Chapter 2 Review of Literature

Globally it is realized that 'financial inclusion' is imperative for sustainable growth of any economy. An economy cannot prosper until and unless the entire population participates in the process of economic growth and development. Certainly finance and liquidity are essential prerequisites of any productive process, thus people can participate in productive process only when they have timely and easy access to financial resources. In this background financial inclusion is a major agenda of all governments especially developing countries like India.

The issue of financial inclusion emerged during the period of first decade of 20th century when cooperative movement took place first time in India. The government of India and Reserve Bank of India (RBI) have been pursuing to achieve the goal of financial inclusion over the last several decades through building the rural cooperative structure in the 1950s, the social contract with banks in the 1960s and the expansion of bank branch networks in the 1970s and 1980s. It is significantly traced back at the time of nationalization of 14 major commercial banks in India in 1969. As a consequence, the large number of bank branches was opened across the nation even in area that was unreached by banks. The Nobel Laureate **Prof. Muhammad Yunus Khan** developed a Grameen Model and finally he named his model as Grameen Bank in late 1980 in Bangladesh. **C. Rangarajan** Committee was constituted on financial inclusion in 2006. Nowadays, financial inclusion is becoming priority sector for policymakers and regulators in financial sector. The developing as well as developed nations are taking initiatives for improving the formal financial system and making financial access to vulnerable groups such as low income group or poorest of poor people. Financial inclusion is a great step to alleviate poverty in India (Singh, 2012).

Policy makers, thinkers, NGOs and academicians have written extensively on issues of financial inclusion in India as well as at global level. These valuable studies/ works provide insights on various aspects of this crucial issue for further study. In this chapter, an attempt has been made to review the available literature on issues such as Inclusive Growth and Financial System, Financial Inclusion In World Scenario, Financial Inclusion In India, Awareness about Financial Inclusion, Availability of Financial Services, Role of Financial Institutions in Financial Inclusion, Role of Information Communication Technology in Financial Inclusion, Role of Post Office Saving Banks (POSBs) in financial inclusion and measuring financial inclusion and these studies have been presented section-wise.

2.1 Inclusive Growth and Financial System

As per the approach of twelfth five year plan (2012-17), Planning Commission of India aims to achieve faster, sustainable and more inclusive growth. The issue of financial inclusion is emerging as new paradigm of economic growth. The importance of financial inclusion in ensuring inclusive growth is well accepted in academic and policy circles (Dhanya, 2012). The main objective of financial inclusion is to extend the financial services to uncovered population of the country to foster the inclusive growth. The two important concepts i.e. financial inclusion and inclusive growth, question arises that which one did come first? The theories of development have focused on accelerating growth and concentrated on capital as a critical factor for growth. Finance was never considered as a factor for growth. The growth was considered as a precondition for the financial sector development (Thingalaya, Moodithaya & Shetty 2010). Developing inclusive financial system and improving access to finance may accelerate economic growth along with a reduction in income inequality and poverty. It is therefore, financial inclusion is pertinent factor for inclusive growth. Kidwai (2012) explained the significance of financial inclusion to accelerate the inclusive economic growth in her book titled as “Contemporary Banking in India”. She said that financial inclusion facilitates inclusive growth. The significance of inclusive economic growth has now become a priority for many countries. The inclusive growth cannot be achieved without financial inclusion. Accessing of safe, easy and affordable credit and other financial services to vulnerable group such as low income group is considered as a precondition for accelerating inclusive growth and reducing income disparities. An inclusive financial system creates equal opportunities to enable economically and socially excluded people to make their better performance and contribute to inclusive development. Financial inclusion can be regarded as a counterpart of the inclusive growth in the real sector. Former Finance Minister Pranab Mukherjee (2010) said financial inclusion is a key determinant of sustainable and inclusive growth which could unlock the vast hidden potential of savings consumption and investment propensities of the poorer sections of society. Finance minister of India Sh. Arun Jaitley spoke about Indian economic growth in parliament on July 09, 2014 that “The growth slowdown in the last two years was broad based, affecting in particular the industry sector. Inflation too declined during this period, but continued to be above the comfort zone, owing primarily to the elevated level of food inflation". The literature witnesses the relationship between economic growth and financial system.

