the effects of the synchronous factors on the markets, in particular inflation and seasonality. In spite of these limits, the regression method is more appropriate to the analysis of spatial integration of the markets than the correlation coefficients (Mohammad and al. 1998).

The regression method comprises a static approach and a dynamic approach. The dynamic approach has the advantage of allowing the distinction between the concepts of short-run integration (instantaneous integration) and long-run integration. This distinction is significant insofar as it is less probable that the trade between markets adjusts in an instantaneous way to a spatial difference of the prices. One would be a little reticent to accept the idea of short-run integration of as a concept of equilibrium. With time, however, short-run adjustments can converge towards such equilibrium. It is according to this framework that Ravallion (1986) studied the spatial integration of the markets in Bangladesh.

Today, the majority of the studies use the econometric techniques of time series to test the integration of the markets. The development of these techniques, which include the co integration and ferror correction models, became the standard tools for analysing spatial relations of the markets, thus replacing the old empirical tools such as regression and correlation coefficients. Time series analysis has also been criticized as being not very reliable (Blauch, 1997; Barrett and Li, 2002).

The debate on methodology to test market integration and the transmission of prices has a relatively long history that starts with Harriss (1979). Blauch (1997) examines the discussion and the statistical performance of the econometric tests for market integration. Primarily, the linear tests for market integration and price transmission are described as rough and inadequate (Blauch, 1997; McNew, 1996; McNew and Fackler, 1997; Fackler and Goodwin, 2002; Barrett and Li, 2002).

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[4] "The law of Bennett describes exchanges in various basic calorie foods depending on income growth: the basic Component calorie is partially replaced by other food calories and the share of food calories in the total budget decreases (Grossens, 1998).

Factors making the linear models non useful and vague are: the non linearity in the relations of the market which result from the conditions of arbitrage, the non synchronized price cycles, the discontinuous trade and the non stationary transfer costs.

Although time series models for analysing market integration are criticized, it is significant to note that they provide excellent results concerning the question of integration and the transmission of the prices if a methodological framework of suitable tests is used and results are interpreted correctly.

Moreover, the time series models require fewer data than other econometric models, an advantage considering the availability of price series date in the developing countries (Rapsomanikis et al., 2003).

These models found a rather vast field of application in the world in general and in Africa in Particular. All in all, the models were used to study the impact of trade liberalization on the spatial integration of markets for agricultural produce like corn in Malawi (Goletti and Babu, 1994) and in Togo (Yovo, 2004), teff in Ethiopia (Dercon, 1995), sorghum in Burkina Faso (Bassolet and Lutz, 1998) and rice in Indonesia (Mohammad et al., 1998). The conclusions of these studies are mixed: positive results for commercial liberalization on market integration (Goletti and Babu), negative results (Bassolet and Lutz, 1198; Mohammad et al., 1998) or mitigated results (Yovo, 2004).

3. METHODOLOGY (MODELS AND DATA)

A lot of this section was drawn from Rapsomanikis et al. (2003). Given prices for a commodity in two spatially separated markets, p1t and p2t, the Law of One Price (Protopapadakis and Stoll, 1986; Ardeni, 1989; Baffes, 1991) postulates that at all points of time, allowing for transfer costs c, for transporting the commodity from market 1 to market 2, the relationship between the prices is as follows:

$$p1t = p2t + c \qquad (1)$$

If a relationship between two prices, such as (1), holds, the markets can be said to be integrated. In general, spatial arbitrage is expected to ensure that prices of a commodity will differ by an amount that is at most equal to the transfer costs, with the relationship between the prices being identified as the following inequality:

$$p2t - p1t - c \qquad (2)$$

Which is the condition of the space arbitrage (Fackler and Goodwin, 2002)? More recently, two newer methods that focus directly on spatial market efficiency have been employed. The first is threshold auto-regression, which recognizes possible "thresholds" in how spatial prices respond to shocks, depending on whether the shock is large enough to raise spatial price differentials above transfer cost (Goodwin and Piggott, 2001). The second newer method is the parity bounds model (PBM), which estimates the probability of being in spatial price regimes that are consistent with the equilibrium notion that all spatial arbitrage opportunities are being exploited (Enke, 1951; Samuelson, 1964; Takayama and Judge, 1971). The PMB has been extended (Negassa and Myers, 2007) to allow gradual probability changes over time in different trade regimes. Three mutually exclusive regimes can be identified on the basis of the relative sizes of spatial price differentials and transfer costs: in regime 1, the spatial price differential is equal to transfer cost; in regime 2, the spatial price differential is less than the transfer cost; and in regime 3 the spatial price differential is greater than the transfer cost. These two new methods focus on spatial market efficiency, while our objective is to investigate price transmission related to market integration.

The concept of price transmission can be thought of as being based on three notions, or components (Prakash, 1998; Balcombe and Morisson, 2002). These are:

- Co-movement and completeness of adjustment, which implies that changes in prices in one market are fully transmitted to the other at all points of time;
- Dynamics and speed of adjustment, which implies the process by, and rate at which,
- Changes in prices in one market are filtered to the other market or levels; and,
- Asymmetry of response, which implies that upward and downward movements in the price in one market are symmetrically or asymmetrically transmitted to the other. Both the extent of completeness and the speed of the adjustment can be asymmetric.

In this context, complete price transmission between two spatially separated markets is defined as a situation in which changes in one price are completely and instantaneously transmitted to the other price, as postulated by the Law of One Price represented by relationship (1). In this case, spatially separated markets are integrated. In addition, this definition implies that if price changes are not passed through instantaneously, but after some time, price transmission is incomplete in the short run, but complete in the long run, as implied by the spatial arbitrage condition. The distinction between short-run and long-run price transmission is important and the speed by which prices adjust to their long-run relationship is essential in understanding the extent to which markets are integrated in the short run. Changes in the price at one market may need some time to be transmitted to other markets for various reasons, such as policies, the number of stages in marketing and the corresponding contractual arrangements between economic agents, storage and inventory holding, delays caused in transportation or processing, and so on.

Many researchers have worked on the issue of asymmetric price responses utilizing the asymmetric error correction model developed by Granger and Lee (1989) or threshold co integration models proposed by Enders and Granger (1998). Abdulai (2000) provides a comprehensive discussion on the rationale behind spatial asymmetric price response. In addition to policies, market power is often cited as a source of asymmetries (Scherer and Ross, 1990).

Industry concentration and imperfectly competitive behaviour beyond the farm gate implies that wholesalers, or middlemen with power over price, may exercise pricing strategies that result in a slow and incomplete transmission of the price changes at the peripheral markets.

A certain number of time series techniques can be used to examine each component of the transmission of the prices and, thus, to evaluate its importance finally. These various techniques are:

- Co integration
- Causality
- Error correction mechanism
- Symmetry

The concept of co integration (Granger, 1981) and methods to estimate a relation of co integration or a system (Engle and Granger, 1987; Johansen, 1988, 1991, 1995) provide a framework for estimating and testing the relations of long-run equilibrium among the variables. The co integration was largely discussed and applied in literature examined by Maddala and Kim (1998). If two prices in spatially separated markets (or different levels of the supply chain), *1t* and *p2t,* contain stochastic trends and are integrated of the same order, say I(*d*), the prices are said to be co integrated if:

$$p_{1t} - \beta p_{2t} = u_t \qquad (3)$$

is I (0).

Where is the vector of co integration (in the case of two variables is a scalar), while Equation 3 is known as regression of co integration. The co integration parameter _ measures the long-run equilibrium relationship between the two prices. This parameter was sometimes interpreted as "the elasticity of the transmission of the prices", when the series of price are converted into logarithms.

The relation can be estimated using ordinary least squares (OLS) (Engle and Granger, 1987) or the maximum likelihood method with complete information developed by Johansen (1988, 1991) and generally met in the literature. More specifically, *p1t* and *p2t* are co integrated if there is a linear combination between them. The co integration implies that the two series of price move narrowly together in the long run, although in the short run, they can diverge, and thus conforms with the concept of market integration. Engle and Granger test the null of no co integration by applying unit root tests on *û*t. Johansen derived the distribution of two test statistics for the null of no cointegration referred to as the trace and the eigenvalue tests.

In addition to formally testing market integration, the concept of co integration has an important implication, represented by the Granger representation theorem (Engle and Granger, 1987). According to this theorem, if two trending, say I (1), variables are co integrated, their relationship may be validly described by an error correction model (ECM), and vice versa (see also brief description in Appendix A). In the case that prices from two spatial separated markets, *p1t* and *p2t*, are co integrated, the vector error correction (or VECM) representation is:

$$\begin{pmatrix} \Delta P_{1t} \\ \Delta P_{2t} \end{pmatrix} = \begin{pmatrix} \mu_1 \\ \mu_2 \end{pmatrix} + \begin{pmatrix} \propto_1 \\ \propto_2 \end{pmatrix} (P_{1t\text{-}l} - \beta P_{2t-1} \quad + A_2 \begin{pmatrix} \Delta P_{u-1} \\ \Delta P_{2i-1t} \end{pmatrix} + \dots + A_i \begin{pmatrix} \Delta P_{u-i} \\ \Delta P_{2t-i} \end{pmatrix} + \begin{pmatrix} \nu_{1t} \\ \nu_{2t} \end{pmatrix} \qquad (4)$$

Where *v1t* and *v2t* are *iid* disturbances with zero mean constant and finite variance, while the operator denotes that the I(1) variables have been differenced in order to achieve stationarity.

The inclusion of the levels of the variables, *p1t* and *p2t* alongside their differenced terms _p1t and _p2t is central to the concept of the ECM. Parameters contained in matrixes *A2...Ak*, measure the short run effects, while _ is the co integrating parameter that characterizes the long-run equilibrium relationship between the two prices. The levels of the variables enter the ECM combined as the single entity *(p1t-1 – _p2t-1),* which reflects the errors or any divergence from this equilibrium, and corresponds to the lagged error term of Equation 3. The vector (α1/α2) contains parameters, usually, *0< | α 1 | < 1,* i=1,2, commonly called error correction coefficients, that measure the extent of Corrections of the errors that the market initiates by adjusting *p1t* and *p2t* towards restoring the long-run equilibrium relationship.

The speed with which the market returns to its equilibrium depends on the proximity of _i to one. In this context, short-run adjustments are directed by, and consistent with, the long-run equilibrium relationship, allowing the researcher to assess the speed of adjustment that shapes the relationship between the two prices. Sharma (2002), in a paper aiming to assess market integration between several Asian wheat markets and the world market, estimated ECMs and conducted an extensive policy review.

His findings suggest that in countries such as Pakistan, India, Sri Lanka and Indonesia, where government intervenes in the domestic market through various policy instruments, the error correction coefficients) estimated to lie between -0.01 and -0.07) indicate a slow adjustment to the long-run relationship.

Another important implication of co integration and the error correction representation is that co integration between two variables implies the existence of causality (in the Granger sense) between them in at least one direction (Granger, 1988; Kouassi et al., 2004, 2006). The definition of causality and its relevance in the context of market integration and price transmission warrants some discussion. Co integration itself cannot be used to make inferences about the direction of causation between the variables, and thus causality tests are necessary. Granger (1969) proposed an empirical definition of causality based only on its forecasting content: if *xt* causes *yt* then *yt*+1 is better forecast if the information in *xt* is used, since there will be a smaller variance of forecast error. This definition has caused considerable controversy in the literature (see for example Pagan, 1989) as it really indicates precedence, rather than the instantaneous causality that most economists profess.

Nevertheless, if two markets are integrated, the price in one market, *p1*, would commonly be found to Granger-cause the price in the other market, *p2* and vice versa. Therefore, Granger causality10 provides additional evidence as to whether, and in which direction, price transmission is occurring between two series.

The hypothesis that *p1* Granger-causes *p2* and vice versa can be assessed within a vector auto regression (VAR) framework (see Appendix A) by testing the null that the coefficients of a subset of these jointly determined variables, the lagged *p1* terms, are equal to zero. In addition, Granger (1988) proposed a test for long-run Granger causality within the context of the error correction representation of a co integrated system of variables. The presence and direction of Granger causality in the long run can be assessed by testing the null that the error correction coefficients _1 and _2 in the VECM presented by (3) are equal to zero, a test that also reveals weak exogeneity in the econometric sense. In more detail, under _1 = 0, _2 _ 0, p2 Granger-causes p1 in the long run; under _2 = 0, _1 _ 0, p1 Granger-causes *p2* in the long run; and under _1 _ 0, _2 _ 0, both series Granger-cause each other in the long run.

The error correction representation also provides a framework for testing for asymmetric and non linear adjustment to long-run equilibrium. Granger and Lee (1989) proposed an asymmetric ECM (AECM) where the speed of the adjustment of the endogenous variable depends on whether the Deviation from the long-run equilibrium is positive or negative. The single asymmetric ECM is specified as follows:

$$\Delta P_{it} = \mu_i + \alpha_i^+(P_{2t-1} + \beta p_{2t-1})^+ + \alpha_i^+(P_{2t-1} + \beta p_{2t-1})^- + \sum_{i=0}^{t} \delta_i \Delta p_{2t-i} + \sum_{i=0}^{t} \gamma_i \Delta p_{2t-i} + \nu_{it} \quad (5)$$

1*t* 1 2*t* 1 *p* β*p* reflecting positive and negative disequilibrium, respectively. Within this context,

Asymmetry occurs in the event that positive and negative divergences from the long-run equilibrium between *p1t* and *p2t* result in changes in *p1t* that have different magnitudes. Therefore, asymmetric transmission implies that _1+ is not equal to _1

The null of symmetry against the alternative Hypothesis that adjustment is asymmetric is tested by imposing the equality restriction _1+ = _1-. In addition, short-run asymmetric transmission can also be tested by decomposing P2t into two parts reflecting price rises and price falls, and testing for equality of the corresponding short-run coefficients. Asymmetric adjustment can be also tested by following Prakash et al. (2001).

This method involves the assignment of a dummy variable, *d*=0, to all the parameters of the underlying autoregressive distributed lag (ADL) if there is positive disequilibrium and *d*=1 if there is negative disequilibrium. Asymmetric adjustment to the long-run equilibrium is then tested by imposing and testing zero restrictions on the dummies' parameters.

EMPIRICAL STEPS

In view of the foregoing discussion on the empirical tools that can be used to assess the notional Components of market integration and price transmission, we proceed to apply the proposed time series techniques on ten plantain markets in Cameroon according to the sequence represented in Figure2 (Rapsomanikis et al., 2003). The way in which the tests on the components of the transmission have been ordered is not neutral and is to some extent ad hoc. The sequences of the tests are as follows:

1) For each pair of prices, in particular between the central market (Douala or Yaoundé) and each peripheral market that supplies it, we start by testing for the order of integration for each price series utilizing the augmented Dickey-Fuller test (Dickey and Fuller, 1979) and the Phillips– Perron tests (Phillips and Perron, 1988). In the event that the series have a different order of integration, we conclude that the markets are not integrated. In the case that the series are found to be I(0), we resort to assessing the dynamics of the relationship by means of the autoregressive distributed lag (ADL) models. We test for Granger causality within a vector auto regression (VAR) framework to assess price transmission between the markets or along the supply chain.11

2) In the event that the tests indicate that the series are integrated of the same order (say I(1)), we proceed by testing the null of non co integration against the alternative hypothesis of one co integrating vector using the Johansen procedure (Johansen 1988, 1991), or we test for the null of non co integration following Engle and Granger (1987). Evidence against the null of no co integration is taken to indicate that prices co-move and that markets are integrated. In the event that the null of non co integration is not rejected, we conclude that the markets are not integrated, and/or that we are unable to conclude that price transmission along the supply chain is complete.

3) In the event that tests indicate that the price series are co integrated, we proceed by focusing on the error correction representation, in the form of a vector error correction model (VECM) and examining the short run dynamics, the speed of adjustment and the direction of Granger causality in the short or the long run following Granger (1969, 1988).

4) At the next stage, based on our results on the direction of causality, we specify AECMs and test for the null of symmetry following Granger and Lee (1989) or Prakash et al. (2001).

5) Finally, we discuss the results and comment on the nature of price transmission and market Integration.

THE DATA USED

The data used in this study are the monthly nominal plantain prices in kilograms (CFAF/kg) from April 1993 to December 2000. That is to say there were 77 observations for each price series. These data were collected by MINAGRI within the framework of the food market information system project (FMIS) and were supplemented by observations of the markets by CARBAP (African Research Centre on Banana and Plantain) as well as the Direction of Statistics and National Accounting (DSCN). These three data sources are comparable: they were observed over the same period and the price series are based on the same measuring unit (CFAF/kg).

As we have seen, existing studies (Temple et al., 1996) find the plantain marketing chain in Cameroon to be structured around the two large cities: Yaoundé, the political capital, and Douala, the economic capital, which will be identified as the urban markets in this analysis. Yaoundé is supplied starting from the rural markets located in Centre province (Bafia, Obala), South (Ebolowa), West (Bafoussam) and North-West (Bamenda). Douala is supplied starting from the rural markets of the provinces of South-West (Miles 20, Muyuka), Littoral (Penda-Mboko), West (Bafoussam) and North- West (Bamenda). Consequently, Douala and Yaoundé and the rural markets of the Centre, South- West and Littoral provinces are retained as the markets studied; that is to say on the whole ten of which a geographical description and of their operation is given by Temple et al. (1996; 1998). See Appendix B for graphs of the price series.

The markets of Douala and Yaoundé are the consumption markets and will be regarded as the reference markets. The other markets are the production markets and are considered in the analysis as the peripheral markets.

The choice of these markets is based on the availability of the data on plantain prices and the existence of relationships of real exchange of plantain between these "rural" markets and the urban markets of Yaoundé and Douala. 12

FIGURE 2: METHODOLOGY SEQUENCES OF TEST OF PLANTAIN MARKET INTEGRATION IN CAMEROON
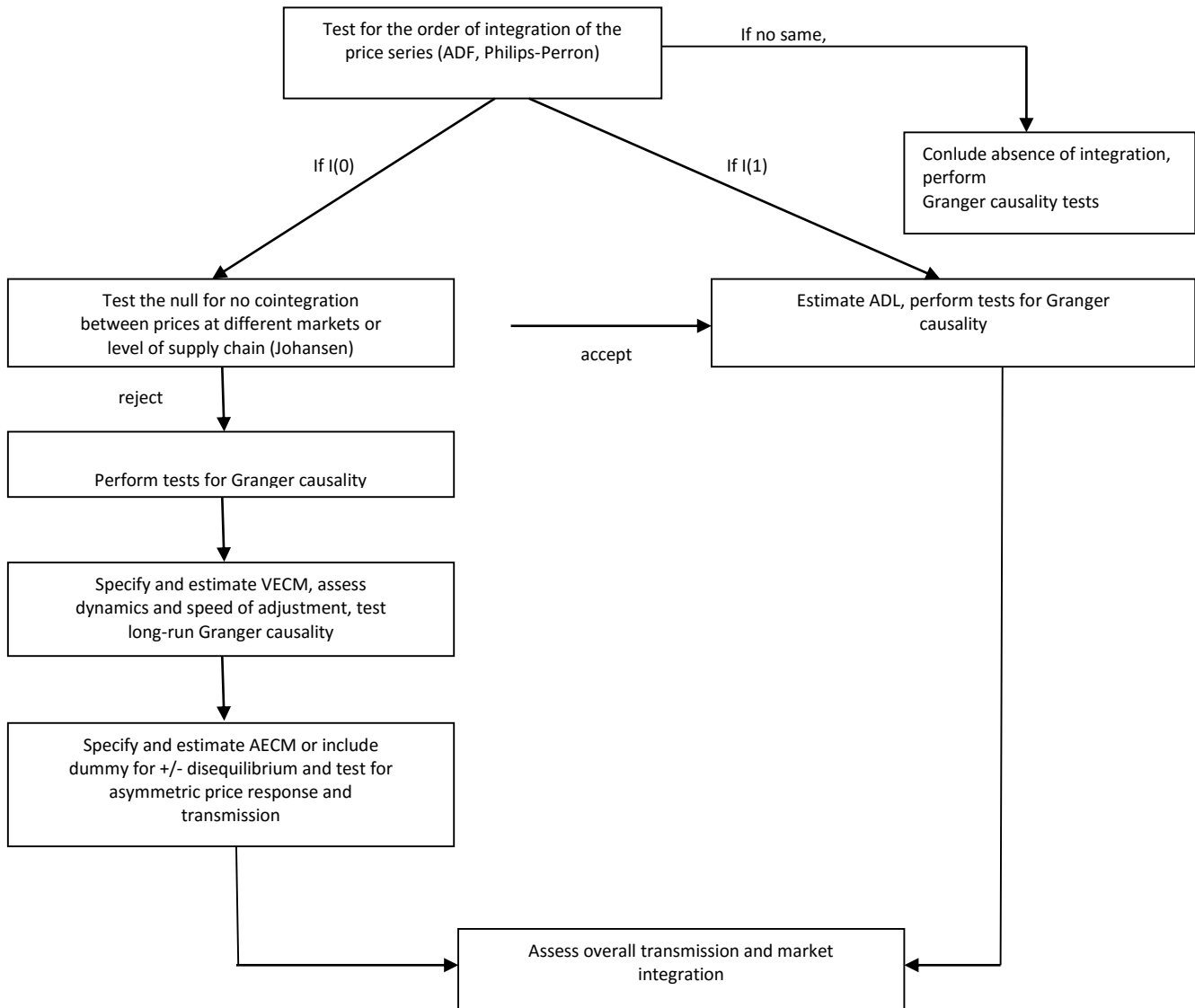
Source : Rapsomanikis et al., 2003.

4. RESULTS

Our objective in this work is to analyse the process of integration of the plantain markets in Cameroon in order to understand why consumer prices are high in the urban areas and endanger the food security of the townspeople. A descriptive analysis of the data aiming at characterizing the seasonality of prices and the strategies of the actors, the structure of the markets, and the pricing is presented below, followed by the econometric analysis.

DESCRIPTIVE ANALYSIS

How are prices formed on the plantain markets in Cameroon? According to the market observatory data of CARBAP (Bikoï and Yomi, 1998), the more highlighted characteristic of plantain market in Cameroon is undoubtedly the great number of sellers and purchasers, particularly at retail level. The operations of purchase and sale proceed on open spaces. The market infrastructure of (roads, hangars, storerooms) is generally poor and inadequate. The transparency of the market is often blocked by the heterogeneity of the measuring instruments, and by an information system based on personal relationships between people. The principal actors in the marketing chain include producers, traders and consumers. One of the characteristics of the plantain marketing chain is the great diversity of traders– wholesalers, semi-wholesalers, commission agents (collectors and conveyors) and retailers.

The plantain market also includes associations and wholesalers with strong financial and material capacities to mobilize large volumes of the product and a significant labour force on the collection areas.

Prices are seldom formed in a free way by bargaining between sellers and buyers. Rather, the prices that result from purchase and sale operations are based on personalized relationships, in particular on the production markets located in the rural areas. In their negotiation, the purchasers are generally guided by the former price and the level of market demand, gauged by the number of purchasers present. In conclusion, one can say that the structure of the plantain markets in Cameroon is at the same time competitive (consumption markets in Douala and Yaoundé) where prices are generally close to those of the competition and oligopolistic (markets of production located in the rural areas) where prices are strongly based on personal relationships, on the practices of purchase and credit sale, and on the barriers aimed at preventing the entry of new traders.

To understand the raising of prices to the urban consumers during the year in the two reference markets (Douala and Yaoundé), we analyse the seasonality and inter-annual tendency of prices.

With some exceptions, there is a seasonal increase in the prices from April (Yaoundé) and March (Douala) that reached a climax in September and August before returning to the normal in October, November and December. The principal reason for this price variation is the variation observed in the level of supply. The

prices are higher in periods of insufficiency of the supply on the markets (May, June, July, August and September) and low in periods of abundance (remainder of the year).

Over the period considered, the Douala price of plantain in nominal value rose from 83 CFAF/kg in 1993 to 124 CFAF/kg in 2000, an increase of 49% in seven years. In real value, this increase is 35.4%. In Yaoundé, the price per kilogram increased from 61 to 98 CFAF in seven years – an increase of 60% in nominal value and 27.6% in real value (Table 1). In addition, plantain prices increased more quickly than those of other foods (Temple et al., 2002). According to same authors, the difference of the prices between the consumption and production markets noted that the trading margins increased by 40% in five years in Cameroon. The explanation for these increases relates to the increase in the costs of transport and the dysfunctions of market.

TABLE 1: VARIATION OF THE PRICES OVER THE PERIOD OF STUDY (1993 TO 2000)

Towns	Nominal prices		Variations in percentage	
	Price of 1993	Price of 2000	Nominal value	Real value
Douala	83 CFAF / kg	124 CFAF / kg	49%	35.4 %
Yaoundé	61 CFAF / kg	98 CFAF / kg	60%	27.6 %

* The selected rates of inflation are those of the DSCN and are 1.7 and 5.4, respectively, in Douala and Yaoundé in 1999. We have supposed that these rates remained constant during the period considered.

Source: Calculations by the authors.

In terms of transport, the devaluation of the CFAF in 1994 and the multiple rises of fuel prices have increased the transport cost, which is reflected in the current prices of the plantain to the urban consumers. Works on transport in Cameroon (Ongolo Zogo, 2002 and Ongolo Zogo and Fosah, 2005) underline its important role in the process of spatial mobility of the resources in the whole country.

This important role of the transport sector calls for the attention of government to make it more Competitive through privatization. The search for an optimal price of transport bearable by the economic agents remains a challenge to be surmounted and is the subject of research now under way (Ongolo Zogo and Fosah, 2005).

As for the dysfunction of markets, the information flow between the consumption and production are as if it's done badly because some production areas are locked and gone off into the distance. It follows that some wholesalers may benefit from this situation to collect significant margins and block the arbitrage process. The role of arbitrage (or the lack thereof) is discussed in the following section.15

ECONOMETRIC ANALYSIS

We apply our methodological framework of the tests to Cameroon's plantain markets. The integration of the production and consumption markets of Douala and Yaoundé are analysed to understand why plantain prices in urban markets continues to increase.

First, we test the order of integration by performing the augmented Dickey-Fuller (ADF) test (Dickey and Fuller, 1979) and the test of Phillips and Perron (1988). The ADF is most generally used, but sometimes it presents limits, particularly in the presence of autocorrelation. Dickey and Fuller correct the temporal correlation by including the lagged differences in the regression; even so, the size and the power of ADF proved to be sensitive to the number of these terms of difference. The Phillips– Perron tests are nonparametric tests of the null assumption for the unit root and are considered more powerful, because they use the consistent estimators of the variance.

Table 2: presents the statistics of the unit root test. The ADF test is carried out while including up to 12 lagged terms of difference in the regression; we use the Akaike information criterion (AIC) to choose the suitable number of lags. The ADF statistics presented in Table 2 correspond to the regression that minimized the AIC. On the basis of the ADF and Phillips–Perron tests, we accept the null assumption of non stationary for all the series of price except Bamenda and Ebolowa. Once applied, the first difference test on the non stationary series in level, the two tests lead to the rejection of the null assumption, indicating that all the price series are integrated of order one or I(1).