Dhanya (2012) found the positive relationship between bank credit and economic growth at aggregate level, both in long run as well as short run in Kerala but not significant relationship between output growth and sector wise development of credit. Indian economy is growing mainly because of the expansion of economic activities across the sectors i.e. agriculture, manufacturing, and service sectors.

Chakrabarty delivered presidential address on key drivers for inclusive growth at Clarity through debate series organized by the Mint on August 10th 2009 at Chennai. He highlighted the role of financial inclusion in achieving inclusive growth. The process of financial inclusion in India can broadly be classified into three phases. The first phase (1960-1990) focused on channeling of credit to the neglected sectors of the economy and weaker sections of the society. Second phase (1990-2005) focused mainly on strengthening the financial institutions as part of financial sector reforms, financial inclusion during this phase was encouraged mainly by the introduction of Self-Help Groups (SHGs) bank linkage programme in the 1990s and Kisan Credit Cards (KCCs) for providing credit to farmers. During the third phase 2005 onwards, the financial inclusion was made as a policy objective and thrust was on providing safe facility of savings deposits through No-frill accounts. It is concluded that financial inclusion along with governmental development programmes will lead to overall financial and economic development in our country and it will be the key driver in order to achieve inclusive growth.

Mohan (2009) tried to examine the contribution of financial inclusion to achieve the greater economic growth and put a light on present situation of financial inclusion in India. The study highlighted that although India has a lower rank in financial depth and India’s rural economy has shifted towards more commercialized agriculture and non-agriculture. So it is very important to include the people in the folds of financial services. The study concluded that financial inclusion will help in further development of India’s financial system and promotion of economic growth.

Swamy & Lakshmi (2007) explored the role of financial inclusion in achieving inclusive growth in India and what are challenges to include the people in the fold of financial services. The study reveals that only 34 percent people are connected with the formal financial system and out of them 40 percent were not using the account once in a month. The study concludes that financial inclusion has far reaching consequences which can help many people come out of poverty condition and also plays an important role in economic growth by providing the financial service at affordable cost to the households.

Rama (2010) explored the financial inclusion as best practices for the inclusive growth. The study revealed that banking services and insurance hold the key for the inclusive growth of the nation and ensure that every person must be able to have his/her basic needs like, access of food, clothing, education, health, care, and shelter met. Financial inclusion helps to achieve the above goal of inclusive growth; because it ensures that a range of appropriate financial services are available to every individual.

Ravichandran & Alkhathlan (2009) attempted to explore the relationship between the financial inclusion and economic growth. The study found that lack of awareness, low-income social exclusion, illiteracy, and distance from branch, branch timings, language, and staff attitudes are the common reasons for their exclusion. The study suggested that some model like, SHGs and bank linkage model, MFI and bank linkage model and NBFC mode, and post office model to overcome the problem of financial exclusion. The study found that financial inclusion can help to achieve the inclusive growth and also in reducing the poverty, but it must be supported by various influences like; technology, financial education, counseling and society.

Report of the High Level Committee for Preparation of the Information Technology Vision Document 2011-17 has taken into consideration the issues, challenges, evolving technology and changing business environment. It is recommended that there is need to adopt efficient solutions, which can be enabled to improve methods of data submission, receipt of data for staging purpose, transfer of clean data for appropriate access and analytical capability to the stored data. It is also recommended in vision that RBI need to move to a fully IT enabled workflow and document management system for paving the way for a less-paper work.