TABLE 2: UNIT ROOT TESTS OF THE PRICE SERIES (SEE EQUATIONS IN APPENDIX A)

Series	ADF (trend)		ADF (without trend)		Phillips-Perron	
	Level	Differences	Level	Differences	Level	Differences
Douala	-1.181[6]	-8.120[1]	-1.134[6]	-9.181[1]	-2.886[6]	-10.152[1]
Bamenda	-10.4[5]	---	-7.541[5]	---	-5.025[5]	---
Obala	-2.885[5]	-7.352[1]	-1.786[5]	-11.971[1]	-2.885[5]	-13.766[1]
Bafoussam	-1.852[5]	-8.521[1]	-1.005[5]	-8.052[1]	-1.652[5]	-11.063[1]
Bafia	-1.751[5]	-9.762[1]	-1.772[5]	-10.210[1]	-1.02[5]	-9.226[1]
Yaoundé	-2.035[6]	-12.455[1]	-2.145[6]	-11.554[1]	-1.352[6]	-14.881[1]
Ebolowa	-8.521[5]	---	-5.458[5]	---	-4.858[5]	---
Miles 20	-2.027[3]	-10.595[1]	-1.395[3]	-13.765[1]	-1.321[3]	-12.762[1]
Penda-Mboko	-1.520[5]	-8.025[1]	-2.761[5]	-9.502[1]	-2.681[5]	-12.493[1]
Muyuka	-2.102[4]	-10.112[1]	-1.052[4]	-7.512[1]	-1.235[4]	-10.594[1]

The values in brackets represent the number of necessary delays to get a white noise. The critic values of Mackinnon test for ADF are (-3.52) to 1%; (-2.9) to 5% and (-2,58) to 10%. The critical values of Perron are (- 4.48) to 1% and (-4.17) to 5%. One tests H0: the series is non stationary. If the ADF statistic is higher than the critic value, one accepts H0 for the existence of a unit root.

Source: Calculation by the authors.

According to the methodology summarized in Figure 2, for each integrated rural market in order one or I (1), we test the co integration with the market of reference (Douala or Yaoundé), which are also I (1), by using the Johansen approach; then we test the Granger causality and estimate an error correction model (ECM) in order to evaluate the dynamics and the speed of the adjustment. The asymmetrical adjustment is then tested following the approach of Granger and Lee (1989). On all the markets we choose the number of lags for VAR and ECM models by means of the AIC.

The results of the Johansen co integration tests are presented in Table 3. There is a strong indication that the price of plantain in Douala and the prices on its peripheral supply markets of Miles 20, Muyuka and Penda Mboko are co integrated. The market price of Yaoundé is also co integrated with each market of production that supplies it (Bafia and Obala). For all the co integrated markets, the coefficients of the vector of co integration are significant. The Johansen test makes it possible to reject the null hypothesis of non co integration of the Douala or Yaoundé market with those of the markets of Bafoussam and Ebolowa, respectively. In addition, the two reference markets of Douala and Yaoundé are not co integrated. This result confirms the direct observations of exchange between these two big towns of consumption. The two cities, only 260 km apart by a highway, do not exchange plantain with each other. The co integration indicates that the peripheral markets are integrated to the market of Douala or Yaoundé and that there is a Granger causality in at least one direction.

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TABLE 3: TESTS OF CO INTEGRATION OF JOHANSEN BETWEEN THE MARKET OF REFERENCE (DOUALA OR YAOUNDÉ) AND EACH PERIPHERAL MARKET THAT SUPPLIES IT

Markets	r	Trace statistic λtrace	Critical value of Osterwald-Lenun (1992) 5%	Co integration vector	
				Price	Parameters
Douala and Miles 20	0	21.211**	15.41		1
	1	1.796	3.76		-0.76**
Douala and Muyuka	0	29.830**	15.41		1
	1	2.672	3.76		-0.842**
Douala and Mpenda Mboko	0	25.840**	15.41		1
	1	2.268	3.76		-1.298*
Douala and Bafoussam	0	13.452	15.41		1
	1	1.752	3.76		-0.856
Douala and Yaoundé	0	12.875	15.41		1
	1	2.024	3.76		-1.024
Yaoundé and Obala	0	28.312**	15.41		1
	1	1.875	3.76		-0.978**
Yaoundé and Bafia	0	24.234**	15.41		1
	1	1.772	3.76		-1.143*
Yaoundé and Bafoussam	0	14.211	15.41		1
	1	3.045	3.76		-0.852

r = a number of vectors of co integration, which is maximum equal to 1 because one tests the couple of 2 markets.

If λtrace > critic value, one rejects H0.

P^{M20} = plantain price on Miles 20 market	P^B = plantain price on Bafoussam market
P^D = plantain price on Douala market	P^Y = plantain price on Yaoundé market
P^M = plantain price on Muyuka market	P^O = plantain price on Obala market
P^{PB} = plantain price on Penda Mboko market	P^{BF} = plantain price on Bafia market

Source: Calculations by the authors.

The estimated symmetrical error correction models (ECM) and asymmetrical (AECM) are presented in tables 4 and 5, respectively. For the markets that supply Douala, the ECM results suggest that the process of adjustment of prices to the long-run relation is relatively weak with approximately 27% and 25% of divergences from long-run equilibrium corrected each month for Penda Mboko and Muyuka, respectively. The Miles 20 market has a low coefficient of adjustment, 7%, representing a weak integration at the reference market. With regard to Obala and Bafia markets, which supply Yaoundé, their speeds of adjustment of 22% and 21%, respectively, are relatively weak compared with the threshold of the perfect adjustment of 100%. The short-run dynamics indicate that the price variations on the Douala and Yaoundé markets are transmitted partially to the peripheral markets. This indicates that the markets are weakly integrated in the short run, thus variations of the urban prices are partly transmitted to the domestic markets. Moreover, the estimated parameters of $\Delta P1t$ are, respectively, 0.47, 0.27 and 0.07 for Penda Mboko, Muyuka and Miles 20, and 0.47 and 0.36, respectively, for Bafia and Obala, also suggesting that the shocks of the Douala and Yaoundé markets instantaneously and partially affect the peripheral markets that supply them. The lagged difference terms are sometimes negative and sometimes positive, however, reflecting the complexities of the short-run dynamics.

TABLE 4: ESTIMATION OF ERROR CORRECTION MODEL (ECM)

Pair of markets	Constants	$\hat{u}_{t-1}$	ΔP_{1t}	ΔP_{2t-1}	ΔP_{1t-1}	ΔP_{2t-2}	ΔP_{1t-2}	ΔP_{2t-3}	ΔP_{1t-3}
Douala – Miles 20	0.17	-0.07**	0.07**	0.13	-0.01	0.19	-0.43**	-0.16	0.22
	(-0.28)	(-3.52)	(5.56)	(0.36)	(-0.04)	(1.14)	(-2.89)	(-1.75)	(1.46)
Douala – Muyuka	0.05	-0.25**	0.27**	0.03	-0.01	0.19**	-0.43**	-0.16	0.22
	(-0.19)	(-3.52)	(5.56)	(0.26)	(-0.04)	(2.14)	(-2.89)	(-1.75)	(1.46)
Douala – Penda Mboko	0.21	-0.27**	0.47**	0.03	-0.01	0.19**	-0.43**	-0.16	0.22
	(-0.29)	(-3.52)	(5.56)	(0.36)	(-0.04)	(2.14)	(-2.89)	(-1.75)	(1.46)
Yaoundé – Obala	1.13	-0.22**	0.36**	0.03	-0.01	0.19**	0.43	-0.16	0.24
	(-0.37)	(-3.32)	(3.46)	(0.36)	(-0.04)	(2.14)	(1.89)	(-1.75)	(1.46)
Yaoundé – Bafia	0.02	-0.21**	0.47**	0.03	-0.01	0.19**	-0.43*	-0.16	0.22
	(-0.21)	(-3.12)	(4.56)	(0.36)	(-0.04)	(2.14)	(-2.89)	(-1.75)	(1.46)

The numbers in parentheses are Student's statistics.

P_1 = reference price in Douala or Yaoundé and P_2 is the peripheral market price.

$(\hat{u}_{t-1})^+ = (P_{1t-1} - \beta P_{2t-1})^+$ et $(\hat{u}_{t-1})^- = (P_{1t-1} - \beta P_{2t-1})^-$ in accordance with equation (5).

Source: Calculations by the authors.

TABLE 5: ESTIMATION OF ASYMMETRICAL ERROR CORRECTION MODEL (AECM)

Pair of markets		Constants	$(\hat{u}_{t-1})^+$	$(\hat{u}_{t-1})^-$	ΔP_{1t}	ΔP_{2t-1}	ΔP_{1t-1}	ΔP_{2t-2}	ΔP_{1t-2}	ΔP_{2t-3}	ΔP_{1t-3}
Douala – Miles 20	Parameter (a⁺)	-0.01	-0.09**	-	- 0.08**	0.10	-0.21	0.24	-0.49**	-0.05	0.51**
		(-0.33)	(-2.11)	-	- (4.96)	(0.03)	(-1.00)	(1.02)	(-2.45)	(-0.40)	(2.57)
	Parameter (a⁻)	0.12	-	- 0.03	0.05**	0.04	0.10	0.15	-0.50**	-0.28**	-0.14
		(0.02)	-	(-1.90)	(3.17)	(0.22)	(0.35)	(1.02)	(-2.18)	(-2.22)	(-0.69)
Douala - Muyuka	Parameter (a⁺)	-0.11	-0.25**	-	0.38**	0.00	-0.21	0.24**	-0.49**	-0.05	0.51**
		(-0.35)	(-2.11)	-	(4.96)	(0.13)	(-1.00)	(2.02)	(-2.45)	(-0.40)	(2.47)
	Parameter (a⁻)	-0.09	-	-0.22	0.45**	0.04	0.10	0.15	-0.40**	-0.28**	-0.23
		(-0.25)	-	(-1.88)	(3.18)	(0.27)	(0.45)	(1.02)	(-2.15)	(-2.12)	(-0.59)
Douala – Penda Mboko	Parameter (a⁺)	-0.12	-0.29**	-	0.48**	0.20	-0.21	0.24**	-0.49**	-0.05	0.51**
		(-0.26)	(-2.11)	-	(4.96)	(0.13)	(-1.00)	(2.02)	(-2.45)	(-0.40)	(2.57)
	Parameter (a⁻)	-0.14	-	-0.23	0.45**	0.04	0.10	0.15	-0.50**	-0.28**	-0.13
		(-0.42)	-	(-1.90)	(3.18)	(0.29)	(0.45)	(1.02)	(-2.15)	(-2.12)	(-0.59)
Yaoundé - Obala	Parameter (a⁺)	-0.16	-0.23**	-	0.48**	0.00	-0.21	0.24**	-0.49*	-0.05	-0.51*
		(-0.44)	(-2.22)	-	(4.86)	(0.03)	(-1.00)	(2.02)	(-2.45)	(-0.40)	(-2.57)
	Parameter (a⁻)	-0.08	-	-0.20	0.35**	0.04	0.10	0.15	-0.51*	-0.28*	-0.13
		(-0.42)	-	(-1.81)	(3.20)	(0.29)	(0.45)	(1.02)	(-2.25)	(-2.02)	(-0.69)
Yaoundé - Bafia	Parameter (a⁺)	-0.61	-0.21**	-	0.48**	0.00	-0.21	0.24**	-0.49*	-0.05**	-0.51*
		(-0.47)	(-2.02)	-	(4.85)	(0.03)	(-1.00)	(2.02)	(-2.45)	(-2.40)	(-2.57)
	Parameter (a⁻)	-0.25	-	-0.24	0.45**	0.04	0.10	0.15	0.50*	-0.28**	-0.13
		(-0.54)	-	(-1.40)	(3.28)	(0.29)	(0.45)	(1.02)	(2.15)	(-2.12)	(-0.59)

The numbers in parentheses are Student's statistics. P_1 = reference price in Douala or Yaoundé and P_2 is the peripheral market price.

$(\hat{u}_{t-1})^+ = (P_{1t-1} - \beta P_{2t-1})^+$ et $(\hat{u}_{t-1})^- = (P_{1t-1} - \beta P_{2t-1})^-$ in accordance with equation (5).

(a⁺) = asymmetrical error correction model with positive residues of the long-run relation.

(a⁻) = asymmetrical error correction model with negative residues of the long-run relation.

Source: Calculations by the authors.

The AECM results correspond to some realities and the test (Table 6) shows that the transmission of the prices from the urban markets towards the peripheral markets is asymmetrical for the majority of the markets except those of Penda Mboko for Douala and Obala for Yaoundé, where transmission is symmetrical translating the fact that the price changes on the urban market are not transmitted in the same way towards the production markets. The proximity of Penda Mboko to Douala and Obala to Yaoundé could constitute an explanation for the fact that the transmission of the prices of the reference market towards each of them is rather symmetrical.

TABLE 6: SYMMETRICAL OR ASYMMETRICAL TEST OF PRICE TRANSMISSION

Pair of markets	Wald test	
	W-stat.	Probability
Douala – Miles 20	0.079**	0.042
Douala – Muyuka	0.182**	0.021
Douala – Penda Mboko	0.047	0.241
Douala – Bafoussam	0.172**	0.001
Douala – Yaoundé	0.162**	0.005
Yaoundé – Obala	0.172	0.131
Yaoundé – Bafia	0.152**	0.023
Yaoundé – Bafoussam	0.152**	0.041

After estimation of Equation 4, one makes the restriction test H0: $\propto_1^+ = \propto_{1+}$

Source: Calculations by the authors.

According to Rapsomanikis et al. (2003), an asymmetrical adjustment of prices can be due to a floor price policy that entails fixing a minimum price to the producers and consumers, a price that may smooth out the rise and fall variations of the reference price of urban market. In Cameroon, no policy of this kind is in force and the asymmetrical adjustment could be explained by other reasons like the market power exerted by certain traders at different levels of the marketing chain or high fixed costs in the distribution chain.

The long-run Granger causality tests (Table 7) indicate that the urban price of Douala or Yaoundé causes the price of the plantain on the peripheral markets, but not conversely.

TABLE 7: LONG-RUN GRANGER CAUSALITY TEST

Pair of markets	$\propto_1$	$\propto_2$	Result
Douala – Miles 20	-0.27**	0.043	Douala price causes Miles 20 market price.
	(-3.52)	(0.79)	
Douala – Muyuka	-0.22**	0.073	Douala price causes Muyuka market price.
	(-2.62)	(0.59)	
Douala – Penda Mboko	-0.15**	0.078	Douala price causes de Penda Mboko market price.
	(-2.22)	(0.99)	
Yaoundé – Obala	-0.35**	0.024	Yaoundé price causes Obala market price.
	(-3.40)	(0.69)	
Yaoundé – Bafia	-0.44**	0.038	Yaoundé causes Bafia market price.
	(-2.51)	(0.69)	

The figures in parentheses are Student's statistics.

After estimate of the equation (4), one tests: H0: $\propto_1 = 0$ and $\propto_2 = 0$ then p_2 causes p_1 H0: $\propto_1 \neq 0$ and $\propto_2 = 0$ then p_1 causes p_2 H0 : $\propto_1 \neq 0$ and $\propto_2 \neq 0$ then p_1 causes p_2 and p_2 causes p_1.

Source: Calculations by the authors.

In a general way, there are sufficient reasons to conclude that the urban market of Douala is slightly integrated with the markets of Penda Mboko and Muyuka. The markets of Douala and Miles 20 are less integrated than others; however, The Yaoundé market is also slightly integrated with those of Obala and Bafia. The price signals on the urban markets are transmitted to these markets in the short and the long run. The results show that in a general way, the marketing chain from the producer to the urban consumer functions at a weak degree. This result is moderate, however, because the markets that are close to Douala or Yaoundé – and connected there by the bituminized roads – have coefficients close to the average. The distance and the good transport infrastructure would be the determining factors of market integration and price transmission. It is noted, however, that the Bamenda, Bafoussam and Ebolowa markets, which are also connected

in Douala and Yaoundé by bituminized roads, are not cointegrated. This shows that variables other than the distance and the good infrastructures exist to explain spatial integration and price transmission on the plantain markets in Cameroon.

In addition, the Johansen test presented in Table 3 shows an absence of co integration of prices of the urban market and those of the peripheral markets (Bamenda, Bafoussam, Ebolowa), suggesting the non integration of the latter at the urban markets. Since the peripheral and urban prices are not co integrated, we carry out the estimate of an autoregressive distributed lag model (ADL) for each one of these markets. The estimated coefficients (Table 8) are significant and indicate that, in a general way, the price on each one of these markets can be modeled by an autoregressive model (ADL). The lagged terms of the urban price also seem to influence the variations of peripheral prices to a certain extent. However, it is difficult to evaluate the relationship to the lagged terms of the urban price because lagged one, this price positively explains the peripheral prices and lagged twice, it explains them negatively.

TABLE 8: ESTIMATION OF AUTOREGRESSIVE DISTRIBUTED LAG MODEL FOR THE LEVEL STATIONARY MARKETS AND FOR NON CO INTEGRATED MARKETS

Markets	Constants	P_{2t-1}	P_{2t-2}	P_{1t}	P_{1t-1}	P_{1t-2}
Bamenda	-0.156	0.750**	0.137**	0.055**	0.193	-0.104**
	(-0.152)	(9.849)	(1.663)	(0.692)	(1.536)	(-2.523)
Ebolowa	-0.132	0.815**	0.137*	0.055	-0.152	-0.228**
	(-0.149)	(9.849)	(1.663)	(0.692)	(-1.516)	(-2.563)
Bafoussam	0.115*	0.615*	-0.237*	0.055	0.262	-0.102*
	(0.218)	(8.849)	(-1.763)	(0.542)	(1.523)	(-2.423)
Douala	-0.130	0.815**	0.137*	0.155	0.191	-0.214**
	(-0.139)	(9.849)	(1.663)	(0.792)	(1.546)	(-2.513)
Yaoundé	0.126*	0.815*	-0.137*	0.155	0.162	-0.204*
	(0.239)	(9.849)	(-1.663)	(0.642)	(1.526)	(-2.533)

Numbers are estimated parameters of variables. Those in brackets are Student's statistics.

Source: Calculations by the authors.

The result proves that there is no transmission of price from the urban markets (Douala, Yaoundé) towards these markets (Bamenda, Bafoussam, Ebolowa). The prices on these markets are explained by their current prices and lagged ones.

5. CONCLUSION AND IMPLICATIONS FOR POLICY

The objective of this study was to understand why plantain prices continue to increase in the cities of Douala and Yaoundé, thus endangering the food security of the townspeople. The answer to this principal question required the application of econometric techniques of time series to the spatial integration tests of the markets. The methodological framework used was a co integration–error correction model on a sample of ten plantain markets in Cameroon whose Douala and Yaoundé constitute consumption or reference markets.

Globally, it transpires from the results that the transmission of Douala or Yaoundé prices towards the production markets (the peripheral markets) that supply them is not immediate and total. In other words, the price variations in Douala and Yaoundé are transmitted to the peripheral markets with a certain delay. However, the markets react to the changes of the urban prices in different degrees.

Although the short-run integration is weak, certain markets are more integrated than others. The speed of adjustment, which is defined as the number of days, weeks or months that the prices take to complete their adjustment, remains low in general, indicating insufficient arbitrage between reference and peripheral markets.

Is the insufficiency of the arbitrage process between the reference and peripheral markets explained mainly by the concentration of information in hands of certain traders? The availability and the accessibility of information for the whole range of actors of the food market are thus instrumental in stimulating the exchanges. It was to improve this availability and accessibility of information that the Cameroonian government in 1993 set up a food marketing information system (FMIS). The data used are mainly from this FMIS, indicating that the target aims are not yet achieved even though the results of our research do not enable us to say if the FMIS has improved the availability and accessibility of information on the food markets. We do think that the FMIS is to be encouraged because it makes it possible for the various actors of the distribution chain (producers, sellers and consumers) to rationalize their decisions of purchase and sale, which is a condition of food security of the urban populations.

In addition, there is an asymmetrical price transmission from the reference market towards the peripheral markets, indicating an asymmetry of information between traders and rural producers. One[20] of the lessons of the economy of information is that in an environment where information is incomplete and asymmetrical, the agents manage risky situations, which contributes to obstructing the operation of the markets. For food markets, the existence of asymmetrical information flows between traders and producers can involve problems of anti selection and modify the nature of their transactions and, more generally, the process of supplying cities. The asymmetrical information on the prices, which constitutes a risk for the producers, traders and consumers, is a barrier to the exchanges between production zones and consumption areas. To maintain urban food security in plantain, actions must be taken to remove the asymmetry of information on the prices between urban and production areas.

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POPULATION GROWTH, POVERTY AND ENVIRONMENTAL DEGRADATION IN INDIA

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ABSTRACT

India accounts 18 percent of the world population on 2.4 percent of its land area has great deal of pressure on its all natural resources. The pressure on land is increasing day-by-day while agricultural productivity is not keeping pace with the population growth. The poverty and rapid population growth are found to co-exist and seems to reinforce each other and also contributes to environmental degradation through over exploitation of natural resources. The increasing population pressure on land depleting natural resources and degrading the environment. The relationship between population growth, poverty and environmental degradation has been a matter of debate for decades. The objective of the study to examine the changes in trends of population growth from 1971-2011 and incidence of poverty from 1973-74 to 2009-10 in India. The study also examines the changes in land use pattern and environmental degradation in India and their relationship. The result of the study finds that magnitude of environmental degradation is not uniform in India. For example, poverty has been the major cause of depletion of natural resources and environmental degradation in India, and both rapid population growth and continued economic development are found to be the major causes of environmental pollution. Thus the forgoing analyses represent the relationship between population growth, poverty land use pattern and environmental degradation in India and analyze the challenges of sustained development without harming the environment.

KEYWORDS
population growth, poverty, environmental degradation.

INTRODUCTION

The world population is nearly one billion and population projection suggest that world population will fall somewhere between 7.5 and 10.5 billion by 2050. India accounts 18 percent of the world population on 2.4 percent of its land area has great deal of pressure on its all natural resources (Bremner, J.,López-Carr, D., Suter, L. and Davi s, J, 2010). The pressure on land is increasing day-by-day while agricultural productivity is not keeping pace with the population growth. The poverty and rapid population growth are found to co-exist and seems to reinforce each other and also contributes to environmental degradation through over exploitation of natural resources. According to Asian Development Bank (1993) "it is generally accepted that environment degradation, rapid population growth and stagnant production of agriculture are closely inter linked with fast spread of acute poverty in many Asian countries". The increasing population pressure on land depleting natural resources and degrading the environment. The relationship between population growth, poverty and environmental degradation has been a matter of debate for decades. The relationship is complex, population size and growth tend to expand and accelerate these human impacts on the environment. The number of population and number of poor rise will increase to such an extent in future that it will cause overall scarcity for resources. The effects of environmental degradation on human beings, it appears that if we want to exist on earth, it is high time to give top priority to control population growth, reduce poverty and minimize environmental degradation. Thus the forgoing analyses represent the relationship between population growth, poverty land use pattern and environmental degradation in India and analyze the challenges of sustained development without harming the environment.

OBJECTIVES OF THE STUDY
The specific objectives of the present study are following:
1.   To examine the changes in trends of population growth from 1971-2011 in India.
2.   To examine the incidence of poverty from 1973-74 to 2009-10 in India.
3.   To examine the changes in land use pattern and environmental degradation in India and their relationship.

DATA AND METHODOLOGY
The present study was based on secondary sources of data. The data related to demographic of India is taken from Census publications (Registrar General of India) form 1971-2011. The data on poverty is taken from the planning commission estimates during the 1974 to 2009-10. The land use classification data is compiled from various issues of statistical abstract of India from 1971-2011. Simple percentage method was used to draw the results.

REVIEW OF LITERATURE
Various studies have been done to assess the link between population growth, poverty and environment degradation. It has often been a wide literature on local and global level. These studies aimed to find out the objective related to the present work and analyze the interrelationship between the three aspects. The main objective of the study is to find out the relationship between population growth, poverty and environmental degradation. The new dimension to link between poverty and environmental degradation was brought out in 1995 when (Reardon and Vosti) introduced the concept of 'investment poverty' and related the same to other measures of poverty and categories of environment change with particular focus on farm household income generation and investment strategies as determinants of the links. Finally, they opined that the links between poverty and environment in a given setting depend on the level, distribution and type of poverty and environmental problems (Reardon and Vosti 1995).
Ahluwalia in his study examined the trends in the incidence of poverty in rural areas for 14 years covering the period 1956-57 to 1973-74 for India as a whole as well as for the individual states and find the relationship between poverty and agricultural growth (Ahluwalia,1977). Rao in his paper analyzed the trends of

agricultural growth, sustainability and poverty alleviation during reform period (Rao.H, 1998). Kumar 2001, Nayak 2004 and Ray and Ray 2011 authors examine the problems and suggestions of environmental degradation in rural areas and population change and its impacts on land, forest and water and energy resources. Population growth plays an important role in declining per capita agricultural land, forest and water resources. These analyses revealed that outcomes of high population growth rates are increasing population density and number of people below poverty line. Poverty still remains a problem at the root of several environmental problems and said to be both cause and effect of environmental degradation. These studies evaluated the relationship between population growth, poverty and environmental degradation and revealed that there is strong and positive relationship between theses three concepts (Kumar 2001, Nayak, 2004, Ray and Ray,2011, Saravanan et al.,2011)

ANALYSIS
TRENDS OF POPULATION GROWTH IN INDIA 1971-2011
India is the second largest populated country in the world. At the time of Independence India population was about 36.1% during 1951 but now the population of India is 121 million during 2011. The population increases after independence due to increase in health facilities and control on certain communicable disease. The reduction in death rate resulted in a significant raise in population growth. In this context, India's population from 1971 to 2011 can be classified below table-1.

TABLE 1: TRENDS OF POPULATION GROWTH IN INDIA 1971-2011

Year	Population in Million			Decadal Growth Rate of Population in percent			Density of Population
	Total	Rural	Urban	Total	Rural	Urban	
1971	548.2	439.1	109.1	24.8	21.86	38.23	173
1981	683.3	523.9	159.4	24.66	19.32	46.14	216
1991	846.3	628.7	217.6	23.85	20.01	36.47	267
2001	1028.7	741.7	285.3	21.35	17.97	31.11	312
2011	121.05	833.1	377.1	17.64	12.18	31.80	328

Source: Census of India, Various issues.

In the table-1 figures represent that during 1971 the total population of India was 548.2 million increased by 24.8 percent decadal growth rate and rural population (21.86) percent increase less then urban population (38.23) percent. During 1971 the density of population was 173 but in 1981 the density of population increased to 216 and growth rate of population was 24.66 percent. It is further noted that population has increased in 1991, with 846.3 million and 267 density of population. The population of rural India increased around one and half time from 439.1 in 1971 to 741.7 million in 2001, whereas urban population has grown up more than two and half fold during the same period, which is from 109.1 million in 1971 to 377.1 million in 2011. The density of population has increased from 173 in 1971 to 328 persons in 2011. Despites the fall in growth rate, the population is still high over the decades. According to the standard projection, India's population will increase from 1027 million to 1419 million during 2001-26, a total rise of 38 percent or 1.3 percent per year (Dyson, 2004). Thus, for India's population growth these projection figures clearly give an idea regarding future demand for various resources, population pressure on land and the consequences of current demographic trends in terms of environmental degradation.

TREND OF POVERTY IN INDIA 1974 TO 2010
Most of India's poor live in rural areas and are engaged in agriculture. India, with a high density of population relative to resources, faces developmental challenges in alleviating massive poverty and deprivation, and in raising the quality of life of poor people. The growth performance of states has crucial implications in poverty reduction, which is an important objective of the economic policy. India's poverty reductions through the anti-poverty and employment generation programmes along with overall economic growth-planning efforts have helped to reduce the poverty ratio in the country (Population and Environment in India). In this context, India's poverty from 1973 to 2010 can be classified below table-2.

TABLE 2: PERCENTAGE OF BELOW POVERTY LINE PERSONS IN INDIA DURING 1973-74 TO 2009-10

STATE/UTs	1973-74	1977-78	1983-84	1987-88	1993-94	1999-2000	2004-05	2009-10
Andhra Pradesh	48.86	39.31	28.91	25.86	22.19	15.77	29.6	21.1
Arunachal Pradesh	51.93	58.32	40.68	36.22	39.35	33.47	31.4	25.9
Assam	51.21	57.15	40.47	36.21	40.86	36.09	34.4	37.9
Bihar	61.91	61.55	62.22	52.13	54.96	42.6	54.4	53.5
Goa	44.26	37.23	18.9	24.52	14.92	4.4	24.9	8.7
Gujarat	48.15	41.23	32.79	31.54	24.21	14.07	31.6	23
Haryana	35.36	29.55	21.37	6.54	25.05	8.74	24.1	20.1
Himachal Pradesh	26.39	32.45	16.4	15.45	28.44	7.63	22.9	9.5
Jammu & Kashmir	40.83	38.97	24.24	23.82	25.17	3.48	13.1	9.4
Karnataka	54.47	48.78	38.24	37.53	33.16	20.04	33.3	23.6
Kerala	59.79	52.22	40.42	31.79	25.43	12.72	19.6	12
Madhya Pradesh	61.78	61.78	49.78	43.07	42.52	37.43	48.6	36.7
Maharashtra	53.24	55.88	43.44	40.41	36.86	25.02	38.2	24.5
Manipur	49.96	53.72	37.02	31.35	33.78	28.54	37.9	47.1
Meghalaya	50.2	55.19	38.81	33.92	37.92	33.87	16.1	17.1
Mizoram	50.32	54.38	36	27.52	25.66	19.47	15.4	21.1
Nagaland	50.81	56.04	39.25	34.43	37.92	32.67	8.8	20.9
Orissa	66.18	70.07	65.29	55.58	48.56	47.15	57.2	37
Punjab	28.15	19.27	16.18	13.2	11.77	6.16	20.9	15.9
Rajasthan	46.14	37.42	34.46	35.15	27.41	15.28	34.4	24.8
Sikkim	50.86	55.89	39.71	36.06	41.43	36.55	30.9	13.1
Tamil Nadu	54.94	54.79	51.66	43.39	35.03	21.12	29.4	17.1
Tripura	51	56.88	40.03	35.23	39.01	34.44	40	17.4
Uttar Pradesh	57.07	49.05	47.07	41.46	40.85	31.15	40.9	37.7
West Bangal	63.43	60.52	54.85	44.72	35.66	27.02	34.2	26.7
Andman & Nekobar	55.56	55.42	52.13	43.89	34.47	20.99	3	0.4
Chandigarh	27.96	27.32	23.79	14.67	11.35	5.75	11.6	9.2
Dadra & Nagar Haveli	46.55	37.2	15.67	67.11	50.84	17.14	49.3	39.1
Daman & Diu	NA	NA	NA	NA	15.8	4.44	8.8	33.3
Delhi	49.61	33.23	26.22	12.41	14.69	8.23	13	14.2
Lakshadweep	59.68	52.79	42.36	34.95	25.04	15.6	6.4	6.8
Pondicherry	53.82	53.25	50.06	41.46	37.4	21.67	14.2	1.2
INDIA	54.88	51.32	44.48	38.86	35.97	26.1	27.2	29.8

Source: Planning Commission of India, 2011

The table-2 indicated the percentage of below poverty line persons in India from 1973-74 to 2009-10. The official estimates of percentage of BPL released by Planning Commission showed a marked decline in poverty level over the years 1973-74 to 2009-10. The poverty estimates during the time indicated that 55 percent more than the half of total population in the country was living in below poverty line. This percentage almost halved to 27.2 percent in 2004-05 and 29.8 percent observed in 2009-10. The percentage of poverty has decline in rural and urban areas. There has been doubt about the poverty measures for 1999-2000, the estimates for the periods are considered to be fairly robust. For instance, existing analysis has shown that there was no improvement in 1993-94 over that in 1987-88 all the India level irrespective of the poverty line used. The comparative analysis of poverty at state level indicated that Bihar (61.91), Madhya Pradhesh (61.78), Orrisa (66.18), West Bangal (63.43) and in Uttar Pradesh (57.07) have highest percentage of poverty ratio in India where the lowest poverty was observed in Punjab (28.15) and in Haryana (35.36) during 1973-74. There could be more than one factor which turns the measures of poverty. We find that there has been a consistently declining in trend of poverty during 2004-05 and 2009-10. The state Bihar has the highest percent of poverty (53.5) following Madhya Pradesh (36.7), Orissa (20.9) and West Bengal (37.7) where the state with lowest percentage states of poverty are Kerala (12), Punjab (15.9) and Haryana (20.1). The percentage of poverty in trends of below poverty line indicated that major states show the significant reduction in poverty. But the states Orrisa, Bhiar, U.P and Madhya Pradesh have consistently high percentage of below poverty line. The higher poverty in these areas seems a lack of access resources like agricultural land, farm inputs and environmental degradation in terms of reduction in forest cover.

LAND USE PATTERN AND ENVIRONMENT DEGRADATION IN INDIA

Land use is a kind of permanent or cyclic human intervention on the environment to satisfy human needs to support different types of land utilization under given cultural and socioeconomic conditions. The land use is important not only in agriculturally dominated, over populated developing regions but throughout the world because of its relationship was different with human. Increasing population growth adversely affects the environment and polluted with their day to day activities which causes environmental degradation. Environment degradation is a complex problem which is being increasingly faced with the passage of time. It has, in fact reached at an alarming stage at the turn of this century when ecological imbalances in agricultural practices have been adopted across the country, of course, at a differential level. The degradation of rural environment arises from two major sources from: deforestation and degradation of land on account of the loss of vegetative cover, resulting in low water table and loss of top soil. These have a direct bearing on the productivity of soil, its vulnerability to rainfall variations, scarcities of drinking water, fodder and fuel wood causing hardships to the rural poor. The second major source of environmental degradation in rural areas is the misapplication of yield increasing inputs like water, chemical fertilizers and pesticides, causing water logging, salinity and pollution of drinking water etc. On these two major sources, via; Deforestation and chemicalisation of agriculture, may raised a greater threat to rural ecology at present stage of agricultural development in India. This is because Indian agriculture has been operating at the extensive margin in large parts of the country even under the existing technology and over cultivation of resources without proper rotation of crops has resulted into severe environmental degradation (Nayak, 2004).

TABLE 3: LAND USE PATTERN IN INDIA 1971-2011 (IN MILLION HECTARES)

CLASSIFICATION	1970-71	1980-81	1990-91	2000-1
Geographical area	328.7	328.7	328.73	328.72
Reporting area for land utilization statistics	303.76	304.15	304.86	306.66
1.Forests	63.91	67.47	67.8	70
2.Not available for cultivation	44.64	39.62	40.48	43.56
(b). Non- agricultural uses	16.48	19.66	21.09	26.51
(b). Barren and unculturable Land	28.16	19.96	19.39	17.05
3.Other uncultivated land including fallow land	35.06	32.31	30.22	29.03
(a).Permanent pasture and other grazing land	13.26	11.97	11.4	10.31
(b).Land under miscellaneous tree crops and grooves not included in net area sown	4.3	3.6	3.82	3.20
(c). Culturable wasteland	17.5	16.74	15	12.65
4.Fallow land	19.88	24.75	23.36	24.58
(a).Fallow land other than current fallow	8.76	9.92	9.66	10.32
(b).Current fallows	11.12	14.83	13.7	14.2
(5).Net area sown	140.27	140	143	141.5
(6).Gross cropped area	165.79	172.63	185.74	198.9
(7).Area sown more than once	25.52	32.63	42.74	57.3
(8).Cropping intensity*	118.2	123.3	129.9	137.3
(1).Net irrigated area	31.1	38.72	47.78	23.59
(2).Gross irrigated area	38.19	49.78	62.47	86.30

Source: Statistical Abstract of Haryana, Various issues.

Table 3 shows the classification of land use pattern during 1970-71 to 2000-1. The total area of land under cultivation increased but land was not available for productive purpose and expansion of area under cultivation, less agricultural land is available to feed each person in India. A change in land utilization pattern implies shows the increase and decrease in proportion of area under different land uses at a point of time. Table describe the land utilization pattern in India from 1970-71 to 2000-01. Out of total geographical area of 328.7 Million Hectares only 306.6 million Hectares is reporting area. The land for non agricultural use was 16.48 during 1970-71 but it increased to 26.51 in 2000-1. The barren and unculturable land was 28.16 during 1970-71 but it was declined to 17.05 in 2000-1. The net sown area increases 140.27 to 141.5 during 2000-1. Mostly through reclamation of old fallow and Culturable wasteland diversion of groves, gross cropped area increases 165.79 to 198.9 during 2000-1. The land use pattern also affected by the cropping intensity of net irrigated area and gross cropped area, cropping intensity was 188.2 during 1970-71 and 137.3 during 2000-1. The classification of land use pattern directly affected by the agricultural intensification and extensification. But this leads to land degradation because of rapidly increasing population. The outcomes of high growth rate are increasing the density of population and poverty also. The poor person increases the pressure on natural resources. The poverty and rapid population growth contributes environmental degradation through over exploitation of resources.

POVERTY, POPULATION GROWTH AND ENVIRONMENTAL DEGRADATION

Poverty is amongst the consequences of population growth and its life style play major role in depleting the environment either its fuel demands for cooking or for earning livelihood for their survival. The unequal distribution of resources and limited opportunities cause push and pull factor for people living below poverty line that in turn overburdened the population density and environment get manipulated by manifolds. Most of India's poor live in rural areas and are engaged in agriculture. Rural poverty is inverse related with growth of agriculture. (Ahluwalia) India, with a high density of population relative to resources, faces developmental challenges in alleviating massive poverty and deprivation, and in raising the quality of life of poor people. On the other hand, poverty is said to be cause and effect of environment degradation.

It is in this context that the first report on Human Development mentions, "Poverty is one of the greatest threats to the environment" (UNDP 1990). Moreover, degraded environment can accelerate the process of impoverishment, again because the poor depend directly on natural assets. It also contributes to environmental degradation through over exploitation of natural resources like land and water. The poor are the victims of environmental degradation and too are the agents, the perpetrators of the degradation. They are basically short-run maximizes; they try to meet the needs of the present at the cost of the future. Poor and hungry often destroy their immediate environment for their survival. They cut down forests; their livestock overgraze grasslands; they overuse marginal lands; and they crowd into congested cities in growing numbers. The cumulative effect of these changes is so far-reaching as to make poverty itself a major global scourge.

Environmental degradation is a result of the dynamic inter-play of socio-economic, institutional and technological activities. Environmental changes may be driven by many factors including economic growth, population growth, urbanization, intensification of agriculture, rising energy use and transportation. Poverty still remains a problem at the root of several environmental problems. Thus growth performance of states has crucial implications in poverty reduction, which is an important objective of the economic policy. India's poverty reductions through the anti-poverty and employment generation programmes along with overall economic growth-planning, efforts have helped to reduce the poverty ratio in the country (Nayak, P,2004).

CONCLUSION

The relationship between population growth, poverty and the environment has become part of global concerns. In fact, sustainable development is impossible without efficient environmental management. In the same vein, poverty alleviation is also impossible without tackling the problem of environmental degradation. Poverty reduction is the goal of economic development and thus the environment and the resources there in are important for the attainment of this objective. Rapid population growth, poverty and developmental efforts are the major factors contributing to natural resources depletion and environmental pollution. However, the magnitude of environmental degradation is not uniform in India. For example, poverty has been the major cause of depletion of natural resources and environmental degradation in India, and both rapid population growth and continued economic development are found to be the major causes of environmental pollution.

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IMPACT OF KUDUMBASHREE ON WOMEN EMPOWERMENT: A CASE STUDY IN KANNUR, KERALA

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ABSTRACT
It is quite unfortunate, but when facts reveal themselves as clear as day light, one cannot shy away from accepting the reality that India, like many other countries, is a heteronormative and patriarchal society. It is a fact that a large section of women in India are denied social participation, political participation, economic participation, access to education and also reproductive healthcare. Hence, they are economically dependent on the men of the family, which in turn sustains patriarchal dominance. In such a scenario, the concept of women empowerment assumes greater significance. The idea of women empowerment is rooted in the fundamental belief that men and women are equal and they deserve equal opportunities, which, unfortunately, has been denied to women all this while. It aims at providing women the courage to take their own decisions regarding their lives both in family and society. Empowering women is to make them independent and not just in terms of finance, but in all aspects of social existence. Kudumbashree (Prosperity for Women) is one such successful women-empowering project in Kerala and the largest in India. The main objective of the proposed study is to understand to what extent this program has influenced the women and led to their empowerment.

KEYWORDS
kudumbashree, neighborhood groups, decision making, self-independent.

INTRODUCTION
It is a matter beyond doubt that women have an important role to play in the development of any country, and real development is possible only when the women and men work on equal terms. Kudumbashree is the flagship program of Kerala State Govt. to achieve this goal.

The Kerala State Poverty Eradication Mission implemented the Kudumbashree program by creating community-based structure of women below poverty line with focus on self-help demands led over by available resources under the supervision of local government. The core idea of this scheme is to enhance the standard of living of poor women in rural areas by setting up micro-credit units and also productive enterprises.

ORIGIN OF THE RESEARCH PROBLEM
Women need empowerment to become independent and to take firm decisions in their lives. Most of the women in rural areas don't have educational qualifications that would not fetch them good jobs, as a result they become more dependent on others. So, any poverty eradication program must aim to improve the standard of living environment, providing opportunities coupled with empowerment of women. In other words, it envisions a holistic empowerment through collective action, by giving education to girls and also by improving the health of girl children. This research is being done in order to know to what extend this program has empowered women of Kannur district in Kerala.

STATEMENT OF THE PROBLEM
Most of the women in rural areas do not have the needed skills so as to compete with others, especially women and men in urban areas. Thus, they face more difficulties, especially with regard to employment opportunities. The problem of poverty gets accentuated in rural areas due to the non-employment of women in wage earning vocations. In order to overcome this limitation, a novel programme in the form of Kudumbashree has been launched with the aim of eradication of poverty and empowerment of women. It makes women self-employed by setting up micro-credit and productive enterprises that would ultimately result in poverty eradication. The proposed research is an attempt to conceptualize the extent of impact *Kudumbashree* has on women empowerment.

OBJECTIVE OF THE STUDY
The main objective of the study is to assess whether Kudumbashree programs have promoted any significant empowerment in the lives of women with special reference to Kannur District (Kerala State).

HYPOTHESES FOR THE STUDY
1. Kudumbashree makes no significant change in women empowerment.
2. There is no significant relationship between confidence and women empowerment.
3. There is no significant relationship between stability of income and women empowerment
4. There is no significant relationship between knowledge, awareness and women empowerment
5. There is no significant relationship between participation in public life and women empowerment

ORGANIZATIONAL STRUCTURE
Kudumbashree was started as a program of the Kerala government and NABARD and it is introduced through Community Development Societies, which act as the community wing for Local Governments. Kudumbashree is registered as the "State Poverty Eradication Mission" (SPEM), a society registered under the Travancore Kochi Literary, Scientific and Charitable Societies Act 1955.

KUDUMBASHREE MODE OF OPERATION

Under Kudumbashree, (referred as KDMS) women have organized themselves as three level structured community based organization. The bottom level of the KDMS program is Neighborhood Groups (NHGs) and it consist of 20-40 women who are the members of Kudumbashree. The Neighborhood Groups (NHGs) are formed with help of Area Development Society (ADS) by considering 8 to 10 NHGs. Community Development Society (CDS) is heading the Area Development Societies (ADSs) which are mainly dealing in coordinating actives up to level of panchayath. The members in NHG have to meet once in a week in any of the members' home. The members meet and discuss about the entire problem and they will jointly take decisions in order to solve it. This will help them to increase the confidence level and also help to build team work. They also practice small savings which is known as which can be used for productive asset.Mini plans are formulated with the help of micro plans which are prepared by NHG meetings conducted by members.Mini plans will be consolidated by taking priority at CDs meeting and a Sub plan will be formed which will become the anti poverty program for the local self government. Forming the mini and micro plans will help strengthen the women in stake holding capacity.

LOCAL ECONOMIC DEVELOPMENT

The main aim of Kudumbashree is to make strong community of women and local government. Employment opportunities was generated with the help of local community, it also helps to increase the production and also checks the well being of members of Kudumbashree and became the model for the growth.

COLLECTIVE FARMING

It is a program introduced by Kudumbashree to motivate for cultivation by the members in neighborhood groups. It also helps to make changes in people below poverty line. And also helps to utilize wasteland by increasing agriculture production. Collecting farming helps to increase agricultural products also.

MAHILA KISAN SASHAKTHIKARAN PARIYOJANA (MKSP)

MKSP is a part of National Rural Livelihood Mission which intents to increase the level of participation of women in agriculture it also helps to strengthen the livelihood of women and also motivates for eco friendly agriculture.

SANTHWANAM

It is started as an enterprise which mainly aims to provide medical facility at door step of people. It will help the people to get checkups and testing facility at minimum cost.

THELIMA-SOLID WASTE MANAGEMENT

This program mainly focuses on clearance of waste. The program intents in waste management by outsourcing it to women entrepreneurs.

AMRUTHAM FOOD SUPPLEMENT

Amrutham food supplement mainly aims to provide nutrional supplement to children in the state. It is mainly given to the children between the ages of 6 months to 3 years. They will provide the nutritional supplement through aganwadi which is run by the government.

EKSAT

It is a program put forward by Kudumbashree which consist of specialist who are ready to give training to the members in Kudumbashree.

KAASS

KASS means *Kudumbashree* Accounts & Audit Service Society. It is an enterprise which is home grown. The main intention of the enterprise is to make proper keeping of accounts in the network of community.

TRISAT

TRISAT mainly intents in the development of community which consist of tribals. They will provide training and workshops which motivates them to develop they will also provide information which helps to create awareness of various schemes and programs which are put forward by government.

CAFE KUDUMBASHREE

It was started in Started in 2009 which was mainly developed to improve the environment and condition prevailing in canteen. It also prepares homely food which is available for people at lesser

NATURE FRESH

It mainly aims to provide milk at premium cost. It also ensures milk which is providing milk at premium cost to consumer and it also intends to provide milk which is not adultered in nature.

SKILL TRAINING

The skill development programme of Kudumbashree seeks to provide the entrepreneur the requisite skills, managerial, financial, and technical to run an enterprise. These are trainings imparted before setting up enterprises, and there are trainings provided later.

SOCIAL DEVELOPMENT

Kudumbashree plays major role in social development. It helps the women to become more independent, it reaches even the poor people located in rural areas and also it provides help for disabled people. It empowers the women in such a way that it helps to raise the voice and it also helps them to become aware about what is happening in the community. Kudumbashree helps women to gain confidence with the help of various programs.

ASRAYA

When the programs are being implemented for poverty eradication by the government it is observed that it never reaches to the poorest people in the society. There are people who are living in extreme poverty. They are living a miserable situation in the society. The Kudumbashree had introduced the program ASRAYA in order identify the people who are very needy and rehabilitate them with care.

BUDS – SPECIAL SCHOOL FOR MENTALLY & PHYSICALLY CHALLENGED CHILDREN

It is a special school for the children who are mentally challenged. BUDS mainly focuses on thee well being of mentally challenged children and it also focus on the improvement on the health of those children

WOMEN EMPOWERMENT

Women empowerment can be gained only when they are bothered about their rights and they have courage to claim them. Kudumbashree makes aware about the rights of women with the help of discussions which will help them in the phase of development. Organisation structure of Kudumbashree also make them to develop the leadership skills and also increase capacity building of women. With the help of Kudumbashree it makes them to become self independent. It also encourages for the formulation of new programs by members.

MICRO FINANCE

Micro Finance is the most common activity introduced by Kudumbashree, it also strengthens the NHG.NHG will be having flexibility in mode of operation.
These are the various activities introduced by Kudumbashree
1. Thrift and credit operations.
2. Linkage Banking.
3. Matching Grant.
4. Interest Subsidy for Linkage Loans
5. KAASS.
6. Digitization of MIS and repayment Info System

REVIEW OF LITERATURE

Kudumbashree is a poverty eradication program which is introduced in state of Kerala. A brief view of the studies which are conducted is far is given below.

A report on self help groups of women in Kerala State, India: A public health perspective by Mohindra (2003) tells about the linkages between micro-credit through SHGs and health. The report identifies providing various opportunities to women to for participating in financial activities and in expanding their social network, SHGs also helps in generating autonomy of female which in turn will lead to awareness of their health and also increase their capacity of decision making on family's health

Ganeshmurthy VS (2007), in his edited volume book India: Economic Empowerment of Women, had made clear that in India the participation of women rate is very less than the half of total women. Despite efforts which are made towards the women empowerment, most of the active female continues to be remaining to micro, small-scale enterprises in rural areas and also informal sector.

Jaya S. Anand (2002), in discussion paper which is titled "Self-Help Groups in Empowering Women: Case Study of Selected SHGs and NHGs", gives a review of improvement of Self Help Groups. She also has attempted to analyze the level of performance of SHGs and NHGs which are selected and to analyze its impact, especially on micro credit program which are initiated for empowering women.

Sri. V. P. Ragavan (2009), in his article had stated that the women who are below poverty line of the State have become more active member in planning and implementation process of various programs initiated for anti poverty. When women started to participate in various program which are incomes generating and which are developmental in nature, the level of confidence and decision making started to increase.

Kenneth Kalyani, Seena P.C (2012) tells that economic development is one of the bases for other development. The empowerment of women leads to social development. The development of women leads in terms of economic condition for better living status in the family, educational, nutritional, and the health needs of the children were well satisfied.

Puhazhendhi and Satyasai (2001) in the study had attempted to evaluate the performance of SHGs with reference to empowerment in social and economic life. Primary data are collected with the help of questionnaire from 560 samples in 223 SHGs which functions in 11 states. The findings of the study reveal that the SHGs, which act as arrangement, could contribute in a positive manner for the economic and social empowerment. The effect of this is more pronounced on the latter than on the former. Though there is no specific pattern in the performance of SGGs among different regions in the state, the south regional area could edge out other regions. The SHGs program had become more popular in the southern region. Older groups were able to perform better than younger.

Sakuntala Narasimhan (2001) focuses specially on rural Scheduled Caste and Scheduled Tribe women, who are being disadvantaged as women, as people of the rural section of the populace and also due to their low caste status. The book evaluates the effectiveness of State initiatives with the motivation.

METHODOLOGY AND SOURCES OF DATA

COLLECTION OF DATA: The influence of Kudumbashree on women is assessed by the field surveys and personal interviews. Statistical evidences are also drawn from the sources available with the Micro-units, under the scheme are surveyed and examined for arriving at conclusions. The study is mainly based on primary data, and the secondary data is used to supplement and support the primary data.

RESEARCH POPULATION AND SAMPLE: Micro units of Kudumbashree are selected as research population.

SAMPLING DESIGN: Ten micro units of Kudumbashree of Kannur district are selected by random sampling method and members of the selected units are the respondents. There are Eleven block Panchayaths in Kannur district namely Payyanur, Kalliasseri, Thaliparamba, Irikkur, Kannur, Edakkad, Thalassery block Panchayaths. Each unit consists of 20 members. So a total of 200 members of 10 units are taken as sample respondents for the purpose of study.

METHOD OF DATA COLLECTION: All the items shown in the questionnaire were asked to members of the units. They were asked to fill the questionnaire on January 2016. Personal interviews were also conducted with office bearers and vice chairperson of Kudumbashree units in the same period

DATA ANALYSIS AND TECHNIQUE: The general information has been analyzed with the help of primary data collected from among the respondents through structured questionnaires

SCALING TECHNIQUES: Scaling technique is used to measure variables related with level of improvement on a three-point scale with a weight age of three, two and one for Greatly Improved, fairly improved and not improved.

TOOLS OF ANALYSIS: Statistical techniques like percentage, correlation and regression are used. Correlation and regression was done with the help of SPSS software package.

DATA ANALYIS AND INTERPRETATION

AGE GROUP

TABLE 1

Age(years)	Frequency of respondents	Percentage (%)
18-28	60	30
29-39	80	40
40-50	40	20
More than 50	20	10
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart depict that 30% of respondents are between ages of 18-28, majority of 40% respondents are between ages of 29-39, 20% of respondents are between age of 40-50 and others more than 50 are of 10%. Hence it can be concluded that majority of people in Kudumbashree are age of 29-39.

MARITAL STATUS

TABLE 2

Marital status	Frequency of respondents	Percentage (%)
unmarried	70	35
married	90	45
Divorced	30	15
widow	10	5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart depict that 35% of respondent are unmarried, 45% of respondent are married, 15% of respondent are divorced, 5% of respondent are widowed. Hence it can be concluded that majority of women in Kudumbashree are married.

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EDUCATION QUALIFICATION

TABLE 3

Education qualification	Frequency of respondents	Percentage (%)
Below SSLC	30	15
SSLC	50	25
Plus two	70	35
Graduation	30	15
Post Graduation	20	10
Above post graduation	-	0
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart depict 30% of respondents are below SSLC, 25% of respondents are SSLC, 35% of respondent are plus two, 15% of respondent are graduates, 10% of respondent are post graduates. Hence it can be concluded that most of women in Kudumbashree had studied plus two

PARTICIPATION IN MEETING

TABLE 4

Participation in meeting	Frequency of respondents	Percentage (%)
Always	120	60
Sometimes	60	30
Rarely	10	5
Never	10	5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart shows that 60% of respondent used to participate in meeting, 30% of respondent sometimes used to attend meeting, 5% of respondent rarely used to attend meeting and remaining 5% of respondent never used to attend meeting. Hence it can be concluded that most of the women used to attend the meetings.

INTEREST IN COORDINATING PROGRAM

TABLE 5

Showing interest in coordinating program	Frequency of respondent	Percentage (%)
Greatly interested	90	45
Moderate	60	30
Occasionally interested	40	20
No interest	10	5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart depict that 45% of respondents greatly interested in coordinating program, 30% of respondent moderately interested in coordinating program, 20% of respondent occasionally get interested in coordinating program, while 5% of respondent have no interest in coordinating program. Hence it can be concluded that most of the women in Kudumbashree used to show interest in coordinating program.

ADDITIONAL ATTRIBUTE GOT

TABLE 6

Additional attribute got	Frequency of respondent	Percentage (%)
Financial strong	120	60
Self decision	60	30
Help others also	15	7.5
Depend on other	5	2.5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The table and chart depict that 60% of respondent are financially strong, 30% of respondent are able to take self decision, 7.5 % of respondent are able to help others also, 2.5% of respondent are depend on others. Hence it can be concluded majority of women became financially strong after joining in Kudumbashree

INCREASE IN LEVEL OF PARTICIPATION IN PUBLIC LIFE

TABLE 7

Increase level of participation in public life	Frequency of respondent	Percentage (%)
Yes	180	90
No	20	10
Total	200	100

Source: compiled from questionnaire

INFERENCE

The table and chart show 90% of respondent were able to increase level of participation in public life, 10% of respondent were not able to increase level of participation. Hence it can be concluded that most of the women were able to increase level of participation in public life

IMPROVEMENT IN LIFE

TABLE 8

Improvement in life after joining Kudumbashree	Frequency of respondent	Percentage (%)
Yes	183	91.5
No	17	8.5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The table and chart show 91.5% of respondent have improvement in life after joining Kudumbashree, while 8.5% of respondent are not having any improvement in life after joining Kudumbashree. Hence it can be concluded that most of the women have improved their life after joining Kudumbashree

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TYPE OF CHANGES CREATED

TABLE 9

Type of changes created by Kudumbashree	Frequency of respondent	Percentage (%)
Own saving	90	45
Financial empowerment	40	20
More courage	50	25
Deal with multiple people	10	5
Any other	10	5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart depict that 45% of the respondents have own saving, 20% of respondent have financial empowerment, 25% of respondent have more courage after joining Kudumbashree, 5% of respondent are able to deal with more people, and 5% of respondents have other types of changes after joining Kudumbashree. Hence most of the respondents have own saving after joining Kudumbashree.