2.2 Delineating the Financial Inclusion

The concept of financial inclusion is defined by eminent scholars, various committees on financial inclusion, and governments at national and international level in several dimensions. Few scholars believe that people may be financially included who have bank account. On the other hand, some of them argue that financial inclusion is not only concerned with opening bank account, but also concerned with other financial services like credit from formal financial system, getting remittance from abroad, insurance policy, deposits in post office saving bank etc. Financial inclusion may be defined in two terms like narrow term and broader term. According to narrow term, financial inclusion means opening bank account. According to broader term, financial inclusion may be defined as delivery of financial services to vulnerable groups such as marginalized farmers, disadvantaged and low income households at bottom of the pyramid at affordable cost.

Asian Development Bank (ABD 2000) defined the financial inclusion is provision of a broad range of financial services such as deposits, loans, payment services, money transfers and insurance to poor and low-income households and their microenterprise.

Scottish Government (2005), financial inclusion is access for individual to appropriate financial products and services. This includes having the capacity, skills, knowledge and understanding to make the best use of those products and services. Financial exclusion by contrast is the converse of this.

United Nations (2006), a financial sector that provides access to credit for all bankable people and firms, insurance for all insurable people and firms and savings and payment services to everyone. Inclusive finance does not require that everyone who is eligible to use each of the services, but they should be able to choose to use them if desired.

Leeladhar (2006) defines financial inclusion usually refers to the delivery of banking services at an affordable cost to the vast sections of the disadvantaged and low-income groups.

Thorat Usha (2007) defined financial inclusion as the provision of affordable financial services, (vis. Access to payments and remittance facilities, savings, loans and insurance services) by the formal financial system to those who tend to be excluded.

Sarma and Pais (2008) defined financial inclusion refers to as a process that ensures the ease of access, availability and usage of the formal financial system for all members of an economy.

Rangarajan Committee (2008) defined financial inclusion as a process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income group at affordable cost.

Chakrabarty (2009) defined that financial inclusion is much broader term which can be construed as the process of ensuring fair, timely and adequate access to financial services namely; saving, credit, payment and remittance facilities, and insurance services at an affordable cost in a fair and transparent manner by the mainstream institutional players.

Raghuram Committee on Financial Sector Reforms (CFSR), Financial Inclusion is expanding access to financial service, such as payment services, saving products, insurance products, and inflation-protected pensions.

Banking Association of South Africa defined financial inclusion as "Access and usage of a broad range of affordable, quality financial services and products, in a manner convenient to the financially excluded, unbanked and under-banked; in an appropriate but simple and dignified manner with the requisite consideration to client protection.

Accessibility should be accompanied by usage which should be supported through the financial education of clients".

Accion International (2009) defined financial inclusion as a state in which all people of working age have access to a full suite of quality financial services, provided at affordable prices, in a convenient manner, and with dignity for the clients.

Centre for Financial Inclusion (CFI) helps bring about the conditions to achieve full financial inclusion worldwide through collaboration. Financial inclusion means everyone has access to a range of quality financial services at affordable prices with convenience, respect, and dignity, delivered by a range of providers in a stable, competitive market to financially capable clients. Quality and access are the double heart of CFI's vision.

Joshi (2012) defined the concept of financial inclusion in her book titled "The Financial Inclusion Imperative and Sustainable Approaches" that financial inclusion refers to delivery of banking services at an affordable cost to the vast sections of disadvantaged and low-income groups who tend to be excluded from the formal banking channel.

Prof. Raghuram Rajan committee on financial sector reforms defined financial inclusion as expanding access of financial services, such as payment services, saving products, insurance products and inflation protected pensions.

CRISIL (2013) defined the financial inclusion as the extent of access by all sections of society to formal financial services such as credit, deposit, insurance, and pension services.

Accion (2013) cleared that financial inclusion is much more than “banking the unbanked”. The centre for financial inclusion envisions financial incluison as a state in which all people who can use them have access to a suite of quality financial services, provided at affordable prices, in a convenient manner, and with dignity for the clients. Financial services are delivered by a range of providers, most of them private, to financially capable clientele.