AWARENESS ABOUT VARIOUS SCHEMES OFFERED

TABLE 10

Awareness about various schemes offered by govt	Frequency of respondent	Percentage (%)
Yes	150	75
No	50	25
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart depict that 75% of respondent are aware about various schemes offered by government, while 25% of respondent are not aware. Hence it can be concluded that majority of respondent are aware of various schemes offered by the government.

SKILLS DEVELOPED

TABLE 11

Skills developed	Frequency of respondent	Percentage (%)
Leadership skill	70	35
Entrepreneurial skill	40	20
Technical skill	90	45
Nothing	0	0
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table and chart depict that 35% of respondent are able to develop leadership skill, 20% respondent are able to develop gain entrepreneurial skill, 45% of respondent are able to develop technical skill. Hence most of the women were able to develop technical skill after joining Kudumbashree

HELPS TO INCREASE INDIVIDUAL/FAMILY HEALTH

TABLE 12

Helps to increase individual/family health	Frequency of respondent	Percentage (%)
Yes	185	92.5
No	15	7.5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The above table depicts that 92.5% of respondent are able to increase individual/family health, 7.5% respondent are not able to increase individual/family health. Hence it can be concluded that most of the women are able to increase individual/family health after joining Kudumbashree.

HELPS TO GAIN KNOWLEDGE AND PUBLIC AWRENESS

TABLE 13

Helps to gain knowledge and public awareness	Frequency of respondent	Percentage (%)
highly	165	82.5
To some extent	30	15
Not aware	5	2.5
Total	200	100

Source: compiled from questionnaire

INFERENCE

The table and chart show that 82.5% of respondent are able to gain knowledge and public awareness, 15% of respondent able to gain knowledge to some extent and 2.5% of respondent did not gain knowledge and hence most of the women were able to gain knowledge and public awareness highly

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CORRELATION

1) Correlation between age group, marital status, attribute and awareness of schemes offered

Correlations		age group	marital status	additional attribute	awareness of schemes offered
age group	Pearson Correlation	1	.990*	.665	-1.000**
	Sig. (2-tailed)		.010	.335	.
	N	4	4	4	2
marital status	Pearson Correlation	.990*	1	.749	-1.000**
	Sig. (2-tailed)	.010		.251	.
	N	4	4	4	2
attribute	Pearson Correlation	.665	.749	1	1.000**
	Sig. (2-tailed)	.335	.251		.
	N	4	4	4	2
awareness of schemes offered	Pearson Correlation	-1.000**	-1.000**	1.000**	1
	Sig. (2-tailed)	.	.	.	
	N	2	2	2	2
*. Correlation is significant at the 0.05 level (2-tailed).					
**. Correlation is significant at the 0.01 level (2-tailed).					

INTERPRETATION

The above table depicts the correlation done on age group, marital status, attribute and awareness of schemes offered. With the help of this correlation we can identify that age group, marital status, and attribute are having positive correlation and awareness of schemes offered is having negative correlation. So it can be concluded that women are not properly aware about the schemes offered

REGRESSION

1) Regression of awareness of schemes offered and age group

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	awareness of schemes offered	.	Enter
a. Dependent Variable: age group			
b. All requested variables entered.			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000a	1.000	.	.
a. Predictors: (Constant), awareness of schemes offered				

ANOVAa					
Model		Sum of Squares	do	Mean Square	F	Sig.
1	Regression	50.000	1	50.000	.	.b
	Residual	.000	0	.		
	Total	50.000	1			
a. Dependent Variable: age group					
b. Predictors: (Constant), awareness of schemes offered					

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	45.000	.000		.	.
	awareness of schemes offered	-.200	.000	-1.000	.	.
a. Dependent Variable: age group						

INTERPRETATION

The above table shows the regression of age group and awareness of schemes offered. We can identify that beta is negative. Hence it can be concluded that there is no proper awareness of schemes offered in all age groups

2) Regression of improvement in life and level of participation public life

Variables Entered/Removeda			
Model	Variables Entered	Variables Removed	Method
1	improvement in life	.	Enter
a. Dependent Variable: increase in level of participation in public life			
b. All requested variables entered.			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000a	1.000	.	.
a. Predictors: (Constant), improvement in life				

ANOVAa					
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3200.000	1	3200.000	.	.b
	Residual	.000	0	.		
	Total	3200.000	1			
a. Dependent Variable: increase in level of participation in public life					
b. Predictors: (Constant), improvement in life					

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Coefficientsª						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.807	.000		.	.
	improvement in life	.964	.000	1.000	.	.
a. Dependent Variable: increase in level of participation in public life						

INTERPRETATION

The above table shows the regression of improvement in life and level of participation. We can identify the value of beta is positive hence it can be concluded that Kudumbashree helps in increase in level of participation which automatically shows the improvement in life.

FINDINGS

1) Majority of women in Kudumbashree are between age group of 29-39
2) Most of the women in Kudumbashree had completed plus two
3) Most of the women used to attend meeting
4) Most of the women in Kudumbashree used to show interest in coordinating program
5) Majority of women became financially strong after joining in Kudumbashree
6) Most of the women were able to increase level of participation in public life
7) Most of the women are having improvement in life after joining Kudumbashree
8) Some women are not aware about schemes offered

RECOMMENDATIONS

The following are suggestions to enhance women empowerment:

1. Kudumbashree members should be given proper information regarding the programs which are going to be implemented
2. Kudumbashree member should be given entrepreneurial development programs
3. Kudumbashree member should be given training to carry out various programs

CONCLUSION

Women empowerment leads to social development, economic development and financial independence in our country. Economic development of women leads to better living status in the family, and also in society. The women have become very active participants in planning the various programs and implementation of various programs. The study helped to get an insight on women empowerment acquired by Kudumbashree members after joining in the Kudumbashree program. Most of the people were able to have their own savings and earning after joining Kudumbashree. Decision making power, skills, and awareness of the women were improved with the help of Kudumbashree.

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ANNEXURE

QUESTIONNAIRE
INFLUENCE OF WOMEN EMPOWERMENT THROUGH KUDUMBASHREE IN KANNUR (KERALA)

Dear Madam: I am doing a research study on "Influence of Women Empowerment through Kudumbashree in Kannur (Kerala) as part of my academic requirement. As a member in Kudumbashree your input will be very valuable for me to draw suitable inferences. Therefore, I request you to take a few minutes of your precious time to answer the following questions. I assure you that this is purely for academic purpose and the information provided by you will be treated with utmost confidentiality. Thanking you,

SHILPA.S

Name (optional)

(For the following questions, please tick the appropriate box)

1) Age Group (years):
   18 -28
   29-39
   40-50
   More than 50

2) Marital status:
   Unmarried
   Married
   Divorced/Separated
   Widow

3) Education qualification:
   Below SSLC
   SSLC
   Graduation
   Post graduation
   Above post graduation

4) Do you participate in meetings conducted by Gramasabha?

    Always

    Sometimes

    Rarely

    Never

5) Are you showing interest in coordinating programmes organized by Kudumbashree

    Greatly interested

    Moderately interested

    Occasionally get interested

    No interest

6) What additional attributes you have been able to get after joining Kudumbashree?

    Became Financially strong

    Can achieve Self decision making

    Ability to help others also

    Dependent on others is reduced

7) Whether after joining in Kudumbashree helps to increase level of participation in public life

    Yes

    No

8) Do you feel whether there is improvement in your life after joining Kudumbashree?

    Yes

    No

9) Classification on the basics of type of changes created after joining Kudumbashree

    Own saving and earning

    Financial empowerment

    More courage

    Deal with multiple people

    Any other

10) Are you aware about the various schemes offered by government?

    Yes

    No

11) What types of skills have you developed after joining in Kudumbashree?

    Leadership skills

    Entrepreneurial skill s

    Technical skills

    Nothing

12) Do you feel whether Kudumbashree helps to increase individual/family health and social security?

    Yes

    No

13) Have you gained knowledge about women's rights and public awareness after joining in Kudumbashree?

    Highly

    To some extent

    Not aware

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HEALTH POLICY AND DEVELOPMENT WITH SPECIAL REFERENCE TO ORGANIZATION AND MANAGEMENT OF GOVERNMENT HOSPITALS IN KARNATAKA WITH EMPHASIS ON K.R. PET GOVERNMENT HOSPITAL MANDYA DISTRICT, KARNATAKA

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ABSTRACT

'Health is an asset to every person'. In this study, an attempt is made to analyze the present organization and management of health system in Karnataka, specifically the government hospitals. Provision of Universal Health Care is one of the core objectives of any Welfare State. In fact, Article 21 of the Constitution of India, lays that Right to Life as one of the Fundamental Rights of a person. Thus, it becomes the primary duty of any government in any State to provide this essential service to all – irrespective of economic and social status. While the policy makers of the country had this broad framework in my mind, the reality is far from its ideal settings. The study aims at, the conceptual issues pertaining to health sector and an analysis of the global health policy scenario and the brief explanation about the Health Policy of Government of India and that of the State of Karnataka, Micro planning in K R Pete Taluk. From the study it is concluded that the Hospital has most of the facilities needed for a modern hospital, there is scope for further strengthening and improvement.

KEYWORDS
health policy, government hospitals, K.R. Pet government hospital, provision of universal health care.

INTRODUCTION
ealth for All' is a cherished goal of all governments the world over. India is no exception, and in fact, is one of the pioneering countries that have introduced 'Universal Health Care' that entitles every citizen access to publicly provided health service. The Constitution of India has incorporated provisions that would promote good health amongst its citizens. How effective is the policy aspiration translated into measurable quantitative results, is an important question that needs to be answered through suitable empirical and other studies? The present study aims at one such micro analysis, especially pertaining to one of the Government hospitals located in the District of Mandya, which is part of the State of Karnataka in India.

Better health is central to human happiness and well-being. It also makes an important contribution to economic progress, as healthy populations live longer, are more productive, and save more.

Many factors influence health status and a country's ability to provide quality health services for its people. Ministries of health are important actors, but so are other government departments, donor organizations, civil society groups and communities themselves. For example: investments in roads can improve access to health services; inflation targets can constrain health spending; and civil service reform can create opportunities - or limits - to hiring more health workers.

OBJECTIVES OF THE STUDY
The study aims at analysing the following issues:
1. A brief analysis is made to clear the conceptual issues pertaining to health sector and an analysis of the global health policy scenerio.
2. As a background to the study, a brief explanation is given about the Health Policy of Government of India and that of the State of Karnataka.
3. The general organizational and managerial set up hightlighting the inter dependent nature of each of the unit.
4. A particular study is made of a Government Hospital in the back ground of a semi-urban setting, namely, K. R. Pet Government Hospital, which is part of Mandya District in the State of Karnatka.
5. In the light of the above analysis, suitable recommendations will be made for implementing a more egalitarian health policy in the State.

REVIEW OF LITERATURE
A large number of studies have been carried on the world over pertaining to the link between health and economic progress the world over. The studies conducted by international organizations like the WHO, individual governments both at the union and state levels, sample surveys especially the National Sample Survey Organization in India, have all pointed out to significant contributions that good health can make to foster social and economic progress of communities, both at the national and regional levels. The present study, however, differs from others in the sense that it has tried to take up a micro studyof a relatively agricultural oriented region of the State, namely, K.R. Pet Taluk of Mandya and the facilities available at the Government Hospital.

CONCEPT OF HEALTH
A generally accepted definition is that of WHO. It defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. (http://www.who.int) The definition seeks to include social and economic sectors within the scope of attaining health and reaffirms health

as a human right. Thus it is a broad concept that incorporates both preventive and curative dimensions. It is important to keep this broader definition in mind while analysing the state of health of any geographical area.

Public Health is defined as 'The science and art of preventing disease, prolonging life and promoting health through the organized efforts of society'. (This definition, coined in 1988 in the Public Health in England report by Sir Donald Acheson, reflects the essential focus of modern public health.)

CONCEPT OF HEALTH POLICY

Closely allied to the above, is the idea of Health Policy. It refers to decisions, plans, and actions that are undertaken to achieve specific **health** care goals within a society. An explicit **health policy** can achieve several things: it defines a vision for the future which in turn helps to establish targets and points of reference for the short and medium term. (www.who.int/topics/health_policy).

THE EVOLUTION OF GLOBAL HEALTH POLICY

One of the first attempts at the global level to give a standardised health policy direction is the **Declaration of Alma-Ata** adopted at the International Conference on Primary Health Care (PHC), Almaty (formerly Alma-Ata), Kazakhstan (formerly Kazakh Soviet Socialist Republic), 6-12 September 1978. It expressed the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all people. It was the first international declaration underlining the importance of primary health care. The primary health care approach has since then been accepted by member countries of the World Health Organization (WHO) as the key to achieving the goal of 'Health For All' but only in third world countries at first. This applied to all other countries five years later. The main highlights of this Declaration may be summarised as follows:

- The declaration highlighted the inequality between the developed and the developing countries and termed it politically, socially and economically unacceptable.
- Health as a socio-economic issue and as a human right
- The third section called for economic and social development as a pre-requisite to the attainment of health for all. It also declared positive effects on economic and social development and on world peace through promotion and protection of health of the people.
- Participation of people as a group or individually in planning and implementing their health care was declared as a human right and duty.
- This section emphasized on the role of the state in providing adequate health and social measures. This section enunciated the call for 'Health For All' which became a campaign of the WHO in the coming years. It defined Health for all as the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. The declaration urged governments, international organizations and the whole world community to take this up as a main social target in the spirit of social justice.
- This section defined primary health care and urged signatories to incorporate the concept of primary health care in their health systems. Primary health care has since been adopted by many member nations. More recently, Margaret Chan, the Director-General of the WHO has reaffirmed the primary health care approach as the most efficient and cost-effective way to organize a health system. She also pointed out that international evidence overwhelmingly demonstrates that health systems oriented toward primary health care produce better outcomes, at lower costs, and with higher user satisfaction.
- The seventh section lists the components of primary health care. The next two sections called on all governments to incorporate primary health care approach in their health systems and urged international cooperation in better use of the world's resources.

It is clear from the above that the National Health Policies of countries, especially that of India is influenced by this Declaration.

HEALTH POLICY OF GOVERNMENT OF INDIA

The Constitution of India makes **health in India** the responsibility of state governments, rather than the central federal government. It makes every state responsible for 'raising the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties'. The National Health Policy was endorsed by the Parliament of India in 1983 and updated in 2002. The National Health Policy is being worked upon further and a draft for public consultation has been released in 2015.

Although the National Health Policy (NHP) in India was not framed until 1983, India has built up a vast health infrastructure and initiated several national health programmes in government, voluntary and private sectors under the guidance and direction of various committees (Bore, Mudaliar, Kartar Singh, Srivastava), the Constitution, the Planning Commission, the Central Council of Health and Family Welfare, and Consultative Committees attached to the Ministry of Health and Family Welfare. The period after 1983 witnessed several major developments in the polices impacting the health sector - adoption of National Health Policy in 1983, 73rd and 74th Constitutional Amendments in 1992, National Nutrition Policy in 1993, National Health Policy in 2002, National Policy on Indian System of Medicine and Homeopathy in 2002, Drug Policy in 2002, introduction of Universal Health Insurance schemes for the poor in 2003, and inclusion of health in Common Minimum Programme of the UPA Government in 2004.

The first National Health Policy in 1983 aimed to achieve the goal of 'Health for All' by 2000 AD, through the provision of comprehensive primary healthcare services. It stressed the creation of an infrastructure for primary healthcare; close co-ordination with health-related services and activities (like nutrition, drinking water supply and sanitation); the active involvement and participation of voluntary organizations; the provision of essential drugs and vaccines; qualitative improvement in health and family planning services; the provision of adequate training; and medical research aimed at the common health problems of the people.

The main objective of the revised National Health Policy, 2002 is to achieve an acceptable standard of good health among the general population of the country and has set goals to be achieved by the year 2015. The major policy prescriptions are as follows:

➢ Increase public expenditure from 0.9 percent to 2 percent by 2010.
➢ Increase allocation of public health investment in the order of 55 percent for the primary health sector; 35 percent and 10 percent to secondary and tertiary sectors respectively.
➢ Gradual convergence of all health programmes, except the ones (such as TB, Malaria, HIV/AIDS, RCH), which need to be continued till moderate levels of prevalence are reached.
➢ Need to levy user charges for certain secondary and tertiary public health services, for those who can afford to pay.
➢ Mandatory two years rural posting before awarding the graduate medical degree.
➢ Decentralising the implementation of health programmes to local self governing bodies by 2005.
➢ Setting up of Medical Grants Commission for funding new Government Medical and Dental colleges.
➢ Promoting public health discipline.
➢ Establishing two-tier urban healthcare system - Primary Health Centre for a population of one lakh and Government General Hospital.
➢ Increase in Government funded health research to a level of 2 percent of the total health spending by 2010.
➢ Appreciation of the role of private sector in health, and enactment of legislation by 2003 for regulating private clinical establishments.
➢ Formulation of procedures for accreditation of public and private health facilities.
➢ Co-option of NGOs in national disease control programmes.
➢ Promotion of tele medicine in tertiary healthcare sector.
➢ Full operationalisation of National Disease Surveillance Network by 2005.
➢ Notification of contemporary code of medical ethics by Medical Council of India.
➢ Encouraging setting up of private insurance instruments to bring secondary and tertiary sectors into its purview.
➢ Promotion of medical services for overseas users.
➢ Encouragement and promotion of Indian System of Medicine.

Through the 73rd and 74th Constitutional Amendment Acts (1992), the local bodies (Municipalities and Panchayat) have been assigned 29 development activities, which have a direct and indirect bearing on health. These include health and sanitation (covering hospitals, PHCs and dispensaries), family welfare, drinking water, women and child development, the public distribution system and poverty alleviation programmes. (www.cccindia.co/corecentre/guest/health/article)

NATIONAL HEALTH POLICY 2015

The NHP 2015 the Draft of which has been put in the public domain has the following Goals, Principles and Objectives:

o   The goal of the is the attainment of the highest possible level of good health and wellbeing, through a preventive and promotive health care orientation in all developmental policies and universal access to good quality health care services without anyone having to face financial hardship as a consequence.
o   The policy envisages increasing the public investment in health to 2.5percent of GDP.
o   The draft policy seeks to mobilise the additional fiscal resources through direct taxation, health cess and sin tax imposed on tobacco, alcohol and other products that adversely affect health.
o   Preventive and promotive strategies for health cannot work in isolation and need to be linked to food security, water supply and sanitation facilities.
o   Food security forms an important component of good health outcomes
o   The policy reiterates the educational needs of adolescents for sexual and reproductive health (SRH) education
o   The policy recognizes that many of the social determinants of health fall beyond the scope of the Ministry of Health and will require advocacy with other ministries.
o   The policy has addressed the issue of Electronic Health Records (EHR) or Electronic Medical Records (EMRs) within a framework for privacy
o   The policy recognizes the role of governance in public health and the need for a dedicated public health cadre trained in management to achieve the goals envisaged in the policy.

(https://www.sctimst.ac.in/RESOURCES/DNHP2015)

HEALTH POLICY OF GOVERNMENT OF KARNATAKA

Karnataka state is one of the pioneer states in the country in providing comprehensive public health services to its people. Even before the concept of Primary Health Centers was conceived by the government of India, the state had already made a beginning in establishing a number of PHU's for providing comprehensive Health Care, and a delivery system consisting of curative, preventive, promotive and rehabilitation health care, to the people of the state. 'HEALTH' is an asset to every person.

The Karnataka health policy perspective and goals may be summarised as follows:

1.   To provide integrated and comprehensive primary health care.
2.   To establish a credible and sustainable referral system
3.   To establish equity in delivery of quality health care.
4.   To encourage greater public private partnership in provision of quality healthcare in order to better serve the underserved areas.
5.   To address emerging issues in public health.
6.   To strengthen health infrastructure.
7.   To develop health human resources.
8.   To improve the access to safe and quality drugs at affordable prices.
9.   To increase access to systems of alternative medicine. Indicators and systems for monitoring and evaluation that would allow review and assessing of progress towards achieving specific objectives that derive fromthe goals would be formulated and put in place.

(www.karhfw.gov.in)

ORGANIZATIONAL STRUCTURE OF GOVERNMENT HOSPITALS IN KARNATAKA

The Health Secretariat is the official organ of the Health and Family Welfare Department. The Principal Secretary to the Government and other officers of the Secretariat are monitoring different activities of the department and also fulfilling the needs of the Department. The following indicates the organizational structure of government hospitals in Karnataka:

i) AT STATE LEVEL (TERTIARY CARE LEVEL)
Medical colleges
EX: Banglore Medical College, Mysore Medical College
Super Speciality Hospitals
Ex: Nimhans, Jayadeva Hospital, Kidwai Cancer Hospital
ii) AT DISTRICT LEVEL (SENCONDARY CARE LEVEL)
District Hospitals
iii) AT TALUK LEVEL (FIRST REFERAL UNIT)
Taluk Health Hospitals
iv) AT VILLAGE LEVEL (PRIMARY CARE LEVEL)
CHCs (Community Health Centers)
PHCs (Primary Health Centers)
Sub Centers

DIRECTORATE OF HEALTH AND FAMILY WELFARE SERVICES

Directorate of Health and Family Welfare Services is strengthened from time to time establishing various divisions such as Health Man Power, Planning, Integrated Diseases Surveillance Project and Communicable Diseases Control, Malaria, RCH, Tuberculosis, Development of Medical Institutions (Karnataka Health Systems Development Project), National Rural Health Mission and other Welfare Schemes including Mental Health, School Health and Cancer control Programme are also implemented.

The Head Office of the Directorate of Health & Family Welfare Services is located in the State Head Quarters, which has got Director of Health and Family Welfare Services as the Head of the Department and assisted by several Additional Directors, Joint and Deputy Directors to implement and monitor several Centrally sponsored & State sponsored Health Programmes. There is a separate Project Director to implement & monitor the activities of National AIDS Control Organization (NACO).

There are Joint Directors for Health & Planning, Public Health Institute, Communicable Diseases, Health Education & Training, IEC, RCH, Ophthalmology, Tuberculosis, Leprosy & Malaria, Joint Director(Medical). These Joint Directors are assisted by respective Deputy Directors.

STATE INSTITUTE OF HEALTH & FAMILY WELFARE

There is a separate State Institute of Health & Family Welfare to modernize training activities of the Department. There is Director for this Institute with a Joint Director and 10 Deputy Directors. The purpose of this Institute is to design training activities for the different professionals of the Department. Induction Training, In-service Training, outside deputations for Training and skill based Training are planned by this Institute. Preparation of Training Modules, Training Schedules and Pre and Post Training evaluation are also under taken by the Institute. There is a proposal to upgrade the Institute to the National & International level to impart Post Graduate Training & Degree and Diploma Courses which are useful for the day to day activities of the Department. Negotiations are being held to affiliate this Institute to Rajiv Gandhi University of Health Sciences and present teaching infrastructure would be upgraded accordingly.

The Department has Four Divisional Deputy Directors at the respective Revenue Divisions of Bangalore, Mysore, Belgaum, and Gulbarga to implement and monitor control programmes for vectorborne disease like Malaria, Filaria, JE and Chikungunya at District Level. District Health & F. W. Officers, and District Surgeons would take care of Health & Clinical requirements of Districts. The District Health & FW Officer is the over all head of the District for all the Health related activities of District excluding District Hospital / Civil Hospital which is headed by District Surgeon.

The District Health & FW Officer is attached to Zilla Panchayath who administratively comes within the Zilla Panchayath establishment. He is responsible for implementing National Health Programmes and other Health Care & promotive activities. He is the administrative head of all Medical/ Health Institution in the District excepting District Head Quarters Hospital and other Hospitals having bed strength 100 and above. The Medical Colleges and the Medical Institutions attached to these colleges are separately monitored by the respective colleges and by the Director of Medical Education.

Ayurveda, Yoga, Unani, Siddha, Homeopathy (AYUSH) Institutions are separately monitored by the Director of Indian Systems of Medicines & Homeopathy through his Deputy Directors.

District Surveillance Officers will monitor the activities of District Health Laboratories & they report to the District Health & FW Officers for all administrative matters. They are duty bound to implement technical guidelines issued by Project Director (IDSP).

District Health & FW Officers are further assisted by respective Programme Officers for Malaria, RCH, Leprosy, TB, and Mental Health. There are Taluk Health Officers in each revenue Taluk who is administratively responsible to implement the Health Programmes. He is assisted by the Medical Officers of the Primary Health Centers (PHCs) and Primary Health Units(PHU). At the Head Quarters of the District, excepting Bangalore and Mysore there are Districts Head Quarters Hospitals exclusively for curative purposes. Each District Hospital is headed by District Surgeon with other specialists of different specialities.

The Community Health Centers (CHCs) are established by upgrading one out of every four PHCs covering population of 1.2 Lakhs. The CHCs of 30 beds containing three specialties namely Medicine, Surgery, and Gynaecology. Dental faculty is an additional speciality now introduced in the CHCs. At the Sub Division level there are CHCs of 50 beds covering five specialities namely Medicine, Surgery, Paediatrics, Gynacology and Dental Surgery. Some of these CHCs are being upgraded further into 100 beded Hospitals. The Government of Karnataka is contemplating to upgrade all Taluk Level Hospitals /CHCs in to One Hundred beds.

Primary Health Centres are established covering population of 30,000 in plain areas & 20,000 in hilly & tribal areas. Community Health Centers are upgraded from PHCs to cover Primary and Curative Services. They also act as the First Referral Units to the surrounding PHCs.

By strengthening Primary Health Centers, a health care delivery activity in the areas as per the Government of India pattern is adopted. Primary Health Centers provide primary health care in the areas through the network of sub-centers and other Para Medical Staff. Primary Health Care includes preventive services, curative services, environmental sanitation, health education, family welfare services and recording of health statistics of various National Health Programmes which are in force from time to time and also implementing through a network of Primary Health Centers.

In addition to above institutions there are General Hospitals and Civil Hospitals in the State. These Hospitals were existing earlier to re-organization. The Government is considering to rationalize nomenclature of these Institution.

The sub centers are established to cover rural population of five thousand in plain and maiden areas and three thousand in Hilly, Tribal and Inaccessible and remote areas. Each sub centers are managed by a Junior Health Assistant(Female)and complemented by Junior Health Assistant (Male), who cover the area allotted to them. (http://karhfw.gov.in/)

GOVERNMENT HOSPITAL IN K.R.PET, MANDYA DISTRICT: AN ANALYSIS OF ITS ORGANIZATION, FACILITIES, AND PROBLEMS
AN INTRODUCTION TO MANDYA DISTRICT

The district of Mandya came to existence when the Mysore District was divided in 1939. As per 1941 census, the then newly formed district had 7 taluks, 29 hoblis, 1489 (1342 habited and 147 uninhabited) villages and nine towns. But after 1961 as Keragodu and Sheelanere became Hobli headquarters, hobli numbers raised to 31. In the meantime, few villages were transferred to the neighbouring districts. This district with 4,961 sq.km area, at present has 7 taluks, 31 hoblis, 1478 (1365 habited and 113 uninhabited) villages, 653 hamlets and 7 towns. If the Krishnarajpet taluk has highest number (366) of villages, Srirangapatna taluk (96) has least number of villages. Although places like Srirangapatna, Kunthibetta, Maralahalli, Halagur and Muttati of prehistoric significance are in the district, places like Keragodu, Kolugala, Belkere, Bembampalu, Punisepattiand the then newly formed Pallava tataka (present day Hallegere) situated in the Keragodu Vishaya, are the earliest mentioned villages recorded in the Hallegere (Mandya taluk) copper plate grant of 713 A.D. Likewise, villages like Sripura and Ponnalli are the two other villages found mentioned in the Devarahalli (Nagamangala Tq) copper plate record of 776 A.D. The earliest reference to 'Mandya', the district headquarters is found in an epigraph of 1276 AD, hailing from Hosaboodanur, the neighbouring village wherein, it is refered as; 'Agrahara Mandeya'. In an yet another copper plate inscription of Krishnadevaraya, dated 1516 A.D. the place is called as Krishnarajapura along with its usual name viz. 'Agrahara Manteya' along with Chikka Manteya. Later, due to the increase in habitation sites, how, new villages started increasing in the region is testified by the epigraphs of later period. (Mandya District Gazetteer, published by Government of Karnataka).

K.R. PETE GOVERNMENT HOSPITAL

As noted above Krishnarajpet taluk has highest number (366) of villages and thus it is only natural that it should be equipped with the best possible health care facilities to take care predominantly of rural population. The following additional information about K.R. Pet Taluk may be useful in the context of the current study:
1) POPULATION - 261568
2) No. of CHCs (Community Health Centers):1
3) No. of PHCs (Primary Health Centers): 19
4) No. of Primary Health Centers (24*7) - 3
5) Number of Sub Centers - 62
6) General Hospital – 1 (located at K.R. Pete town)

Notes:
A) **PHC**-(PRIMARY HEALTH CENTER,) Services provided from 9.30 to 4.30, services provided are OPD, day care IP, ANC (ANTINATAL CARE), Immunisation.
B) **PHC 24*7**- Above all the services + 24*7 delivery services
C) **CHC** (COMMUNITY HEALTH CENTERS)- Services includes A + B and other facilities like medicine, surgery, paediatrics, OBG.
D**) SUB CENTERS**- facilities provided are ANC, Immunisation.

GENERAL HOSPITAL IN KR PETE

The present study is aimed at briefly examining the various facilities available in this predominantly rural population dominated Government Hospital. The General Hopital is located in the Taluka HQs namely, K.R. Pete in Mandya District. The Hospital has most of the facilities that a good hospital should have and the following are worth mentioning:

1. It is a 100 bedded hospital

2. The facilities available and the departments are as follows:
A) Emergency Services
B) Ambulance Services
C) Neonatal Care Unit
D) Antenatal Care and Deliveries
E) Surgical Facilities
F) Paediatric OPD and IP
G) General Medicine OPD and IP
H) Orthopedics OPD and IP

I)   General Surgery Opd and IP
J)   Obs and Gynecology Opd and IP
K)   ENT, OPD and IP
L)   Ophtholmology OPD
M)   Referal Centre
N)   Lab Services

3. Number of Outpatients: 5000/MONTH (160/DAY)
4. Number of Inpatients: 500/MONTH (17/DAY)

It is clear from the above that as the General Hospital of the Taluka, it has most of the important departments needed for a proper health care.

PROBLEMS

Similar to the problems faced by any other Government Hospital, K.R. Pet General Hospital is also facing the following common problems:

A)   Staff Deficiency
B)   Deficiency of Equipments
C)   Deficiency off Skilled Persons
D)   Transportation Problem

SUGGESTIONS

In the light of the present study and keeping in view the future needs the following suggestions may be made to make this major Hospital of the Taluka, a truly source of genuine health care.

1)   There is need to increase the number of beds for the inpatients in the Hospital. If one looks at the population of the Taluk and the number of beds in the Hospital, it is clear that there is need to increase the number to a more realistic level. The conservative population of the Taluk is 261568 which is rising by the day, and even at this conservative number, there is only one bed for a population of 2615. This should at least increase to 200 bedded hospitals, so that there will be one bed for 1000 population.

2)   Among the departments currently operating, one major department that is missing is the Cardiology department. It is now a major health related problem being faced by both urban and rural population. Thus, there is need for establishing a dedicated Dept of Cardiology department which can act both as a curative and palliative agency.

3)   Preventive care units such as those related to diabetics and other water borne diseases need to be strengthened further.

4)   It is clear that the Hospital is strong with you pre-natal and anti-natal services and efforts may be made to strengthen further.

CONCLUSION

The above analysis captures the health scenario both at a macro and a micro level. While the macro issues cover both the global and national health policies related issued, the micro study has related to a predominantly agriculture oriented region of the State of Karnataka, namely, K.R. Pete Taluk in the District of Mandya. While the Hospital has most of the facilities needed for a modern hospital, there is scope for further strengthening and improvement.

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LIVESTOCK AND NOMADIC PASTORALISTS: A LITERATURE REVIEW

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ABSTRACT

Gujjars and Bakarwals constitute a significant proportion of the population of the state. Gujjars and Bakarwals are nomadic in nature and depend on livestock rearing as their main source of livelihood. Nomadic pastoralism is an age-old livelihood option for millions of people of different castes and ethnic groups and makes an important contribution to the economy. It is prominent across the Himalaya where the communities such as Gaddis, Gujjars and Bakarwals practice varying forms of herding, livestock products are the main outputs of these communities. In some developing countries, the livestock sector accounts for 50-80 percent of the GDP. The main diet of Gujjars and Bakarwals consists largely of livestock products, primarily in the form of milk. Nomadic pastoralists refer to herders who depend entirely on the sale and exchange of their animals for their livelihood, pursuing opportunistic and irregular migration routes. Most of the Gujjars and Bakarwals of the state are still practicing nomadic lifestyle. Gujjars and Bakarwals play the prominent role in the economy of Jammu and Kashmir.

KEYWORDS
nomadic pastoralism, livestock, livestock products, livelihood.

INTRODUCTION

Pastoralism is the primary source of livelihood in many arid and semi-arid regions of the world, especially in central Asia and sub-Saharan Africa (Brown 1971; Goldstein et al. 1990; Homewood and Rodgers 1991; Prins 1992). The term pastoralism sometimes used interchangeably with the term nomadism. Pastoralism reflects a lifestyle based upon maintenance of herds of animals that depend mainly on natural vegetation for their food. This dependence along with migration to water, away from the disease in response to other pressures, determines the seasonal and daily movements of pastoralists (Awogbade, 1991). Pastoralism is an age-old livelihood option for millions of people of different castes and ethnic groups and makes a significant contribution to the economy of the Hindu Kush Himalayas (HKH), both regarding providing employment and income opportunities and in supplying nutrition to the rural poor (Brooks 2006).

Pastoral groups are divided into two main groups: nomadic pastoralists and transhumance pastoralists. Transhumance pastoralists are those who have a permanent homestead; and they follow a seasonal migratory pattern that can vary from year to year. Nomadic pastoralists do not have a permanent homestead. The timing, routes and destinations of migrations are determined primarily by the needs of the herd animals for water and fodder. They live directly on the products of their livestock and herds. Livestock makes a multi-faceted contribution to socio-economic development of nomadic people. Pastoral nomads are usually self-sufficient regarding food and most other necessities (Swift, 1991).). In pastoralism the term nomadic is only used when mobility is high and in irregular patterns; transhumant when there are regular back-and-forth movements between relatively fixed locations; and sedentary for those who stays permanently at one place (Rangnekar 1992).

REVIEW OF LITERATURE

The nomadic pastoralism emerged as a specialisation from a sedentary Neolithic farming economy that relied on both agriculture and animal husbandry (Barfield, 1993). Chatwin (1987) and Vajnshtein et al. (1978) also support the hypothesis that pastoralism nomadism originated from a settled mixed-farming economy, with the eventual transition among some tribes from the sedentary form of pastoralism to specialised mobile form like nomads. According to Khazanov (1994) and Flannery (1965) pastoralism developed after agriculture and most likely developed as people migrated into areas of low productivity or regions of unreliable rainfall. As a result, these people came to rely on domesticated animals for subsistence instead of agricultural crops as stated by Salzman (2004) and Cummins (2009).

Transhumance describes regular herd movements between fixed points in function of the seasonal availability of pastures. Transhumant pastoralists mostly have a permanent homestead and practice herd splitting. Agro-pastoralists are sedentarized groups who engage in a mix of crop production and (usually smaller size) livestock herds (Blench, 2001). Pastoralism is often seen as an outdated way of living and a form of land use which is unviable and even irrational (HPG, 2006; Oxfam, 2008).

Pastoralists can be defined as households that gain more than 50 percent of their income from livestock on unimproved pastures, while agro-pastoralists would be households that gain more than 50 percent from cultivation (Markakis 2004). While mobile pastoralists rely heavily on dairy and livestock products, agropastoralists depend on both livestock and agricultural products. Livestock products are the main outputs of grazing lands and this sector continue to be the fastest growing agricultural subsector throughout the world. In some developing countries, the livestock sector accounts for 50–80 percent of GDP (World Bank, 2007). According to Watson et, al. (2000) the pastoralists as a production system has the greatest potential to meet the subsistence needs of humans, maintain ecosystem health and minimise the negative impacts of climate change through proper grazing managements in arid and semi-arid areas. According to Spore (2008) and Rodriguez (2008) many farmers will diversify their agricultural activities to livestock-keeping. According to Birthal et al. (2002), Livestock is a significant source of income and employment for this section of the society and also helps in alleviating poverty and smoothening of the income distribution. A recent study by Yakob and Catley (2010) reveals that pastoral areas not only meet most of the domestic demand for meat but are also export most of the suppliers of livestock.

Most of the pastoral Gujjars are still practising transhumance and migrate with their livestock between summer and winter pastures. The winter camps are dispersed in the state forests of the Shiwaliks, foothills to the eastern Himalayas (Gooch, 1992). Pastoralists keep more than one species of livestock, they can generate an extensive variety of livestock products and make better use of the available forage in different seasons, even in times of crisis. Migration of people with their livestock proceeds between previously embarked sites, which become more or less regular seasonal encampments or bases (ICMOD 1996; Mishra 1997). Depending on their migratory pattern behaviour and engagement with other non-pastoralist economic activities the pastoralists can be classified (Baxter, 1993). Pastoralists contribute to the national economy by producing red meat, milk, and wool. According to Sharma, et al. (2003) pastoralism has made a tremendous contribution to the economic system of the developing countries in providing employment opportunities as well as income and in providing the requisite amount of nutrition to the poor people. But the fact remains that pastoralism as an economic system is constantly being threatened by various government policies instead they are providing various services to the country.

The World Initiative for Sustainable Pastoralism (WISP, 2007) divides the values to be gained from pastoralist systems into two categories i.e. direct values and indirect values. Direct values include products such as milk, fibre (wool), meat, and hides. Other values include employment, transport, knowledge, and skills. Indirect values include the benefits of agricultural inputs such as manure and products that complement pastoral production from rangelands including honey and medicinal plants. They also include services from good rangeland management like biodiversity conservation and wildlife tourism.

Swift (1986) and Sikana et al. (1993) studies revealed that the primary requirements for pastoralist production are livestock, labour, and access to key grazing land and water resources. Most Common and favourable terms of trade for pastoral production against grain make it viable for people to make a living by selling milk or meat from even relatively low herd numbers. According to Galaty and Johnson (1990), the pastoral production involves a relationship between factors of land, livestock and labour, in this equation, livestock-a capital good serve as a technology for transforming otherwise indigestible cellulose into consumable products.

Sheep are not only raised for meat but also for the wool economy at regional and national level. The migratory pattern adapted by specialist pastoral communities involves their connection to reliable wool markets in distant communities (Rathore 1993).

According to Goldstein and Beall (1990), the nomadic, semi-nomadic and transhumant pastoralist societies have lifestyles that revolve mainly around their livestock. The main diet of pastoral peoples consists mainly of livestock products, primarily in the form of milk. Hence keeping female livestock is important for this reason. But seasonal fluctuations of rainfall greatly affect the availability of milk, particularly during the dry season when it becomes scarce. According to Aggarwal et al., (2003) The majority of pastoralists consume milk and produce a range of dairy products, yet marketing of those goods is often limited or restricted. In Rajasthan, India, camel milk is a by-product of camel breeding which is traditionally consumed by herdsmen (especially on migration) and by their families. Pastoralist institutions in India recently mounted a successful legal challenge to the prohibition of camel milk sales. With increasing commoditization of camel milk, and weakening of cultural taboos on the selling of camel milk, the income generated from milk sales can exceed the returns from selling the young male offspring. According to Bolwig et al., (2007) the livestock sector is growing faster than any other agricultural sub sector internationally, nationally as well as regionally. Changthang nomads represent one of the last great examples of a nomadic pastoral way of life which was once common in many regions of the world. According to Beck (1980), Little (1985) and Rao (1995) the future of pastoralist populations is far from certain. While nomadic or mobile livestock herding has been a successful food production system in arid lands, the problems of population growth, competition for land with other pastoralists, farmers, commercial estates, game parks, and urban areas are increasingly preventing pastoral producers from traditional mobility and flexibility necessary to survive.

According to Aggarwal (1999); Gooch (1992) and Fratkin (1997) the main nomadic groups in India are the Raikas in Rajasthan, the Gujjars in Gujarat and the Bakarwals in Jammu and Kashmir, these groups are largely transhumant or semi-sedentary pastoralists. According to Fratkin (1997), there are many migratory communities in this region one of them is goat and sheep herding community known as Bakarwals of Jammu and Kashmir; the other one is buffalo herding community known as Gujjars in Kashmir. Gujjars and Bakarwals are the pastoral nomads of Jammu and Kashmir. Their origin is much questionable. According to 1931 census of India, Gujjars are inhabited in eight provinces besides Delhi, Jammu and Kashmir, Punjab, North West provinces and other areas along the Himalayas.

The Gujjar and Bakarwals of Jammu and Kashmir -they are pastoral nomads who move in groups called 'Kafila'. Gujjars and Bakarwals constitute a significant proportion of the population of the state Jammu and Kashmir. They are nomadic in character, and nomadic pastoralists are those communities that rely on mobile livestock as a livelihood source (Carney 1999). Most of the pastoralists in the state lie in Jammu, Rajouri, Udhampur, Poonch, Uri, Ganderbal, Anantnag, Daksum and Kandi areas of Jammu and Kashmir State. The houses of Gujjars and Bakarwals are locally known as kothas and bandis. It is a mud-house against the slope of a hillock. The majority of the pastoralists are followers of Islam in the region except a few who have settled in Bimber, Mirpur and Rajouri. Gujjars and Bakarwals are well-known for their hard work and gentle nature. They are also known for their traditional tribal songs and the simple tribal pattern that they weave into their clothes. They have subsistence type of economy, and they try to produce everything they need in their daily life.

CONCLUSION

In most countries, nomadic pastoralism is on the decline, because of government interventions and a myriad of other factors restricting mobility (Kavoori, 1992). Pastoralists are very knowledgeable about livestock, their behaviour, feeding habits and production characteristics, and the methods used in the selection of breeding stock are comparable with those recommended by animal scientists (Rangnekar 1992). According to Nauman and Madariaga (2003) and Nori et al. (2005) pastoral community is one of the most politically and economically marginalised in many societies. This is the reason why the customary rangelands and transit routes are shrinking in the face of spreading cultivations, intensive cattle production, mining, oil extraction etc. Nomad people are threatened by climate change, lengthy droughts and desertification.

According to Beck (1980), Little (1985) and Rao (1995) the future of pastoralist populations is far from certain. While nomadic or mobile livestock herding has been a successful food production system in arid lands, the problems of population growth, competition for land with other pastoralists, farmers, commercial estates, game parks, and urban areas are increasingly preventing pastoral producers from traditional mobility and flexibility necessary to survive.

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COMPARATIVE ANALYSIS OF AGRICULTURE PRICE POLICY: WHEAT AND RICE SINCE THE EARLY 1980s

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ABSTRACT

Agriculture Price Policy could be seen as a part of a larger package of policies adopted by the government to promote overall agriculture growth through production incentives. As rice and wheat are two major cereal crops grown in India, many farmer's livelihood is dependent on the incomes of these two crops. Rice and wheat are grown in the area of nearly 75 million hectares or more than 40% of the gross sown area. So comparative analysis regarding Minimum Support Price will help us to understand how price policy works. The objective of the paper is to analyze costs, return and Minimum Support Price of wheat and rice, so to have an idea about the profitability of Indian agriculture. However, there has been a debate that since the cost of production of both wheat and paddy is almost the same; then rice should be given the same MSP as wheat. Recently Agricultural price policy has been criticized on the grounds of higher support price than the cost of production, leading to distortion in the market.

KEYWORDS
agriculture price policy cost of production, wheat, rice, minimum support price, indian agriculture.

1.1. INTRODUCTION

Agriculture Price Commission (APC) was set up in 1965 as a part of the larger package of Green Revolution to provide the incentive to adopt new high yielding seeds. The primary objective of APC was to give incentive to farmers, to ensure efficient utilization of resources and to study the possible impact of support price. APC was set up as an advisory body, where all decision-making powers were in hands of the government. APC was renamed in 1985 as Commission of Agriculture Cost and Price (CACP). Now Term of Reference was expanded to include a term of trade between agriculture and non-agriculture sector. Earlier APC did not cover any pricing principle based on costs or parity between sectors. After 1974, there has been representative of farmers working as the full-time member of the Commission. The aim of APC was to protect the interest of both consumer and producer. Agriculture price policy is an important instrument in achieving food security by providing incentives to farmers to enhance production thereby raising incomes of farmers.

One of the important instruments of agriculture price policy is support price/ procurement price. CACP recommends support price to the government to prevent farmer distress. It recommends incentive price to promote investment and growth in agriculture, procurement price at which government procures grains which involve an element of tax. It recommends issue price at which government distributes grains which involve an element of subsidy.

1.2 MINIMUM SUPPORT PRICE

Given large fluctuation of food-grains prices from year to year due to uncertain rainfall and low elasticity of demand, the notion of support price has acquired importance in this context. With an objective of providing incentives to farmers to adopt modern technology and better farm practices and with the aim to achieve self-reliance government announces Minimum Support Price (MSP). Minimum Support Price is that price at which governments binds itself to purchase all quantities offered by farmers. Farmers have a choice either to sell crops to the government when MSP is above market price or sell in the market when MSP falls below market price. Minimum Support Price is usually 'minimum' not 'maximum' price, so is seen as an indicative price. CACP recommends MSP in order to make agriculture as a remunerative sector and provide positive price policy to farmers. Currently, CACP recommends MSP for 24 commodities such as wheat, paddy, maize, bajra, sugarcane, pulses, oilseeds, cotton, etc. Such effective price policy has resulted in sustaining incomes of farmers and providing them an incentive to make the investment in agriculture sector. Government announces Support price well before the sowing season, so MSP indirectly affects the farmer's decision regarding land allocation of crops.

CACP recommends MSP to government on the basis of following determinants:

- Cost of Production
- Demand and Supply
- Term of trade between agriculture and non agriculture sector
- Trends in market prices, both domestic and international
- Inter crop price parity
- Likely implication of MSP on the rest of economy

Among these given determinants cost of production play important role in determining MSP.

Procurement operation is an important instrument in order to make MSP more effective. Important objective of procurement price is to provide positive price to farmer and to prevent distress sale. The FCI and other designated State Agencies undertake procurement of cereals, wheat and rice.

1.3. COMPARATIVE ANALYSIS OF WHEAT AND RICE

1.3.1 Cost of Production

The Cost of production is one of the critical factors used by CACP to arrive at MSPs, but it's not the only factor used to determine MSP. Minimum Support Price is usually seen as 'cost-plus-pricing' especially by farmer's organizations and stakeholders. CACP has made it very clear that MSP is not merely cost-plus pricing formula; it also takes into account demand consideration.

COC is the cost of cultivation on per hectare and COP is the cost of production per quintal, both are estimated by combining various cost items.

TABLE 1

Cost A1	*All actual expenditure incurred by owner in production including both in cash and kind*
Cost A2	*Cost A1 plus rent paid for leased in land*
Cost B1	*Cost A1 plus interest on value of owned capital assets (excluding land)*
Cost B2	*Cost B1 + rental value of owned land (net of land revenue) and rent paid for leased-in-land*
Cost C1	*Cost B1+ imputed value of family labour*
Cost C2	*Cost B2 +imputed value of family labour*

Source: CACP

In this section trend in C2 cost of production per quintal for both paddy and wheat from 1981-82 to 2011-12 is examined. As evident from the graph that C2 cost of production of both paddy and wheat is more or less is same for the entire period, expect from 2008 where C2 cost of production of paddy is somewhat higher than wheat.

GRAPH 1: TREND IN C2 COP OF PADDY AND WHEAT
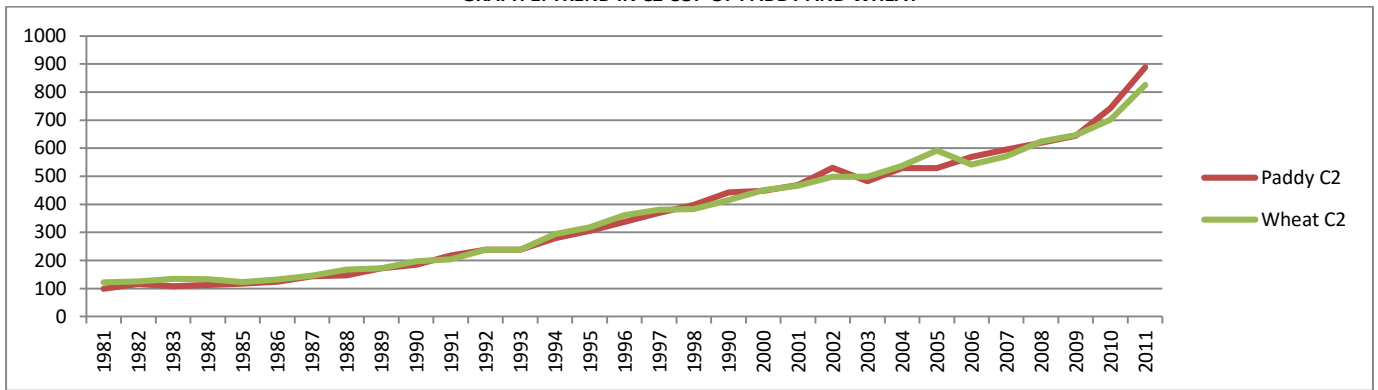
Source: DSE, Ministry of Agriculture

1.3.2 Trend in Minimum Support Price

Despite the fact that C2 cost of production of both paddy and wheat is comparable over the entire period there is difference in changes in MSP of these two crops. Examining the trend in MSP of wheat and rice shows that since 1990's MSP of wheat has been continuously higher than MSP of paddy moreover the gap between two MSP has been increasing also.
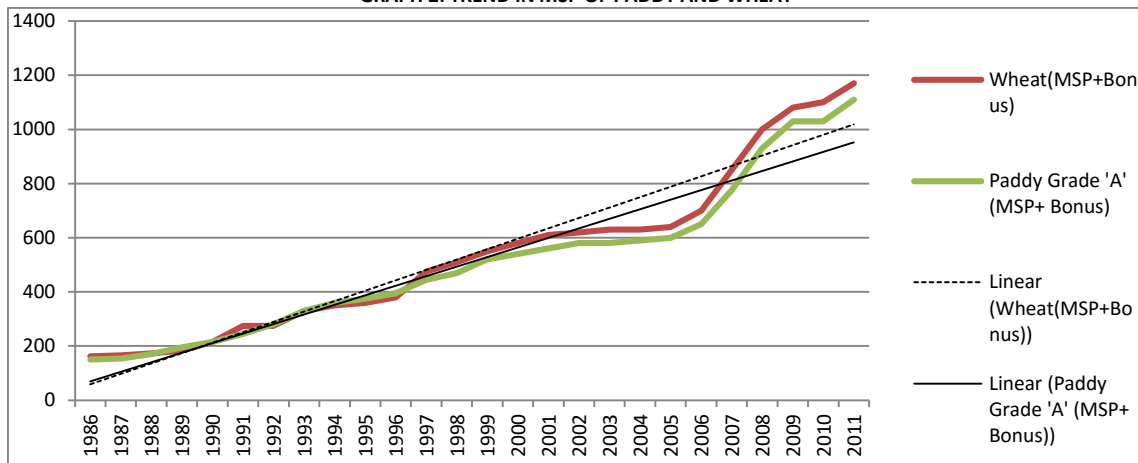
GRAPH 2: TREND IN MSP OF PADDY AND WHEAT

Source: DSE, Ministry of Agriculture

During the period 1990-91 to 2000-01, the increase in MSP of rice was 0.99 percentage points whereas for wheat it was 2.23 percentage points. Similarly, for the period 2000-10 to 2009-10, the MSP for rice increased more by 1.81 percentage points but in the case of wheat, there was a decline of 1.30 percentage points. MSP in rice has increased sharply in recent years because of the sharp rise in input costs, land rental, and capital cost. Therefore, a minimum margin of 5.5% over C2 and 47% over A2+FL cost is recommended for the year 2012-13. In the case of paddy cost of production has risen by 53% since 2008-09 but farmers are not duly compensated for these rising cost, therefore for 2012-13 CACP has recommended 16% increases in MSP but even this % of the increase in MSP is not able to adequately compensate for the sharp increase in cost.

TABLE 2: TREND GROWTH RATES (%PER YEAR) IN MSP FOR RICE AND WHEAT IN REAL TERMS

Period	Rice	Wheat
1981-82 to 1990-91	-0.95	-2.22
1990-91 to 2000-01	0.99	2.23
2000-01 to 2009-10	1.81	1.30

Source: Calculated from CACP reports

Comptroller and Auditor General Report (CAG) in its Report No.7 of 2013 showed that the margin of Minimum Support Price (MSP) fixed over the cost of production varied over from 14% to 60% in case of rice while 29% to 66% in wheat from the period 2006-07 to 2011-12. % of margin over C2 cost is always higher in wheat as compared to rice. Therefore, CAG in its report stated that there is the need for greater transparency in the method of arriving at MSP.

TABLE 3

| Year	C2 Cost		MSP Fixed		% Margin Over C2	
	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat
2006-07	569	542	650	700	14	29
2007-08	595	574	775	850	30	48
2008-09	619	624	930	1000	50	60
2009-10	645	649	1030	1080	60	66
2010-11	742	701	1030	1100	39	57
2011-12	888	826	1110	1170	25	42

Source: CAG, Report No.7 of 2013 (tables 2.2 & 2.3)

1.3.3 Comparing Minimum Support Price with COP

To have an idea whether the price policy has been successful in providing a margin over total cost for both wheat and paddy farmer, MSP of both crops has been compared with its respective C2 cost of production.
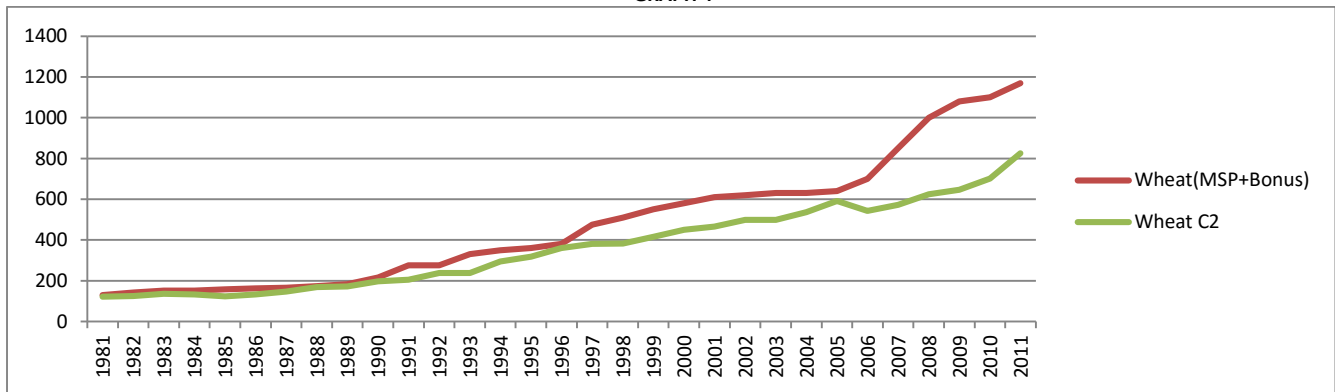
GRAPH 3: COMPARING PADDY MSP WITH ITS C2 COP
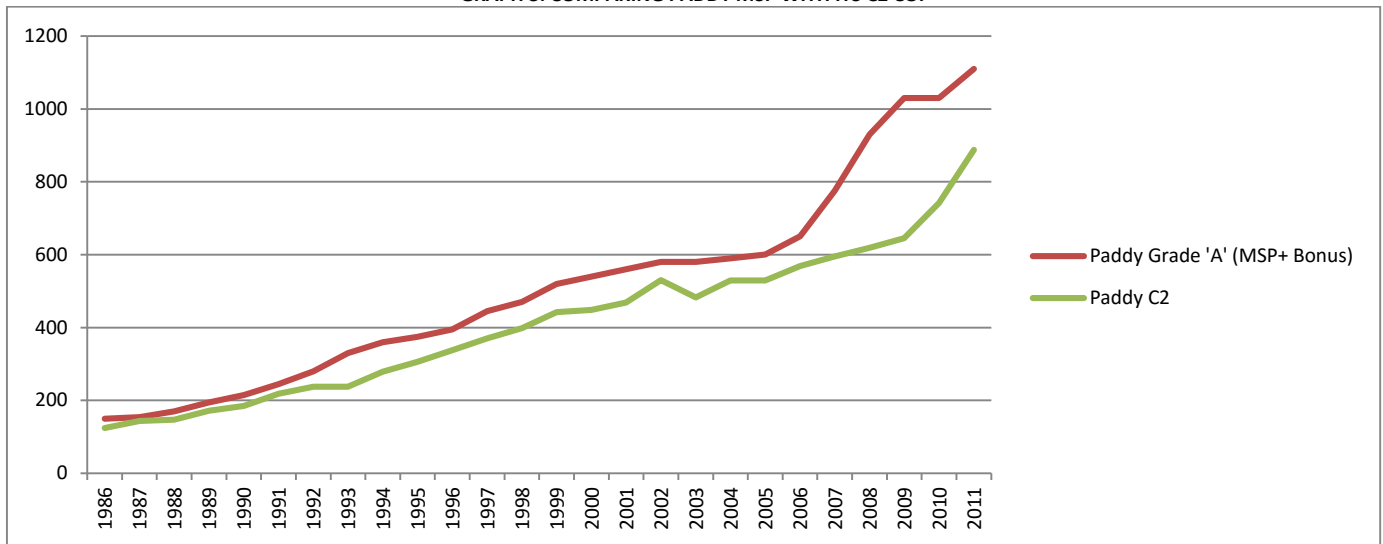
Source: DSE, Ministry of Agriculture

GRAPH 4

Source: DSE, Ministry of Agriculture

It is evident from above graph that MSP of both paddy and wheat is always higher than its respective C2 cost since 1981, providing enough margins to both these farmer.