The Global Financial Development Report (World Bank, 2014) identifies four major forms of financial exclusion, which are classified into voluntary and involuntary exclusion. Voluntary exclusion includes no need for financial inclusion, cultural & religious reason not to use, indirect access. Involuntary exclusion includes insufficient income, high risk, discrimination, lack of information, weak contact, enforcement, product feature, price barriers due to market imperfections.

2.3 Financial Inclusion in World Scenario

In the present era, financial inclusion has become the priority sector of government in making public policy. Financial inclusion can be regarded as a counterpart of the inclusive growth. Financial inclusion is important aspect to foster the inclusive growth. Recently Prime Minister of India, Sh. Narender Modi launched a new financial scheme ‘Pradhan Mantri Jan Dhan Yojana’ in August month of year to help the poor people for the bank account with Rupay card facility and insurance cover of one lakh rupees (Modi 2014). This yojana is implemented on a mission mode basis. At the day of launching scheme, government achieved the target of opening 1.5 crore bank accounts all over India in first phase. It is not only a counterpart of inclusive growth in India, but also in rest of the world.

Jones (2008) argues that credit unions play significant role in tackling the poverty and promoting financial inclusion in Britain. This research study identified the two major transaction service options developed in Britain as a direct result of government policy to achieve financial inclusion, basic bank accounts and the Post Office Card Account (POCA), fail to provide appropriate banking transaction services. There were problems with both opening and using accounts as they were not widely promoted by bank branches in the interest of low income consumers.

Swain and Singh (2008) focused that Indian financial depth is much lower than that of other Asian countries, though it has picked up in the recent past. While there were evidence of an increase in financial deepening, particularly during the present decade, the increase in the breadth and coverage of formal finance has been less than adequate. The study concluded that deepening the financial system and widening its reach is crucial for both accelerating growth and for equitable distribution, given the present stage of development of our country.

Leyshon, French et. al. (2008) illustrated how the branch networks of bank and building societies in Britain have been in declining since late 1980s. In this regard Britain is not alone, but studies shows that Australia and New Zealand have also comparable rates of decline.

Khan (2008) highlighted three main arguments emerged from the analysis. First, further research – both quantitative and qualitative is required in a variety of areas to investigate in greater detail the indicative trends that Black and Minority Ethnic(BME) groups are more at risk of financial exclusion. Second, existing policy should better consider the potentially disparate impact on BME and indeed other disadvantaged groups. Third, a narrow focus on financial inclusion is incapable of capturing either the empirical reality of access to financial institutions and service.

Swain and Wallentin (2009) empirically examined the relationship between the Self Help Group (SHG) participation and women's empowerment by using Robust Maximum Likelihood (RML) approach. The results strongly indicate that SHG members are empowered by participation in microfinance programme. It is found that women have a greater propensity to resist existing gender norms and culture of society that restrict women to make choices and to take own decision.

Handoo (2009) broadly divided this research study into two parts. First part of paper highlighted an overview of the existing technology led branchless models of financial inclusion across the world and also highlighted how populations at bottom of the pyramid across the spectrum of developing world have gained access to financial services. This paper also highlighted role of regulatory environment which has paved path for development of technology led models in the emerging economies of the world. In the second part, the paper vividly described various technology led models of financial inclusion – particularly branchless, which have mushroomed in India for last few years.

Manji (2010) attempted to explore the implications for women of the apparently gender-neutral project of formalization and financialisation. The study argued that as asset-backed lending expands, commercial banks will come to play an increasingly important role in third world economies and also argued that it will be difficult to reconcile promotion of financial inclusion with the professed aim of international development to end the poverty in Africa.

Wong & Yan (2010) investigated that biometric system and branchless banking provide to bank and its customers to help for coming under the fold of financial system. The biometric and branchless banking has positive economic impact on overall economy. Financial inclusion enables more savings, which are a source of investment capital. Over the time, these investments can lead to higher income generation and trigger a whole host of social benefits, such as better nutrition, health and education.