1.3.4. Production and Procurement of Rice and Wheat

In this section production and procurement of wheat and rice has been compared to the period of 2001-02 to 2011-12. Over the entire period production and procurement of rice has always been higher than wheat. Even procurement as % of production by the government is higher in the case of rice than wheat.

TABLE 4: PRODUCTION AND PROCUREMENT OF RICE AND WHEAT (in lakh tons)

Crop Year	Rice			Wheat		
	Production	Procurement (Kharif Marketing Season)	Proc. as % of Production	Production	Procurement (Rabi Marketing Season)	Proc. as % of Production
2001-02	933.40	221.28	23.71	727.70	190.54	26.18
2002-03	718.20	164.22	22.87	657.60	158.01	24.03
2003-04	885.26	228.28	25.79	721.50	167.95	23.28
2004-05	831.31	246.85	29.69	686.40	147.87	21.54
2005-06	917.93	276.56	30.13	693.50	92.26	13.30
2006-07	933.55	251.07	26.89	758.10	111.28	14.68
2007-08	966.93	287.36	29.72	785.70	226.89	28.88
2008-09	991.80	341.04	34.39	806.80	253.82	31.46
2009-10	890.90	320.34	35.96	808.00	225.14	27.86
2010-11	959.80	342.00	35.63	868.70	283.35	32.62
2011-12	1043.22	350.22*	33.48	939.03	381.48	40.62
2012-13	855.9$	5.85 #	-	-	-	-

Source: CACP

1.4. REGRESSION OF MSP ON COST OF PRODUCTION

Running regression of MSP on COP, will give us an idea about the importance of cost of production as determinant of MSP.

Regress Paddy MSP on C2 paddy-

----

paddygrade~s | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+--

paddyc2 | 1.391578 .0743308 18.72 0.000 1.237813 1.545343
_cons | -56.34511 31.81774 -1.77 0.090 -122.1651 9.47491

R-square-value-0.94

Regress wheat msp on wheat C2-

----

wheatmsp | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+--

wheatc2 | 1.557458 .0894785 17.41 0.000 1.372358 1.742559
_cons | -95.20626 38.16464 -2.49 0.020 -174.1558 -16.2567

R-square value-0.93

The Regressions run on MSP as the dependent variable and COP as the independent variable for both paddy and wheat shows better results. Both the model are coming out to be significant at 1% level with R- square value of 93%, which means for both paddy and wheat, C2 COP can alone explain 93% variation in MSP. Therefore, from above results, we can say that COP is a one of the most important determinant of MSP, but it is not the only determinant, and MSP depend on upon various other factors also.

1.5. PROBLEMS RELATED TO COP USED AS BASIS FOR MSP

Since the cost of production is one of the most important determinants of MSP there are some problems related to it. This is valid in the case where there is a shortage of supply, and the main aim is to increase it. But in the case of excess supply and demand being short of it, then demand side factor should be given primacy. However, when COP is used as an essential basis for MSP farmers will not bother if the particular land is unsuitable for the production, resulting in inefficiency for example in the case of rice, cultivation has expanded to semi-arid and sandy soils region like Haryana, Punjab creating lot many environmental and natural resource problems. Another problem is this totally neglects' society preference. There is an imbalance between what is being produced and what is demanded as in the case of rice and wheat.

1.5.1 Efficacy of Price Policy

Despite the huge procurement operation set up by the government, farmers are unable to get MSP due to which they are forced to sell their crop at distress. Coverage of procurement operation for the crop like paddy is not adequate as well as effective. However, for another crop situation is even worse. Regions with poor infrastructure are usually excluded from MSP operation by Central agencies. Therefore, there is need to expand procurement operation network, especially to poor infrastructure areas. Similarly, for wheat procurement except for the states like Punjab, Haryana procurement operation is inadequate. FCI, which is the central agency, has its own limitation in expanding further. Because of inefficient procurement operation in various states like U.P, Bihar, Gujarat farmers had to suffer when market price fall below MSP.

1.6. CONCLUSION

Since the cost of production is one of the important determinants of MSP but how another factor come into play in determining MSP is not clear and not even spelled out by CACP. Therefore, there is a need for greater transparency in arriving at MSP. There is no proper weight provided to determinants of MSP, which is leading to the problem of subjectivity. Since COP is one of the most important determinants of MSP, there is a limitation in the cost concept used by CACP in determining MSP. CACP uses weighted average COP. However, % of production covered under weighted average C2 cost varies a great deal from crop to crop with paddy at 62% and wheat at 70% in the year 2011-12. Therefore, appropriates of weighted average cost has been questioned. Alternative to this weighted average cost can be bulk line cost. Another issue with cost concept is that cost is hugely underestimated partly because of the time lag in cost data when it is collected and when it is made available to the commission. However, agriculture price policy is successful in providing a reasonable margin of around 20% to both paddy and wheat. Despite having the same cost of production of both paddy and wheat since mid 90's, wheat MSP is 14% higher than paddy MSP since then till 2007 (Vishandass, 2013). Therefore, we can argue that there is some merit in the argument that MSP of paddy should be slightly below or close to MSP of wheat, and recent hikes in MSP of paddy is justified on this ground (Vishandass, 2013).

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INNOVATION SYSTEMS FOR FAMILY FARMING: A STUDY ON ECONOMIC ANALYSIS OF ORGANIC FARMING IN SHIVAMOGGA TALUK

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ABSTRACT

Innovation happens when individuals and groups adopt new ideas, technologies or processes that, when successful, spread through communities and societies. More than 500 million family farms manage the majority of the world's agricultural land and produce most of the world's food. We need family farms to ensure global food security, to care for and protect the natural environment and to end poverty, undernourishment and malnutrition. Traditional farming (of many kinds) was the original type of agriculture, and has been practiced for thousands of years. Forest gardening, a traditional food production system that dates from prehistoric times is thought to be the world's oldest and most resilient agro ecosystem. Organic farming is a form of agriculture that relies on techniques such as crop rotation, green manure, compost, and biological pest control. Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony. This study is very essential based on the study area, so I have frame some objective like to ascertain the reasons for shifting from inorganic to organic cultivation, to study the type, pattern and levels of use of manures, fertilizers and plant protection measures and the cost involved under both the type of farming, to compare the yield, market prices and returns of organic products with that of inorganic products, to enumerate the problems of organic product growers. Based on this objective I framed some hypotheses like the costs involved in organic farming are less compared to that of inorganic farming, net returns from organic products are higher than that of inorganic products.

KEYWORDS
innovation systems, family farming, developing capacity, organic farming.

INTRODUCTION

Green revolution has brought spectacular increase in production as well as productivity of crops in our country. But after the initial success, it had shown the undesirable effects on natural resources; such as soil, water, biodiversity and human health. The soil fertility was degraded due to soil erosion and water resources have been over exploited and polluted due to excessive requirement of irrigation water for high yielding varieties and intensive use of agro-chemicals. Many flora and fauna are wiped out are in endangered status. Residues of harmful pesticides in food and drinking water pose a serious threat to consumer's health.

In present day farming, the cost of cultivation has disproportionally has disproportionally increased as compared to the revenue generation. The increase in usage of external inputs in agriculture to meet the emerging requirement could be the reason for the above phenomenon. At present the issue is whether to continue with the chemical based intensive technologies or to go back to the traditional environment friendly-economic development of the farming community. So the problems have made us to think of some other alternative methods of increasing food production. In this context, organic farming has drawn the attention of agricultural scientists, farmers and policy makers' worldwide.

Thus in developing countries the twin challenges are the production of sufficient food for the growing population from available land and prevention of environmental degradation. Meeting of one challenge certainly gives birth to other challenge. Hence to face these two challenges certainly gives birth to other practice is adopted that is "organic farming".

Organic farming is a production system which avoids or largely excludes the use of chemical fertilizers, growth, regulators and livestock feed additives to the maximum extent possible and which also promotes and enhances the agro ecosystem health which includes biodiversity, biological cycles and biological activities. Organic farming relies mainly on crop residues, animal manures, legumes, green manures, wastes and biological pest control which aims at producing high quality nutritional food with sustainable high yield.

Organic farming is practiced in India since thousands of years. The great Indian civilization thrived on organic farming and one of the most prosperous countries in the world, till the British rules it. In traditional India, the entire agriculture was practiced using organic techniques, where the fertilizers, pesticides etc. were obtained from plant and animal products. Organic farming was the backbone of the Indian economy and cow was worshipped as a God.

The first use of the term organic farming is usually credited to Lord Northbourne, in his book, 'Look to the Land' (1940), wherein he described a holistic, ecologically balanced approach to farming.

The British botanist, Sir Albert Howard often called as "The Father of Modern Organic Agriculture" studied traditional farming practices in Bengal, India. He regarded such practices as superior as superior to modern agricultural sciences and recorded them in his book, 'An Agricultural Testament' (1940).

In 1972, the International Federation of organic agriculture Movements (IFOAM) was founded in Versailis, France. IFOAM was dedicated to the diffusion of information on the principles and practices of organic farming across national and linguistic boundaries.

According to the International fund for agriculture development (IFAD), organic production in India has been growing steadily. About 2.5 million hectares of land is under organic farming in India. The Research Institution of organic agriculture reports a total 15,000 organic farm were operating in the country in 2004.

The agricultural and processed food products exports development authority (APEDA) estimated 200000 hectares of certified organic land, mainly cultivated by small holder producers. Recently, an increasing number of companies, NGO's, farmers' organizations and Government agencies have been promoting organic agriculture in India.

PRINCIPLES OF ORGANIC FARMING
Organic farming is based on the following principles:
1.   To produce food of high quality in sufficient quantity.
2.   To encourage and enhance biological cycles within the farming system involving micro organisms, soil flora, plants and animals.
3.   To maintain and increase the long term fertility of soils.
4.   To create a harmonious balance between crop production and animal husbandry.
5.   To produce fully bio-degradation organic products.
6.   To minimize all forms of pollution.
7.   To promote the healthy use proper care of water, water resource and all lives therein.

INNOVATION SYSTEMS FOR FAMILY FARMING

Innovation happens when individuals and groups adopt new ideas, technologies or processes that, when successful, spread through communities and societies. The process is complex, involving many actors, and it cannot function in a vacuum. It is furthered by the presence of an effective *innovation system*. Among other things, an agricultural innovation system includes the general enabling economic and institutional environment required by all farmers. Other key components are research and advisory services and effective agricultural producers' organizations. Innovation often builds on and adjusts local knowledge and traditional systems in combination with new sources of knowledge from formal research systems.

One fundamental driver for all innovators – including family farmers – is access to markets that reward their enterprise. Farmers with access to markets, including local markets, for their produce – whether it be food staples or cash crops – have a strong incentive to innovate. Technologies help farmers to enter the market by allowing them to produce marketable surpluses. Innovation and markets depend on, and reinforce, each other. However, investments in physical and institutional market infrastructure are essential to allow farmers to access markets both for their produce and for inputs. Efficient producers' organizations and cooperatives can also play a key role in helping farmers link to input and output markets.

Because family farms are so diverse in terms of size, access to markets and other characteristics, general policy prescriptions are unlikely to meet the needs of all of them. Public support for innovation should take into consideration the specific structure of family farming in each country and setting, as well as the policy objectives for the sector.

Some family farmers manage large commercial enterprises and require little from the public sector beyond agricultural research to ensure long-term production potential and the enabling environment and infrastructure that all farmers need to be productive, although they may require regulation, support and incentives to become more sustainable. Other, very small, family farms engage in markets primarily as net food buyers. They produce food as an essential part of their survival strategy, but they often face unfavorable policy environments and have inadequate means to make farming a commercially viable enterprise. Many such farmers supplement both income and nutrition from other parts of the landscape, through forests, pastures and fisheries and from off-farm employment. For these farmers, diversification and risk spreading through these and other livelihood strategies will be necessary. While agriculture and agricultural innovation can improve livelihoods, they are unlikely to be the primary means of lifting this group of farmers out of poverty. Helping such farmers escape poverty will require broad-based efforts, including overall rural development policies and effective social protection. In between these two extremes are the millions of small and medium-sized family farms that have the potential to become economically viable and environmentally sustainable enterprises. Many of these farms are not well integrated into effective innovation systems and lack the capacity or incentives to innovate.

Public efforts to promote innovation in agriculture for family farms must focus on providing inclusive research, advisory services, market institutions and infrastructure that the private sector is typically unable to provide. For example, applied agricultural research for crops, livestock species and management practices of importance to smallholders are public goods and should be a priority. A supportive environment for producer organizations and other community-based organizations can also help promote innovation among family farms.

DEVELOPING CAPACITY FOR INNOVATION IN FAMILY FARMING

Innovation presupposes a capacity to innovate at the individual, collective, national and international levels. The skills and capacities of individuals involved in all aspects of the agricultural innovation system – farmers, extension service providers, researchers, etc. – must be upgraded through education and training at all levels. Special attention needs to be given to women and girls based on their needs and roles in agriculture and rural livelihood strategies. A further focus must also be on youth in general, who tend to have a greater inclination to innovate than elder farmers and represent the future of agriculture. If youth perceive agriculture as a potential profession with scope for innovation, this can have major positive implications for the prospects for the sector.

Collective innovation capacity depends on effective networks and partnerships among the individuals and groups within the system. Producers' organizations and cooperatives are of particular importance. Strong, effective and inclusive organizations can facilitate the access of family farms to markets for inputs and outputs, to technologies and to financial services such as credit. They can serve as a vehicle for closer cooperation with national research institutes; provide extension and advisory services to their members; act as intermediaries between individual family farms and different information providers; and help small farmers gain a voice in policymaking to counter the often prevailing influence of larger, more powerful interests. Furthermore, family farmers who depend on other resources, such as forests, pastures and fisheries can benefit by linking with producer organizations within these sectors. Linking producer organizations across these sectors can further strengthen the case for clear tenure rights and better coordination between policies and service providers.

At national and international levels, the right environment and incentives for innovation are created by good governance and sound economic policies, secure property rights, market and other infrastructure, and a conducive regulatory framework. Governments must support the development of effective and representative producers' organizations and ensure that they participate in policy-making processes.

SPECIFIC OBJECTIVES OF THE STUDY

With the about principles and need for the study, the following objectives are framed to investigate:
1. To ascertain the reasons for shifting from inorganic to organic cultivation.
2. To study the type, pattern and levels of use of manures, fertilizers and plant protection measures and the cost involved under both the type of farming.
3. To compare the yield, market prices and returns of organic products with that of inorganic products.
4. To enumerate the problems of organic product growers.

THE HYPOTHESES OUTLINE FOR THE STUDY

1. The costs involved in organic farming are less compared to that of inorganic farming.
2. Net returns from organic products are higher than that of inorganic products.

METHODOLOGY

Primary Data and Secondary Data are collected for the purpose of study about the advantages and disadvantages of organic and inorganic farming. Primary data is collected through field survey, where direct interaction was held with both organic farming and inorganic farmers. Secondary data was collected from articles, reports, journals, bulletins and so on through internet.

LIMITATION OF THE STUDY

Due to the limitation of the time and other resource, the present investigation is being restricted to a village in Shivamogga district. The sample size is limited to 20 only taking few variables for the purpose of studying the above objectives. Hence, the findings have to be viewed in the specific context of the conditions prevailing in the study area and cannot be generalized for wider geographical area. However, careful and rigorous procedures have been adopted in carrying out the research as objectively as possible. In spite of the individual bias made by the respondent farmers in eliciting the necessary responses, it is believed that the findings and conclusions drawn in the present study would form the basis for future research study.

PRESENT STATUS OF ORGANIC FARMING

PRESENT STATUS OF ORGANIC FARMING IN WORLD

The present area under organic cultivation in world is estimated about 35.24 million hectares spread in almost 154 countries. Australia stands first with highest area of more than 12 million hectares, where India's area is very less (1.020 million hectares) compared to other top countries. Oceania (Australian) region dominates with 37percent of the total organic area in the world, in which Asian region stands fourth with only 9 percent area. Africa region dominates with highest number of organic producers contributing 43 percent of the total organic producers worldwide followed by Asian region with 18 percent.

TABLE 1: AREA OF MAJOR COUNTRIES UNDER ORGANIC MANAGEMENT

Sl. No.	Name of the countries	Area under organic Management				2008 percentage
		2005	2006	2007	2008	
1	Australia	11.766	12.345	12.023	12.02	44.70
2	Argentina	2.682	2.358	2.778	4.00	14.88
3	China	2.300	2.300	1.553	1.85	6.88
4	USA	1.640	1.640	1.640	1.82	6.77
5	Italy	1.067	1.148	1.150	1.00	3.72
6	Brazil	0.842	0.882	1.765	1.77	6.58
7	Germany	0.807	0.825	0.865	0.91	3.38
8	Spain	0.807	0.926	0.988	1.13	4.20
9	UK	0.619	0.605	0.660	0.74	2.75
10	Canada	0.578	0.604	0.556	0.63	2.34
11	India	0.186	0.432	1.030	1.02	3.79
12	World Total	23.294	24.065	25.008	26.89	100.00

Source: FiBL, IFOAM and SOEL

PRESENT STATUS OF ORGANIC FARMING IN INDIA

According to National Program of Organic Products the total Organic area under certification in India was estimated to be 2.8 million hectares in which only 1.20 million hectares' area under certified organic cultivation with the total production of 18,11,111 million tones. In this total production, 44476.23 million tones of different organic products have been exported from India during 2008-09 which earned Rs. 580 crores. The share of organic exports to total production works out to be only 4 percent but it recorded 30 percent growth when compared to previous year.

MAJOR ORGANIC PRODUCT PRODUCED IN INDIA

TABLE 2

| Type	Products
Cereals	Rice, Wheat
Beverages	Tea, Coffee
Spices	Cardamom, black pepper, Ginger, turmeric, vanilla, mustard, tamarind, mace, chilly.
Pulses	Red gram, Black gram.
Fruits	Mango, Banana, pineapple, passion, orange, cashew nut, walnut.
Vegetables	Okra, Brinjal, garlic, onion, tomato, potato.
Oilseeds	Sesame, castor, sunflower.
Others	Cotton, herbal, extract.

Source: Organic Farming News letter

TABLE 3: PERCENT SHARE OF DIFFERENT ORGANIC PRODUCTS IN INDIA

Product	Percent
Rice	24
Tea	24
Fruits and Vegetables	17
Wheat	10
Cotton	08
Spices	05
Coffee	04
Pulses	03
Cashew	03
Others	02
Total	100

Source: Organic Farming news letter

FIG. 1
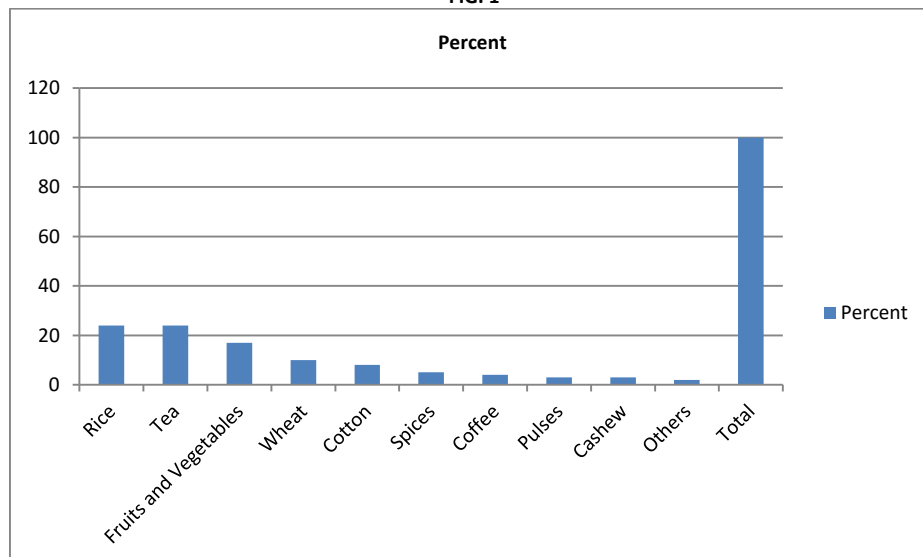
RESULT AND DISCUSSION

TABLE 4: AGE WISE DISTRIBUTION OF ORGANIC FARMING

Age	No. of Respondents	Percent
30-40	05	25
40-50	08	40
50-60	04	20
60-70	03	15
Total	20	100
Source: Field Survey		

**FIG. 2**

No. of Respondents
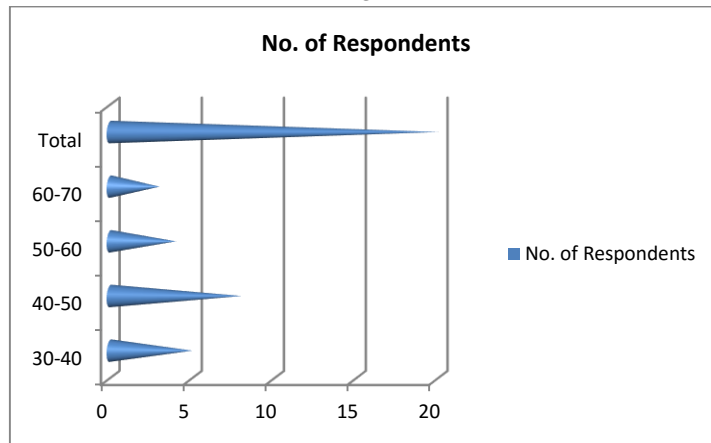
Organic Farming which is becoming more population now-a-days requires more awareness among the young age group. This is shown in the above table. In the study area 40 percent of organic farmers are in the group of 40-50 years. The old aged group is about 15 percent. 25 percent of the organic farming is between 30-40 years. Therefore, it can be concluded that about 65 percent of organic farming are below 50 years. From this it can be concluded that working aged farmers are more engaged in organic farming.

TABLE 5: OCCUPATION-WISE DISTRIBUTION OF ORGANIC FARMERS

Occupation	No. of Respondents	Percent
Agriculture	15	75
Business	04	20
Others	01	05
Total	20	100

Source: Field Survey

FIG. 3
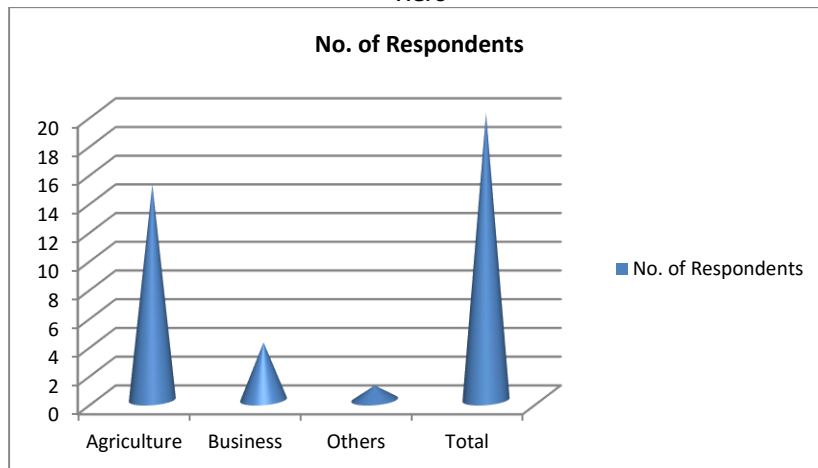
No. of Respondents

In the study area out of 20 respondents 75 percent of them are engaged in agriculture sector. In other words, 75 percent of the respondents have taken agriculture as their primary occupation. Like that 20 percent of them are business people who have taken organic farming as their secondary occupations. Hence it can be concluded that those who have adopted organic farming have chosen agriculture as their primary occupation.

TABLE 6: LAND HOLDING OF ORGANIC FARMING

Area in Acres	No. of Respondents	Percent
Below 05	06	30
05-10	07	35
10-15	02	10
15-20	02	15
Above 20	03	15
Total	20	100

Source: Filed Survey

FIG. 4
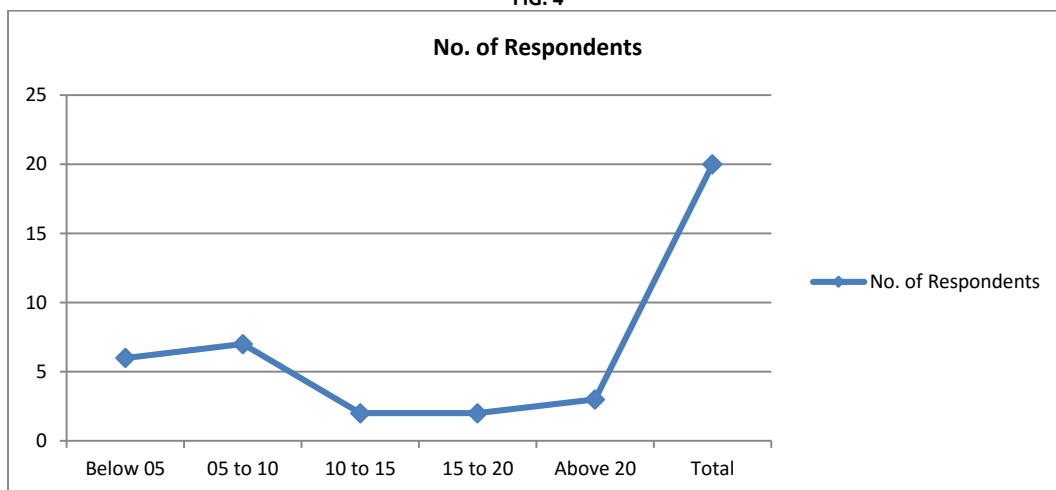
Farmers are broadly classified as small, medium and large farmers depending upon the size of land they hold. Accordingly, in the study area farmers owning land within 5 acres are about 30 percent, those owning land in between 5 to 10 acres are 35 percent, farmers having land between 10 to 15 and 15 to 20 acres are 10 percent each and 15 percent of them have land above 20 acres. By this it is clearly understood that in the study area all types of farmers are fund. But still farmers above 10 acres are 35 percent that is large farmers. Like that medium farmers are 35percet and small farmers are above 30 percent.
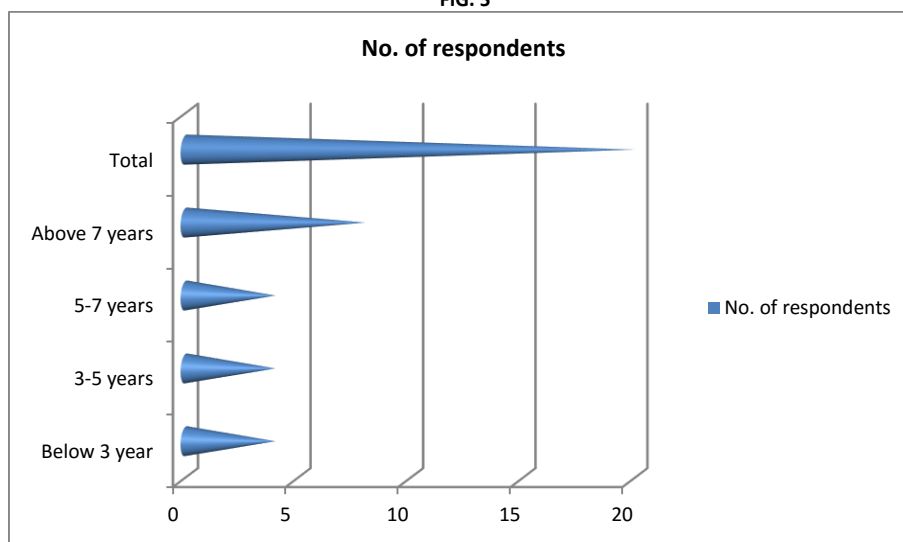
TABLE 7: ORGANIC FARMERS EXPERIENCE IN ORGANIC FARMING

Experience	No. of respondents	Percent
Below 3 year	04	20
3-5 years	04	20
5-7 years	04	20
Above 7 years	08	40
Total	20	100

Source: Field survey

FIG. 5

With regard the experience of the farmers in practicing organic farming, in the study area 20 percent of the farmers had experience of below 03 years. That means they have started adopting organic type of farming recently or very shortly. Like that 20 percent of the farmers in the farmers in the study area are following organic farming from 3 to 5 years. Against 20 percent of the farmers have experience of organic farming for more than five years but less than seven years. However, as the proof that organic farming is getting popular day by day, there are more numbers who are practicing organic farming for more than seven years. This data in the above table shows that year after year organic farming is getting more popular.

TABLE 8: AWARENESS ABOUT ORGANIC FARMING BY THE RESPONDENTS

Awareness	No. of Respondents	Percent
Another organic farmer	02	10
Extension agent	09	45
Neighbor	02	10
Friends	03	15
Media	04	20
Total	20	100

Source: Field Survey

With regard to the awareness of the farmers who had adopted organic farming, 45percent of the farmers came to know about organic farming from extension agents who are government officials. Another 10 percent each came to know from other organic farmers and neighbor. 15 percent of them from friends and the remaining 20 percent of them came to know about organic farming from media. From this is can be concluded that extension agents from government and media plays a major role in popularizing organic farming.
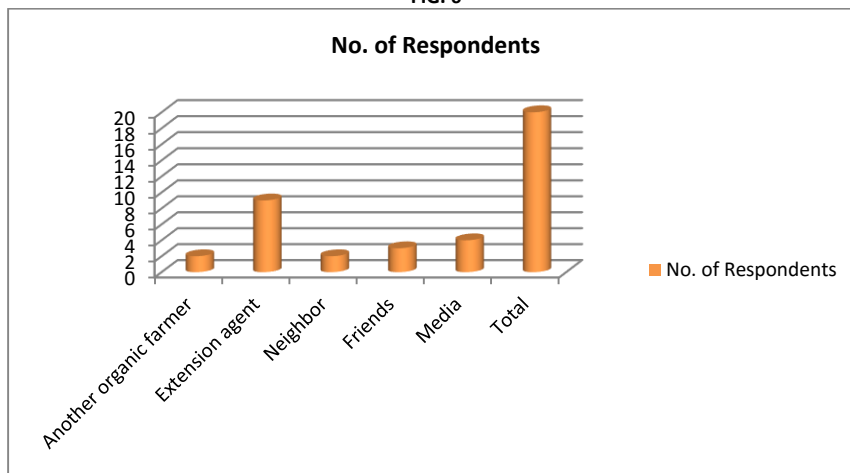
FIG. 6

TABLE 9: REASON FOR TAKING UP ORGANIC FARMING

Reasons	No. of Respondents	Percent
Healthy product, less cost and high returns	04	20
Health product, long life of land and eco friendly	04	20
Eco friendly prevention of soil fertility and quality yield.	05	25
All the above	07	35
Total	20	100

Source: Field Survey

Any individual should have some reason to take up anything or do anything. Like that the farmers to adopt organic farming should have some reasons. Some of the reason why farmers were inspire to take up organic farming are like healthy product that organic produces, less cost, high returns, eco friendly, prevention of soil fertility and so on. In the study area 20 percent of the farmers were inspired by healthy product, less cost and high returns to take up organic farming. Another 20 percent were inspired by elements of healthy product, long life of land and eco friendly to take up organic farming. Again 25 percent of farmers were inspire by eco friendly, prevention of soil fertility yield and 35 percent of organic farmers were inspire by all the above mentioned factors to adopt organic farming.

TABLE 10: ORGANIC PRACTICES ADOPTED BY ORGANIC FARMERS

Practices	No. of Respondents	Percent
Mulching and bio-fertilizer usage	03	15
Bio-Fertilizer usage and green manure	04	20
Wastage recycle (Green manure) and micro nutrients usage.	03	15
All	10	50
Total	20	100

Source: Field Survey

In adoption organic farming, farmers have to follow some measures in practicing organic farming like mulching, using bio-fertilizer, wastage recycle, usage of micro nutrients and so on. In the study area, 15 percent of organic farmers followed mulching and using bio-fertilizers in organic farming, 20 percent of farmers practiced usage of bio-fertilizers and usage of green manure. 15 percent used wastage recycle manure or green manure and micro nutrients will help in maintaining the fertility of soil and 50 percent practiced all the method available in practicing organic farming.

TABLE 11: REASON FOR COST MINIMIZATION IN ORGANIC FARMING BY ORGANIC FARMERS

Cost Minimization	No. of Respondents	Percentage
Less Fertilizers and pesticide usage	03	15
Less machinery and labour usage	02	10
All the above	15	75
Total	20	100

Source: Field Survey

Organic farming was population due to its cost maximization, high returns, healthy products, etc. At the same time farmers were also inspire with these features as the result of which they adopted organic farming. 15 percent of the organic farmers in the study area were inspired by less fertilizer and pesticide usage and adopted organic farming. 10percent were inspired by less machinery and labour usage in adopting organic farming. The remaining 75 percent that is major percent were motivated by all the mentioned factors for which they found organic farming as more preferable and profitable than inorganic farming and adopted organic farming.

TABLE 12: CONSTRAINTS IN PRACTICING ORGANIC FARMING

Res No.	Lack of Compose Manure	Lack of domestic animal	Local Market not accessible	Price	Lack of awareness	Labour	Gradual increase in yield	Initial risk in conversion	Initial financial assistance	Lack of transportation
1	1	1	1	1	1					1
2	1	1			1	1				
3							1	1		1
4		1	1	1	1				1	
5	1			1				1	1	
6	1		1		1	1	1			
7		1	1					1		1
8	1	1					1			
9	1	1	1	1	1				1	
10	1		1			1		1		1
11	1	1		1	1		1		1	
12			1							
13	1	1	1		1		1	1	1	1
14						1				
15	1			1						1
16		1			1			1	1	
17			1					1		1
18	1							1		
19		1			1	1				
20	1		1	1				1	1	

Source: Field Survey

In practicing organic farming, in the study area respondents faced various constraints or problems. Some of the most important constraint are the lack of compose manure which is very essential for organic farming, lack of domestic animals which are the source to produce compose manure, accessibility of local market which will reduce the problem of transportation, low price fixation for organic products. Like that there is lack of awareness about the organic farming in farmers. Also there is the risk of initial conversion. This is because while converting farming practice from inorganic to organic the expenditure will be more when compared to the income and the total yield will also be less when compared to inorganic farming. For instance, for the first five years of conversion, in the first year yield will be very less may be not even half the yield of inorganic farming. But the yield will increase year by year. After full conversion of inorganic farming into organic farming the expenditure incurred will be very low when compared to inorganic farming and the income generated will increase year by year. Thus the farmers have to take the risk of conversion which will initially reduce their yield and income. At one stage there will be zero income that is no profit and no loss. But after this point the income starts increasing from year by year. Finally, organic farmers will be able to earn more income from less expenditure.

FINDINGS

With regarding to irrigation facility, in study area still 30 of the land rely upon rain for water required to carry out farming. This percent is to be reduced by initiating farmers to take up rain harvesting, or to have their own tanks, bore wells and so on. The finance required is to be provided by the government at low interest or at interest less if possible.

It is found farmers in the study area own very little machinery and other implements required for agricultural activities, from this point of view farmers should be provided with necessary implements at subsidized rates. In fact, government is doing it, but it should be done in larger scale so that more number of farmers gets its benefits.

It seems from the survey that very little farmers subscribe to the magazines related to farmers. This percentage is to be increased by bring more educated populations into organic farming.

Through organic farmer are aware about the features of organic products and advantages of organic farming its percent is very low. By more programs on organic farming this percent is to be increased.

CONCLUSION

More than 500 million family farms manage the majority of the world's agricultural land and produce most of the world's food. We need family farms to ensure global food security, to care for and protect the natural environment and to end poverty, undernourishment and malnutrition. These goals can be thoroughly achieved if public policies support family farms to become more productive and sustainable; in other words, policies must support family farms to innovate within a system that recognizes their diversity and the complexity of the challenges faced. The challenges of designing an innovation system for the twenty-first century are more complex than those faced at the time of the Green Revolution. The institutional framework is different due to a declining role of the public sector in agricultural innovation and the entry of new actors, such as private research companies and advisory services, as well as civil society organizations. At the same time, farmers have to address globalization, increasingly complex value chains, pressures on natural resources, and climate change.

The organic farming method was found to be more superior than inorganic farming method on account the of lower cost of cultivation, higher profits, better input use efficiency and reduced risk lending to increased income, enhanced self-reliance and livelihood security of the farmers. Moreover, organic farming methods have the positive impact on soil conservation and water use efficiency demonstrating substantial potential for sustenance of soil and water resources. It also safeguards and improves the health of soil and water resources there by helps in achieving sustainable income.

There is a growing global demand for organic farming products. At present organic farming and supply of organic products along with its demand is very negligible. Shimogga district has comparative advantage in producing of organic products as organic farming is practiced by default in most of the rain fed areas. If reduction in the cost of organic farming is achieved by creating awareness in the organic farming's about the practiced are to be adopted in organic farming, policy measure like giving incentive in the form of subsidies and tax concession for production and distribution of organic farming inputs, encouragement for manufacturing bio fertilizers and bio-pesticides, conducting awareness and training programs, imparting knowledge in standards of organic production, establishing more net work of training and information centers and so on will definitely make organic farming more poplar which will not only empower the farmers but also provide the population with healthy and hygienic products which are very much needed in the present situation. For this there is a need of trained agricultural graduates, so government should appoint agriculture technical officers is block level or in every Gram Panchayat.

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MACROECONOMIC IMPACT OF CRUDE OIL PRICES ON INDIAN ECONOMY

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ABSTRACT

Energy is the backbone for the development of any Economy. Due to rising economic growth and development in India, the demand and desire of the people have multiplied for the different sources of energy like petrol, diesel, gas, kerosene, etc. which has bound the Indian Economy to import more than one-third of its total consumption. Rising demand for the petroleum products lead the Indian economy to face twin issues of mounting trade imbalance and persisting inflation. The prices of oil and inflation are often seen as being connected in a cause and effect relationship. As oil prices moves up or down, inflation follow in the same direction. The increasing oil prices lead to economic slowdown and credit availability which are great threats to the country's economy. Rising oil prices also affect the cost of production. Whenever the price of crude oil tends to rise, the cost of production also rises causing a decrease in supply which ultimately leads to inflation. The present paper seeks to investigate the Macroeconomic impact of crude oil price fluctuations on different economic indicators of India like GDP, Inflation Rate(WPI), Import of Crude Oil, Exchange Rate, Forex Reserve, Oil and Non-Oil Trade Balance etc. by using Correlation Matrix and growth rate. The result shows that crude oil price has positive relationship with Inflation, Gross Domestic Product, Forex Reserve, oil and non oil trade balance while it has negative relationship with import of crude oil and exchange rate. As far as growth rate is concerned, crude oil price, oil and non-oil trade balance has negative growth rate while rest indicators have positive growth rate during recent years of the study period.

KEYWORDS

crude oil prices, inflation, gdp, import of crude oil, exchange rate, forex reserve, oil and non-oil trade balance.

INTRODUCTION

For any developing country, efficient, reliable and competitively priced energy supplies are prerequisites for accelerating economic growth and the strategy for energy development is an integral part of the overall economic development strategy. Efficient use of resources and long-term sustainability always remain core objective of economic planning. Sustainability would take into account not only available natural resources and issues related to ecological balance but also established delivery mechanisms, technological constraints, economic equity and self-reliance. India, being the 7th largest country with the area of 3.29 million square Kilometer and 2nd largest in population of over 1.2 billion, accounts about 17.2% of the world population. The country has to produce about one trillion worth of GDP to fulfill the requirements of its huge population. In order to produce this one trillion-dollar worth of output, India needs 2.5 million barrels of oil per day. This is 4.4 percent of total world demand for oil consumption. The growth rate of demand for oil is around 6.8 percent (FICCI Report 2012). This demand is fulfilled by importing nearly 80% of its crude oil from OPEC nations and rest comes from the domestic oil production. Such a huge demand exerts influence on the growth and inflation levels in India. Despite the domestic prices being affected by International oil market, the sharp increase in International oil prices has not been fully transmitted into the domestic prices in India. The administrated price mechanism had shielded the economy from the impact of oil shocks. The government of India has given up the administrated price mechanism in oil sector and given oil companies the power to decide the price of petrol in the country which has alienated the public from the government and linked the domestic oil prices with international oil prices.

India needs to sustain at more than 8 percent economic growth rate over the next two decades, if it wants to eradicate poverty and meet its human development goals. With high economic growth rates and over 17 percent of the world's population, India is a noteworthy consumer of energy resources. Despite the global financial crisis, India's energy demand continues to rise. Oil is the 2nd largest source of energy after coal in the world. In 2013, India (3.7 million barrels per day or 1.5 billion barrels per year) is the fourth largest oil consuming country in the world after America (19 million barrels per day or 6.9 billion barrels per year), China (10.5 million barrels per day or 3.8 billion barrels annually) and Japan (4.5 million barrels per day and over 1.6 billion barrels per year). According to a report released by an apex industry body ASSOCHAM, Since the domestic output has failed to keep pace with demand, more than half of India's total export earnings went into buying petroleum, particularly, crude oil imports in 2011-12, seriously impacting the country's overall economy.

Recently, it has become increasingly important to study the macroeconomic dynamics in the context of developing nations especially India, due to three main reasons- **Firstly**, India is one of the countries that are being projected for fastest growth in consumption of fuel corresponding to their growth in gross domestic product (GDP) (EIA, 2013). **Secondly**, Given the drastic policy change in India with the deregulation of oil pricing, it is critical to understand the impact of oil price shocks on economic and investment activities in the country and **Thirdly**, Oil import constitutes more than one-third of the total imports value (ESI, 2013) in India which is struggling with high current account deficit (CAD). A value-at-risk analysis report suggested that with every \$10 increase in oil prices, CAD would rise by 0.4 percentage points.

This paper investigates how oil price fluctuations impact India's economy through various channels- impact on the real sector variables of growth and inflation, impact on the external sector variables, i.e. net imports and exports, exchange rates and foreign exchange reserves.

The theoretical framework of the study is captured in Fig. 1. The flow chart depicts how an oil price fluctuation affects the overall economy through the various macroeconomic indicators, monetary policy and investment variables.

OBJECTIVE OF THE STUDY

The main objective of this study is to investigate the macroeconomic impact of crude oil price fluctuations on selected economic indicators of India including GDP, Inflation Rate (WPI), Import of Crude Oil, Exchange Rate, Forex Reserve, Oil and Non-Oil Trade Balance or on Economy.

REVIEW OF LITERATURE

Mohammad Shaidan Shaari and et.al (2012) finding shows that the co- integration between all variables exists at 5 percent significance level in the long run. But in the short run only crude price affected the inflation. Their finding shows that variation in the crude oil price changes the inflation. This finding will contribute to Malaysian government in making policy to control the petrol prices to fight against inflation.

Ibrahim Tuhran and et.al (2012) found out that oil price movements is the second important factor after the financial crisis for any country. As oil price rises there is an apparent depreciation of the local currency against the US dollar and the co-movements have increased during the study period. One of the reasons of co-movement is that emerging economies have recovered more quickly than developed countries from the crisis.

Hassan and Zaman (2012) conclude a weak/negative and significant relation between oil prices and trade balance both in short run and long run in the context of Pakistan's economy.

Ademola Ojebiyi and et.al (2011) investigated that there is a weak relationship between exchange rate and oil price as there are other factors that bring about changes in oil price other than the exchange rate. The activities of OPEC pricing policy and oil speculators also have come to greatly affect the price of crude oil. The results convey that there are other factors that affect the change in oil price apart from the exchange rate. Crude oil price changes are very sensitive to the events around the world and tensions in the oil producing nations.

Syed Abul Basher and et.al (2010) studied that oil price responds to movements in exchange rates and higher oil prices affect the exchange rates in the short run. Positive oil shock leads to immediate drop in the trade weighted exchange rate. These results are consistent with the prediction from a demand and supply model for the oil market. Oil prices respond positively to positive shock in emerging stock markets while responding negatively to the falling market.

Ozlale and Pekkurnaz (2010) found that in the short term, an unexpected increase in oil prices causes the change in the current account ratio to fall even after controlling for output gap and exchange rate in the Turkish economy.

Jin (2008) showed that sharp increase in the international oil price and violent fluctuation of the exchange rate are generally regarded as factors discouraging economic growth. He submitted that oil price increase, ceteris paribus, should be considered positive in oil exporting countries and negative in oil importing countries.

Mehrara & Oskui (2007) studied the macroeconomic fluctuations in four oil-exporting countries –Indonesia, Iran, Kuwait and Saudi Arabia by using a structural VAR approach. They found that oil price shocks are shown to be the main source of output fluctuations in Saudi Arabia and Iran. But in Kuwait and Indonesia, output fluctuations were mainly found due to aggregate supply shocks.

Alotaibi (2006) examines the volatility of oil price, real exchange rate and price level in the members of Persian Gulf Cooperation Council. By using SVAR model, he concludes that real shocks do not affect oil price and nominal shocks do not affect either oil price or GDP.

Olomola and Adejumo (2006) investigated the effects of oil price shocks on inflation, output, real exchange rate and money supply in Nigeria within a VAR framework. They found no substantial role of oil price shocks in explaining movements in output and inflation in short run, but on the long run money supply and real exchange rate are significantly affected following a shock to oil prices.

Brown and Yucel (2002) conclude that the supply side channel best explains the inverse relationship between oil and output and the positive relationship between oil and inflation.

Kling Hamilton (1983) found a significant negative relation between quarterly oil price changes and future GDP growth in the United States. He also found that all but one of the US recessions since World War II have been preceded, typically with a lag of three quarters, by a dramatic increase in the crude oil price.

CRUDE OIL AND INDIA: AN OVERVIEW

India is heavily dependent on coal for about half of its primary commercial energy consumption while the other half being dominated by oil and gas put together. As the Indian hydro carbon industry is currently passing through a challenging phase, increasing concern for energy security, increasingly stringent environmental regulations, emergence of natural gas and soaring crude oil and natural gas prices have thrown up both challenges and opportunities to the Indian oil and gas industry. However, the crude oil prices fall dramatically in the International oil market since June, 2014. As everyone knows Crude oil prices play a very significant role in the economy of any country. India's growth story hovers around the import of oil as India imports more than 70% of its crude requirements. Any negative change in the crude oil price has an immediate positive impact on the increment in the GDP and IIP. Falling of crude oil price reduces the trade deficit and hardens the rupee against the dollar. Moreover, lower crude price may facilitate room to the Reserve Bank of India in adopting growth centric approach while reviewing monetary policy. It is estimated that a fall of USD 10 in crude could reduce the Current Account Deficit by roughly 0.5 percent of GDP and the fiscal deficit by around 0.1 percent of GDP.

Oil prices have already fallen by 60 percent from their 2014 peak. Back in June 2014, the price of Brent crude was at USD 115 per barrel (June 23, 2014). In the last one year, Brent has weakened by nearly 54.04 percent. The fall in prices is largely due to an oversupply situation, triggered by rising US shale oil exploration and decreasing demand by European countries and China due to slow economic growth. Currently, US oil output levels are at their highest in almost 30 years. The oil drilling boom in the US has increased crude production by over 70 percent since 2008.

Investment bank Nomura estimated that the windfall up to a level of USD 40 can potentially boost growth by up to 0.4 percent in the current financial year. Also, a recent research report says that a 10 percent decline in oil prices could reduce retail inflation (CPI)) by around 0.2 percent and push up the gross domestic product (GDP) growth by 0.3 percent. But on the other hand, analysts are also highlights the potential downside of lower oil prices. According to them, many oil projects will face shutdown if black gold retains current levels or slides further. Around USD 2 trillion is now involved in oil exploration business and the companies are trying hard to shelve their production cost. It is going to be very tough for the companies to continue production under these circumstances. There will be either production cuts or the company might declare bankruptcy when production becomes unviable for a long period. Besides oil companies, many oil exporting countries like Russia and OPEC states, are also relying upon high crude prices, and we should therefore expect to see a surge in economic meltdown, bankruptcies and sovereign defaults.

RESEARCH METHODOLOGY

Sample- The data are spread over a decade from 2005-06 to 2014-15 on different macroeconomic indicators of the country. The data collected from various sources like Ministry of Petroleum and Natural Gas, RBI's report, forbes.com, worldbank.org, opec.org, inflationdata.com, cmie.com etc. constituted the basis of study.

Variables- The following macro-economic indicators were analyzed through appropriate statistical technique: Crude Oil Price, Growth Rate of Gross Domestic Product, Inflation Rate (WPI), Imports of crude oil, Exchange Rate, Forex Reserves of India, Oil and Non-Oil Trade Balance.

Methodology- In order to study the impact of crude oil prices fluctuations on other macroeconomic variables, growth rate of all the variables was calculated and further to find out the relationship between all the variables Correlation Matrix was generated.

PERCENTAGE GROWTH IN MACROECONOMIC INDICATORS OF INDIA

According to officially declared figures from the Ministry of Petroleum and Natural Gas, Crude oil production in India recorded a growth of 11.85 percent in 2010-11 as compared with previous year's 0.54 percent and continued to fall till -0.60 percent in 2012-13. Import of crude oil has fallen to 2.72 percent as compared to 19.95 percent in 2009-10. Petroleum refinery production has shown a growth of 2.18 percent in 2011-12 as compared to 18.12 per cent growth in 2009-10.

As far as the growth rate of selected Macroeconomic indicators are concerned, it is calculated with the help of data collected from the various sources including Ministry of Petroleum & Natural Gas (GOI), Reserve Bank of India (RBI) etc. and presented in Table-1. The price of crude oil shows a variation in growth during the study period as it fell from 42.12 percent in 2005-06 to a negative growth rate of -20.24 percent in 2014-15. After 2005-06, crude oil price was highest i.e. 111.6$/barrel in 2011-12 with the growth rate of 31.50 percent in the same year. Gross Domestic Product (GDP) also shows a decreasing growth rate over the study period of time. It fell to 5 percent in 2012-13 as compared to 9.48 percent in 2005-06 and then rose to 7.2 percent in 2014-15. Growth rate of inflation, import of crude oil, exchange rate, forex reserve, oil and non-oil trade balances indicate fluctuations during the study period. These indicators vary from time to time. Over the study period of time, inflation rate was highest in 2010-11 while it was lowest in 2014-15. Likewise, growth rate of import of crude oil was highest in 2009-10 and lowest in 2011-12. Exchange rate was highest i.e. 61.14Rs/$ in 2014-15 but growth rate was highest in 2008-09 and it was 14.11 percent during the study period. Forex reserve shows highest growth rate in 2007-08 and oil and non oil trade balance shows highest growth rate in 2011-12 and 2005-06 respectively. Highest negative growth rate in oil and non-oil trade balance was in 2014-15.

TABLE 1: PERCENTAGE GROWTH IN MACROECONOMIC INDICATORS OF INDIA

Year	Crude Oil Price	GDP	Inflation Rate	Imports of Crude Oil	Exchange Rate	Forex Reserve	Oil Trade Balance	Non-Oil Trade Balance
2005-06	42.12	9.48	4.5	3.69	-1.46	7.14	41.43	168.24
2006-07	12.10	9.57	6.6	12.17	2.28	31.37	18.52	52.78
2007-08	26.88	9.32	4.7	9.12	-11.14	55.50	33.86	77.31
2008-09	5.45	6.72	8.1	9.12	14.11	-18.64	28.95	40.33
2009-10	-16.52	8.59	3.8	19.94	3.27	10.74	-10.86	-3.06
2010-11	21.97	8.91	9.6	2.73	-3.88	9.23	9.40	6.85
2011-12	31.50	6.69	8.9	-2.65	5.15	-3.42	53.42	55.92
2012-13	-3.50	5	7.4	2.73	13.53	-0.80	10.21	-3.01
2013-14	-2.27	6.6	6	4.97	11.20	4.16	-6.82	-58.23
2014-15	-20.24	7.2	2	7.61	1.06	12.29	-95.07	-90.18

Source: Growth rate Calculated by collecting the data from various government sources including -*Ministry of Petroleum & Natural Gas (GOI)
*Reserve Bank of India (RBI).

Notes

1) All variables are in percentage terms.

2) Growth rate in 2005-06 is calculated with the help of previous year data.

Figure-1 showing the impact of crude oil price fluctuations on Macroeconomic indicators. The figure is indicating that inflation rate and exchange rate contradict the crude oil price in initial year and then start moving with the movement of crude oil price. Import of crude oil price is negatively related to the crude oil price. It means as the prices of crude oil increase, imports of crude oil decrease. GDP growth rate does not vary much with the variations in crude oil price. Forex reserve is fluctuating with the crude oil price fluctuations while oil and non-oil are moving in the same direction.