Kunt & Klapper (2012) found that less than a quarter of adult in Africa have an account with financial institutions and other significant thing is observed that many adults use informal method to save and borrow money. By comparing with other developing economies, it is found that high growth small and medium enterprises in Africa are less likely to use financial institutions and they suggested the formal financial systems is serving the needs of enterprises with growth and opportunities.

2.4 Financial Inclusion in India

2.4.1 Financial Literacy and Financial Inclusion

Thorat (2008) delivered a lecture on inclusive financial system for the aged at the 8th Annual IEEF retirement policy conclave jointly hosted by Invest India economic foundation (IEEF) and the PFRDA at New Delhi. She believes that financial literacy alone is not enough but there has to be responsible selling of products; especially to vulnerable sections of society including, among others, senior citizens and low income groups. The Government of India had launched the Senior Citizens Savings Scheme (SCSS) with attractive interest rate exclusively for the benefit of senior citizens with effect from August 2, 2004. The RBI has issued necessary instructions to permit for formulation of fixed deposit schemes especially for resident Indian senior citizens offering higher and fixed rates of interest as compared to normal deposits of any size. The RBI has issued special instructions aimed at facilitating opening and operations of accounts by old and incapacitated people.

Lusardi1 (2008) demonstrated widespread financial literacy among U.S. demographic population group such as low education, women, and African- American particularly low level of literacy. It is observed the financial literacy as an essential tool for informed consumer choice. It is also observed that financial literacy impacts decision making and improve saving behavior effectively.

UK Trade and Investment (2009) revealed that financial education plays a vital role in supporting inclusion. Individuals need to know enough about what financial services have to offer the risks and benefits and understand the terminology to make sensible decisions on where to place their savings. Financial awareness plays a vital role in supporting financial inclusion. In both India and the UK, there are programmes to enable consumers for meeting their finance requirements and to raise public awareness of the essential role of financial services in driving economic prosperity.

Chakrabarty (2009) believes the establishment of financial literacy and credit counseling (FLCCs) is an important milestone in financial inclusion. The opening of bank account or no frill account is itself not financial inclusion. It is just beginning. People should be made financial literate. FLCCs play an important role in making people financial included.

UNDP Report (2012) has accepted financial literacy as a chief tool for financial inclusion and client protection. The report recommends that the structured form of programme can be delivered through SHGs and NABARD platform. The resources of NABARD could be used to conduct financial literacy programmes on a greater scale using a more structured approach. In India, the report reveals that financial literacy could now be only for the disadvantaged needy/underprivileged/poor but this is a continuous process where all citizens of the country should be periodically educated.

Organization for Economic Cooperation and Development (OECD) observed in its guiding principles for nation strategy, Financial Literacy is a combination of financial awareness, knowledge, skills, attitude, and behaviors necessary to make sound financial decisions and ultimately achieve individual financial wellbeing.

Khan (2013) observed that spreading awareness can be done through innovative dissemination channels including films, documentaries, pamphlets, and road shows. RBI is in process of launching the electronic Banking Awareness and Training (e-BAAT) programmes to increase awareness about technology – enable financial services. It is suggested that financial literacy should be included as a regular curriculum in syllabus.

CRISIL Inclusix (2013) shows the significance of financial awareness for extending the financial inclusion. Financial awareness is vital for wealth, creation, and fostering financial awareness is a key component of CRISIL's corporate social responsibility

(CSR) agenda. As the leader in financial analytics, CRISIL believes that the best way for it to give back to society is by doing more of what it is good at.

The Technical Committee on Mobile Banking (2014) recommended that bank must continue to invest in handholding and educating customers to increase the awareness of various aspect of mobile banking and bank collectively invest in marketing and advertisement for widespread promotion of mobile banking.