FIGURE 1: TRENDS IN GROWTH RATE OF SELECTED MACROECONOMIC INDICATORS OF INDIA
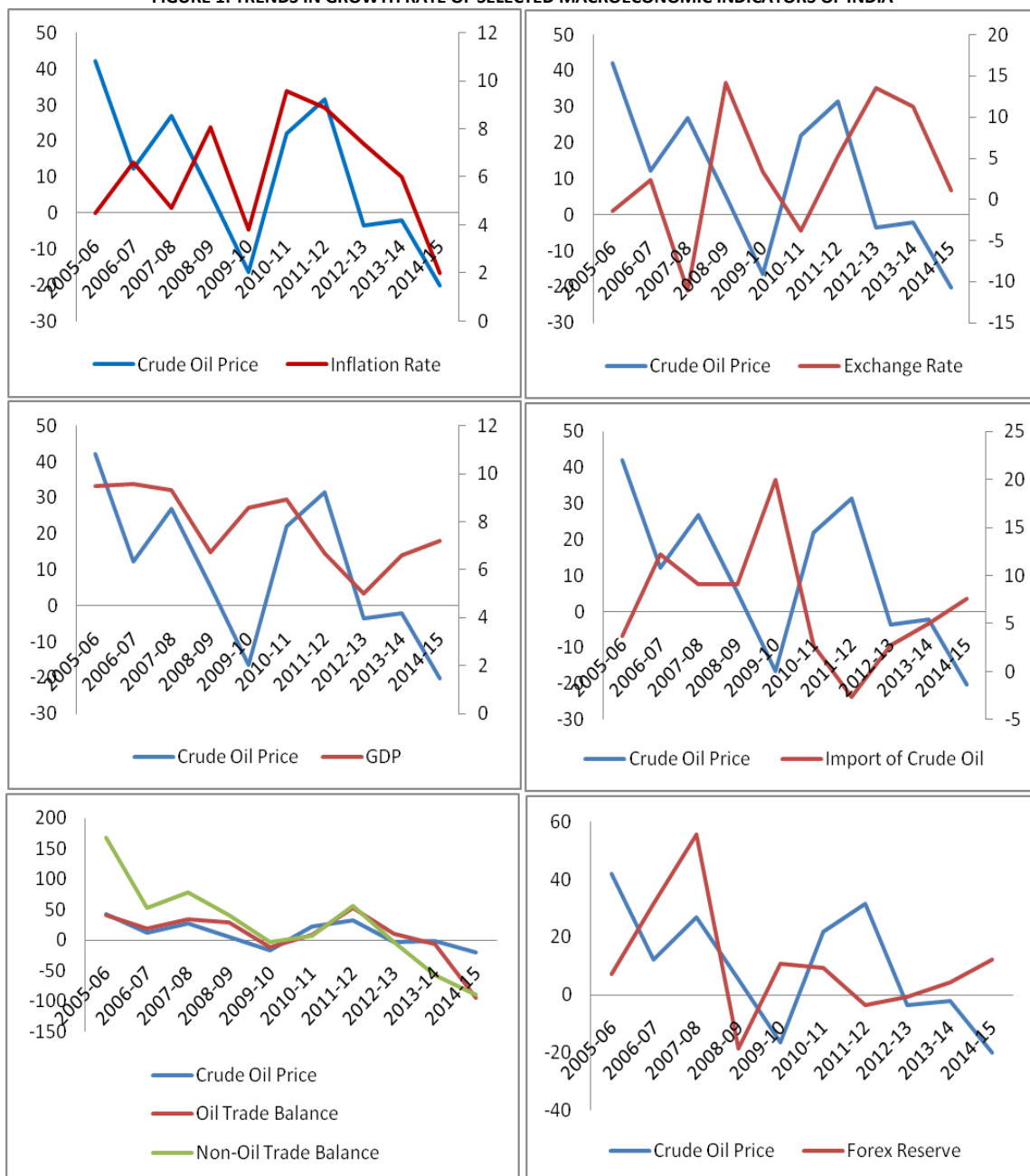
Source: Table-1

TABLE 2: CORRELATION MATRIX

	Crude Oil Price	GDP	Inflation Rate	Imports of Crude Oil	Exchange Rate	Forex Reserve	Oil Trade Balance	Non-Oil Trade Balance
Crude Oil Price	1	0.4336	0.4147	-0.5210	-0.4409	0.1805	0.7951	0.8503
GDP		1	-0.2400	0.3957	-0.7990	0.6422	0.1720	0.5113
Inflation Rate			1	-0.5201	0.2912	-0.3882	0.6176	0.1737
Import of Crude Oil				1	-0.1024	0.3158	-0.2949	-0.1361
Exchange Rate					1	-0.7936	-0.0355	-0.3444
Forex Reserve						1	-0.0124	0.1689
Oil Trade Balance							1	0.7989
Non-Oil Trade Balance								1

Source: Calculated with the help of Table-1.

DATA ANALYSIS AND INTERPRETATIONS

To find out the relationship between Crude Oil prices and other macroeconomic indicators, data sample of 10 years has been collected and Correlation Matrix Model is used. The main objective of this study is to find out the impact of crude oil price fluctuations on selected macroeconomic indicators.

Correlation Matrix: In the correlation matrix inter variables were obtained and presented in Table-3. A perusal of Table-3 during the study period indicated that crude oil prices had moderate degree of relationship with the GDP, inflation rate and high degree of relationship with oil and non-oil trade balance, but growth rate of forex reserve has not shown any inclination towards crude oil price. Further, it was noticed that import of crude oil exchange rate were negatively correlated with crude oil price. As regards intermediary correlations, inflation rate (WPI) has shown significant relationship with exchange rate (positive), oil trade balance and non-oil trade balance (positive) and forex reserve (negative). The correlation matrix further indicated that GDP growth rate were significantly related with forex reserve, import of crude oil, oil non-oil trade balance and negatively related with the exchange rate. Import of crude oil positively related with forex reserve while negatively related with the exchange rate, oil and non-oil trade balance. All the highly significant correlations in the correlation matrix are marked with * and are self explanatory.

SUGGESTIONS

As India is one of the largest oil importers in the world and the crude oil prices have fallen more than 60 percent since June, 2014(Ministry Of Petroleum and Natural Gas, GOI report), the falling crude oil price may affect the Indian Economy in the following ways:

Current account balance- It may help in narrowing India's current account deficit - the amount India owes to the world in foreign currency. A fall in oil prices by $10 per barrel helps reduce the current account deficit by $9.2 billion, according to **Livemint report**. This amounts to nearly 0.43% of the GDP - a measure of the size of the economy.

Inflation- A rise or fall in oil prices leads to an increase or decrease in prices of all goods and services. Every $10 per barrel fall in crude oil prices helps to reduce retail inflation by 0.2% and wholesale price inflation by 0.5%, according to a **Moneycontrol report**.

Oil subsidy and fiscal deficit- since the diesel was recently deregulated, the fall in oil prices will likely have less effect on the government's fiscal deficit. Moreover, the government still has to pay for previous under-recoveries. Any benefit from the fall will be offset by payments for the past under-recoveries.

Rupee exchange rate- The value of Rupee depends on its demand in the currency market which in turn depends on the current account deficit to a great extent. A high deficit means the country has to sell rupees and buy dollars to pay its bill which reduces the value of the rupee. A fall in oil prices is, thus, good for the rupee. However, the negative aspect is that the dollar strengthens every time the value of oil falls. This indicates negative benefits from a fall in current account deficit.

Petroleum product export: Besides the benefits of falling oil prices, it also has its downsides. Directly, it affects the exports of petroleum producers in the country. A fall in oil price may impact the economy, and hamper demand for its products.

CONCLUSION

An effort has been made to find out the macroeconomic impact of crude oil price fluctuation on GDP, Inflation Rate (WPI), Import of Crude Oil, Exchange Rate, Forex Reserve, Oil and Non-Oil Trade Balance. This paper examined the effects of oil price by using growth rate and Correlation Matrix over the period of 2005-06 to 2014-15. As Indian Economy is a developing economy and it has to meet its huge oil demand, it satisfies the demand through more than 80 percent of import, due to which a change in the crude oil price affects other indicators of the economy. The data presented above indicates that the crude oil price has positive relationship with GDP, Inflation rate, Forex Reserve, oil and non-oil trade balance while negative relationship with import of crude oil and exchange rate. It means with the rise of crude oil prices; inflation rises but import of crude oil declines. Fluctuation of crude oil prices does not affect much the GDP and Forex Reserve. It is also examined that GDP has a positive relationship with import of crude oil, forex reserve, oil and non-oil trade balance. As far as growth rate of different factors are concerned it can be concluded from the data that trends in growth rate of crude oil prices followed by inflation rate, fell dramatically during the recent years. Further, fluctuations are also shown in other macroeconomic indicators.

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EXCHANGE RATE VOLATILITY AND NON-OIL IMPORT TRADE IN NIGERIA: AN EMPIRICAL INVESTIGATION

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ABSTRACT

The study seeks to empirically assess the effect of exchange rate volatility on non-oil importation in Nigeria. The discussion over exchange rate volatility and trade remain ambiguous among researchers, some unveiled positive volatility-trade link while negative to others. The study considered fundamentals: exchange rate volatility, domestic income, terms of trade and index of openness to predict non-oil import. This research employed econometric tools through unit root test, ARDL bound test. ARDL Bound test indicates existence of long run relationship among the variables at 1% level of significance. It further revealed that, in the long run exchange rate volatility and terms of trade are insignificant and negatively determined non-oil import, domestic income and openness have positive and significant impact on non-oil import in Nigeria. While in the short run, the signs remain the same only that terms of trade although negative but significantly determine non-oil import. The error correction term shows that about 49% of disequilibrium is corrected within one year. The study recommends that public authority ought to vehemently enhance import-substitute policies and provision of infrastructural facilities especially power supply and means of transportation.

KEYWORDS
ARDL bound test, exchange rate volatility, non-oil import, GARCH.

JEL CODES
F14, F31.

INTRODUCTION

The discussion over volatility-trade link remain ambiguous, consequences of exchange rate volatility on trade have long been at the centre of debate on the optimality of alternative exchange rate regimes. In one hand, the exponents of fixed rates argue that since the advent of the floating regime, exchange rates have been subject to excessive volatility and deviations from equilibrium values have persisted over sustained periods of time. In this regard, exchange rate volatility deters industries from engaging in international trade and compromises progress in trade negotiations. In other hand, proponents of flexible rates argue that exchange rates are mainly driven by fundamentals, and that changes in fundamentals would require similar, but more abrupt movements in fixed parities. Therefore, a system of fixed rates would not reduce unanticipated volatility. Moreover, greater exchange rate flexibility facilitates balance of payments adjustment in response to external shocks, and hence, reduces the need to raise protective tariff barriers or to impose capital controls to achieve equilibrium. (Cote, 1994)

In the recent past, Nigerian naira exchange rate have been rapidly fluctuating, level of agricultural productivity as well as industrial sectors apparently reduced drastically, these associates with less non-oil export with high level of non-oil importation in Nigeria. In the same vein, these incidents may throw Nigerian economy in to doom, this is because Nigeria have been mono-cultural economy, supply primary goods and/or raw materials and importing intermediate and finally produced goods. Therefore, by high volatility in naira exchange rate makes Nigerian currency to be depreciated, paying more and more naira to purchase fewer goods from its trade partners. As a result of this economic menace, the study intends to examine the effect of exchange rate volatility on non-oil importation in Nigeria.

OBJECTIVE
The objective of the study is to measure the effect of exchange rate volatility on non-oil import trade in Nigeria.

EMPIRICAL LITERATURE REVIEW
Using cointegration and vector error correction model (VECM) techniques, Bilquees et al (2010), investigate the impact of exchange rate volatility on export of three South Asian countries: India, Pakistan and Sri Lanka. They discovered that, exchange rate regime and related issues are one of the important yardsticks of the macroeconomic management in striving for economic development through improving the performance of foreign sector.

Theoretically, general appreciation of national currency negatively affects export earnings of country as stated by Hasonov and Ilaha (2010) this theoretical hypothesis is crucial in the case of Azerbaijan due to by one hand increasing appreciation of exchange rate which mainly sourced from huge inflow of oil revenues and by the other hand declining share of non-oil export caused by domination of oil sector in overall economy in recent years. Based on estimation outputs they conclude that real effective exchange rate and real non-oil GDP has statistically significant impact on non-oil export both in the long- and short-run.

Using moving average standard deviation of the percentage change in the real exchange rate as a proxy of exchange rate volatility. Junnan (2010) analyzes the dynamic relationship between real exchange rate volatility and the volume of real export in a small open economy, New Zealand, by employing the error-correction model. The results concerning the effects of exchange rate volatility on real exports suggest that the long-run relationship between New Zealand's real exports and its bilateral real exchange rate volatility is negative and statistically significant, and short-run impact is insignificantly positive.

Bakhromov (2011) described exchange rate may fluctuate quite substantially relative to major currencies, in transition economies, and thus, have a strong impact on country's foreign trade dynamics. This work estimates the effect of exchange rate volatility on the international trade in Uzbekistan during the 1999-2009 period. The empirical findings indicate that, the real exchange rate volatility has a substantial impact on the exports and imports of the country during the above period.

In contrast to most previous works, ARDL approach was found to be an appropriate method to estimate the influence of continuous devaluation on export supply as carried out by Mehere and Edriss (2012) to find the effect of exchange rate variability on export of oil seeds in Ethiopian economy. The result revealed that export of oil seeds has negative relationship with exchange rate variability.

Samimi et al (2012) study the relationship and impacts of uncertainty in currency exchange rate on non-oil exports in Iran. The study covers the years 1978 to 2008. They used cointegration followed by vector error correction model (VECM), the result show that uncertainty in real exchange rate during the period subject of study had negative impacts on exports in Iran. Specifically, fall in exchange rate uncertainty will increase export and vice versa.

Rahutami (2012) examine the impact of exchange rate volatility on real export of ten ASEAN (Association of South East Asian Nation) members on export and import. Panel regression method was used to verify the relationship among variables. The result provides evidence that exchange rate volatility has no statistically significant on the export and import of ASEAN member states (AMSs).

Lewis (2012) discovered that, U.S. imports and exports respond little to exchange rate changes in the short run. Further says that, pricing behaviour has long been thought central to explaining this response: if local prices do not respond to exchange rates, neither will trade flows.

Nuroglu and Kunst (2012) analysed the effects of exchange rate volatility on international trade flows by utilising two different approaches, the panel data analysis and fuzzy logic, the estimated result is clearly negative. Both approaches provide very similar results and fuzzy approach is recommended to be used as a complement to statistical methods.

Calio and Bas (2012) discovered the impact of exchange rate volatility on international trade is small for industrialized countries, especially since the late 1980s.

Dickson (2012) evaluate the effect of exchange rate volatility on economic growth in Nigeria on the basis of annual data from 1970 to 2009. His findings show that in the short run, economic growth is positive responsive to exchange rate volatility, while in the long run a negative relationship persist between the two variables. In line with above although different objectives but same methodology, Dickson and Andrew (2013), investigate the hypothesis that exchange rate risk affect international trade. Theoretically and empirically, the results are mix and inconclusive. The result revealed that exchange rate volatility is insignificant in explaining variations in import but significant and positive for export.

Cetin and karakaya (2013) examine the impact of real exchange rate volatility on the demand for electrical export, which is second largest sub-sector of machinery in Turkey through multivariate cointegration and error correction models. Their estimated result suggest that real exchange rate exerts a negative and significant impact on electrical export both in long and short run, while its volatility has only a positive and significant impact in the long run.

Adeniran et al (2014) found that exchange rate has positive impact on economic growth but not significant.

GARCH-based exchange rate volatilities and the least-squares dummy variable technique with fixed-effects estimation to measure the volatility impact on trade with reference to Pakistan's trading partners was used by Abduljalil et al (2014). They evaluate a series of exchange rates from 1970 to 2009 to compare the long run impact of volatility with that of the short run. The results indicate that, when Pakistan employed the US dollar as currency with its trading partners, volatility discouraged both imports and exports (international trade).

Danladi et al (2015) discovered that volatile exchange rate makes international trade and investment decisions more difficult, because volatility increases exchange rate risk. In their effort to evaluate the impact of exchange rate volatility on international trade in Nigeria on the basis of annual data from 1980 to 2013, it was observed from ECM analysis that exchange rate volatility negatively affects international trade.

Using a vector error correction model on time series annual data from 1971 to 2012 by Odili (2015) examined the long-run and short-run impacts of real exchange rate volatility and the level of economic growth on international trade in Nigeria. The empirical findings revealed that in both short-run and long-run, exports and imports were chiefly influenced by free determine variables. The findings further indicate that, exchange rate volatility reduce exports and imports in the long-run.

Almohaisen (2015) investigates the Exchange Rate volatility effects on Jordanian International Trade from 1997Q1 to 2013Q2. Empirical findings revealed that, there is negative effects of real exchange rate volatility on imports and exports of Jordanian economy and a positive effect on real GDP.

RESEARCH METHODOLOGY

The study employed Autoregressive Distributed Lag (ARDL) model in assessing the effect of exchange rate volatility on non-oil trade in Nigeria. This is in line with methodology used by Mehere and Edriss (2012). Using the sample of 33 years starting from 1981 to 2013, the variation in non-oil import assumed to be explained by exchange rate volatility, domestic income (gross domestic product as a proxy), and Nigeria's terms of trade and index of openness. The methodology begins with checking the stochastic process of the data series using augmented dickey-fuller and Phillips-perron tests. The former uses parametric while the later uses non-parametric statistical method, idea behind this is phillips-perron account for serial correlation in the disturbance term, without necessary adding lagged difference terms.

MODEL SPECIFICATION

As stated earlier, exchange rate volatility, domestic income, terms of trade and index of openness were taking as a fundamental to determine non-oil import in Nigeria, in essence we are interested in this relationship:

$IMP = f (EXC, DI, TOT, OPN)$ (1)

For the purpose of this study, we want to measure whether long run relationship persist among these non-stationary variables, in its basic form, ARDL model can be specified as:

$$\Delta Y_t = \alpha_0 + \sum_{i=1}^{p} \beta_i \Delta Y_{t-1} + \sum_{i=1}^{q} \gamma_i \Delta X_{t-1} + \delta Z_{t-1} + E_t$$ (2)

Y_t = the value of dependent variable

Y_{t-1} = the lagged value of the dependent variable Y

X_{t-1} = the lagged value of independent variable X

Z_t = first lag of the independent variables in relation to long run elasticity

E_t = the error term which assumed to be serially independent and homoscedastic α_0, β_i, γ_i, δ are the coefficient

The only co-integration and error correction method that allows some of the variable to be stationary I(0) and non-stationary I(1) is ARDL Bound test approach advocated by Pesaran et al (2001).

For the purpose of this study, all variables are converted into log, so that to analyse the rate of changes in the regressors, reduce the level of serially correlated that may happen in the error term as well as the Heteroscedasticity. To estimate the long run relationship among the variables, equation three below is considered:

$\ln IMP = \alpha_0 + \beta_1 \ln EXC + \beta_2 \ln DI + \beta_3 \ln TOT + \beta_4 \ln OPN$ (3)

ARDL approach considers two things. First, examine if there is long run relationship among the non-stationary series (in variable under investigation). Second, estimate the coefficient of the long run relationship and the error correction model.

FINDINGS AND DISCUSSION

This section involves the presentation of all results found in this work. While using time series data it's necessary to check whether the series is white noise. In other words, it's very vital to check time series data to whether it's stationary or not. To this end, this section will start by presentation of stationarity test using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root test. The table 1 below summarises ADF tests:

TABLE 1: AUGMENTED DICKEY-FULLER TEST

Variables	Level		First difference		order
	Intercept	Trend & int	Intercept	Trend & int	
LNIMP	-0.52	-2.34	-6.98*	-6.85*	I(1)
LNEXC	-1.94	-0.91	-4.80*	-5.25*	I(1)
LNDI	-0.77	-1.13	-4.97*	-4.13**	I(1)
LNTOT	-1.26	-2.12	-4.61*	-5.44*	I(1)
LNOPN	-1.52	-3.45***	-7.97*	-7.84*	I(0)

Source: author's computation using e-views 9, *, ** and *** denote rejection of null hypothesis at 1%, 5% and 10% level respectively.

From the stationarity test above, all the series were non-stationary except index of openness (lnopn) which become stationary I(0) at 10% level of significant. Other data become stationary after taking the first difference I(1) at 1% level of significant.

In other hand, the series were rechecked using Phillips-Perron test, the summery of the results is presented in the table 2 below:

TABLE 2: PHILLIPS-PERRON TEST

Variables	Level		First difference		Order
	Intercept	Trend & intercept	Intercept	Trend & intercept	
LNIMP	-0.35	-2.49	-6.95*	-6.86*	I(1)
LNEXC	-2.09	-0.88	-4.80*	-6.09*	I(1)
LNDI	-0.76	-1.26	-4.94*	-4.96*	I(1)
LNTOT	-1.31	-2.74	-5.43*	-10.02*	I(1)
LNOPN	-1.34	-3.64**	-7.97*	-8.01*	I(0)

Source: author's computation using e-views 9 NOTE: * and ** denote rejection of null hypothesis at 1% and 5% level respectively.

The result is almost similar to ADF, where all series were not stationary except lnopn which become stationary at 5% level of significant. Other variables become white noise after taking the first difference. Here, we have mixture of both stationary and non-stationary data, and the only cointegration test that permit or allow such combination of data is the ARDL/Bound test. This test will help us to analyse whether a long run equilibrium persist among the variables in the model. In other words, ARDL approach infers whether there is long run association among these non-stationary series. Therefore, ARDL/Bound test can be presented in table 3 below:

TABLE 3: BOUND TEST

F-statistics	Critical bound values		significance
	I(0) bound	I(1) bound	
5.438094	2.45	3.52	10%
	2.86	4.01	5%
	3.25	4.49	2.5%
	3.74	5.06	1%

Source: author's computation using e-views 9

Table above indicates the existence of long run relationship among the variables. The criterion is that; f-statistics is at the extreme right of the critical upper bound at each level. Therefore, accept that long run relationship exists among the variable at 1% level of significant. In other words, f-statistics exceeds upper bound limit of the critical values at all level, which is clear indication of rejection of null hypothesis.

Since we accept persistence of long run relationship among fundamentals, next is to estimate the long run coefficients and error correction model. Simply, we can estimate long run and short run coefficients. Table 4 below present long run coefficient:

TABLE 4: LONG RUN COEFFICIENTS

Variables	coefficients	probabilities
LNEXC	-0.023070	0.8447
LNDI	0.893350*	0.0000
LNTOT	-0.119561	0.4113
LNOPN	1.482524*	0.0005
C	0.944531	0.3979

Source: author's computation using e-views 9 NOTE: * denote rejection of null hypothesis at 5% level.

From the table above, exchange rate volatility found to be negatively insignificant, a unit change in exchange rate volatility implies reduction in non-oil import by 0.023. Domestic income was positive and statistically significant; a unit change in domestic income causes non-oil import to increase by 0.89. Also in the long run terms of trade although negative but statistically insignificant, a unit change in terms of trade may decrease non-oil import up to 0.12. Finally, the index of openness which theoretically assumed positive relationship with import, in line with this claim, this empirical work verified the statement by estimating openness as positively significant in relation to non-oil import, a unit change in openness increase non–oil import by 1.48. Based on the above result, the normalized equation can be presented below:

LNIMP=0.945-0.023*LNEXC+0.893* LNDI -0.120*LNTOT+1.483*LNOPN

Having estimating long run coefficients, the best thing is to estimate the short run behaviour of the variables. This is to say, we can now estimate the short run coefficient and their speed of adjustment towards equilibrium or simply the error correction term. Table 5 below present the cointegrating coefficients:

TABLE 5: SHORT RUN COEFFICIENTS

Variables	Coefficients	probabilities
D(LNEXC)	-0.169452	0.0554
D(LNDI)	1.047783*	0.0000
D(LNTOT)	-0.446256*	0.0008
D(LNOPN)	1.024994*	0.0000
Cointeg(-1) or Z(-1)	-0.494394	0.0028

Source: author's computation using e-views 9NOTE: * denote rejection of null hypothesis at 5% level.

From the short run variable relationship above, exchange rate volatility was found negative and insignificant, a unit change in the volatility of exchange rate may cause about 0.17 decreases in non-oil import. This implies that, in accordance with demand theory, consumer reduces purchasing imported products as the price increase. This is to say that, high volatile in naira exchange rate makes price imported commodities to rise, it's then expected that, demand of domestic currency (naira) will fall and consequently reduce non-oil import.

Domestic income was found positive and statistically significant in explaining the variation in non-oil import, a unit change in domestic income will makes non-oil import to increase by 0.05. This robust relationship implies that, as there is too much naira in circulating, non-oil import tends to increase. That is people purchase more of non-oil imported commodities.

In the short run terms of trade was found to be significant and negative. This inverse relationship of terms of trade to non-oil import is apparently in line with its definition. Increase in terms of trade indicates fall in imports. As empirically found in this work, a unit change in terms of trade decreases non-oil import with about 0.45, therefore, any unit change in terms of trade will decrease non-oil import in Nigeria.

As a ratio of summation of trade to GDP, openness is expected to positively related with import. The result above indicates that, openness is positively related with non-oil import and statistically significant, a unit change in openness will bring about 1.02 increases in dependent variable.

Error correction term was negative and statistically significant. The negative and significant value of error correction term (ECT) or speed of adjustment, that is -0.494394(0.0028), further confirm the presence of long run relationship among variables. ECT indicates that, about 49% corrections towards long run equilibrium is corrected within the period of one year, within two years is expected to be near its initial equilibrium. R-squared value shows 99% variation of dependent variables is explained by explanatory variables. F-statistics and its probability indicate overall significance of the model i.e 1168.398(0.000000). Also Durbin-Watson (DW) statistics values shows that the model is free from serial correlation, that is the model is serially independent with value approximately to two (1.687).

RESIDUAL DIAGNOSTIC AND STABILITY TESTS

To ensure the robustness of the model used, some certain residual criteria are expected, such that different diseases which might mislead the result and ends up wrong interpretation and conclusion. These diseases can be examined through; breusch-pagan-Godfrey test for heteroscedasticity, Breusch-Godfrey LM test for autocorrelation, Ramsey RESET test and Jarque-Bera normality test. These tests can be presented in the table 1.6 below:

TABLE 6: RESIDUAL DIAGNOSTICS AND STABILITY TESTS

Test	Null hypothesis (H_0)	F-statistics	Probabilities
Breusch-pagan-Godfrey heteroscedasticity test	Constant variance	0.313834	0.9869
Breusch-Godfrey LM test for autocerrelation	No serial correlation	0.284670	0.6051
Jarque-Bera normality test	Normally distributed	3.449238	0.1782
Ramsey RESET stability test	Model has no omitted variables	0.235605	0.6333

Source: author's computation using e-views 9

The table above clearly indicates the acceptance of null hypothesis at each test. That is to say the series is free from serial correlation, has constant variance and the residuals are normally distributed. Also the Ramsey RESET test indicates no variable excluded or omitted from the model. Therefore, these further indicate the significance of the model.

CONCLUSION

The purpose of this study is to estimate how exchange rate fluctuations affects non-oil import trade in Nigeria. Unit root test was conducted using Augmented Dickey-Fuller and Phillips- Perron tests, it revealed the evidence of stationarity at level for one variable while for others at first difference. To estimate the nature of such relationship only ARDL Bound test advocated by Pasaran and Shin (2001) allow the mixture of stationary and nonstationary data. The result shows the persistence of long run relationship among the variables at 1% level of significance. The estimated coefficients indicate that exchange rate volatility negatively affects non-oil import, but its effect is insignificant in both short run and long run. This perhaps due to Nigerian economy largely depends on import. Theoretically, high demand of foreign currency depreciates domestic one, therefore, Nigerian naira value falls drastically, this indicate paying more naira to purchase few goods from its trading partners. Though, the prices of imported commodities are increasing, the economy may find it difficult to cut down large volume of its importation, this makes the effect of exchange rate volatility although negative but insignificant to affects non-oil import trade in Nigeria. The empirical findings indicate that the model is significant, and the same in line with the theory. The study suggests that, public authority ought to vehemently enhance the policies for import-substitute commodities production; this will drastically reduce the level of naira demand for non-oil import. Strict import duties should be imposd, which may raise the revenue of the government and at the same time serves as import barriers.

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