2.4.2 Availability of Financial Services

Sanae (2003) examined the ways in which the notion of social capital is employed to explain the success of microfinance programme. In this paper, it is argued that various types of social interactions that are generated around successful microfinance operations are randomly called social capital. It was found that group based microfinance schemes is the way in which social capital has positive development outcomes.

National Sample Survey Organization (2005) found in its situation assessment survey that only 48.6 percent farmer households were indebted, of which only 57.7 percent were indebted to institutional agencies. In other words, only 28.04 percent of farmer households were indebted to institutional agencies. And further found that the ‘after nearly 37 years of nationalization and over 15 years of credit targeting for agriculture, in AP and Rajasthan the total debt of the farmer households from all institutional sources put together was less than that from the moneylenders. Further, in Punjab, Assam and Bihar, the total debt of the farmer households from institutional agencies was less than from non-institutional agencies.

Leeladhar (2005) emphasized to provide the banking services to the poor and needy people. The study argued that financial inclusion is very important, because financial inclusion plays an important role to improve the living standard of the poor people and also contribute in economic growth through generating financial resources for financial initiations. On the other hand financial exclusion may lead to increase the incidence of crime in society, decrease the investment in the economy. It also increased the unemployment and informal credit in the country. The study suggested to have a look at the international experience to overcome the financial exclusion and kicked out this problem. The study also suggested that banks would have to evolve specific strategies like bank linkages programme with Self-Help Groups and micro finance institutions to expand the outreach of their services in order to promote financial inclusion.

Mohan (2006) examined the relationship between financial system and economic growth and the role of financial inclusion in increasing the financial depth. The study highlighted that as breadth of financial system increased, it leads to increase in economic growth and financial inclusion. The study found thattotal number of saving accounts is considered to be a better indicator of banking penetration than other deposit accounts. The study revealed that with increasing liberalization and higher economic growth, the role of banking sector is poised to increase in the financing pattern of economic activities in the country. The study also concludes that financial inclusion will strengthen the financial deepening and provide resources to the banks to expend credit in our country, which will help to accelerate economic growth.

Elahi & Rahman (2006) examined the functional and conceptual difference between micro-credit and micro-finance. The main functional difference is that micro-credit programmes provide mainly one kind of service: loan distribution and collection, and the financial and organizational activities associated with such operations, but micro-finance prorammes provide a range of financial and organizational services such as credit, savings, insurance, and community development. It is concluded that micro-credit programmes are usually run by NGOs, non-profit development organizations, but micro-finance programmes seek to generate enough profit to be self-financing.

Dev (2006) focused on issues and challenges of financial inclusion. It is found that 56 percent of indebted farmer households obtained loan from formal financial system and rest of the indebted farmer households obtained credit from informal source of finance. Andhra Pradesh has the highest percentage of financial inclusion (82 per cent of farmer households are indebted), on the other hand, Meghalaya has the lowest percentage of financial inclusion (only 4 percent of farmer households are indebted from formal and informal source). This study suggested that financial institutions should develop financial instruments in such a way so that vulnerable and marginal farmer household may access financial services. It is also suggested apart from this, the role of self-help group movement and MFIs is important to improve financial inclusion of people. Banking system should provide credit plus advisory services to improve the productivity of small and marginal farers and improving the skills of rural no-farm workers.

Kamath (2007) concluded that financial inclusion helps in business activities in high employment generating sectors such as retail trade in foods, beverages and tobacco, wood and textile products, textile, restaurants and hotel retail trade in fuel, utilities and durables. Moreover, he suggested that the Indian agriculture sector is more complex and heterogeneous with a shift from cereals to non-cereals crops and activities such as food processing, livestock and fishing. With this comes the importance of post-harvest activities such as food processing, storage, transportation and eventual marketing. These activities are more complex and risky, involving investment in a new enterprise or adoption of new technology. Therefore, banking system should take more responsibility in changing needs of commercialized agriculture pattern.

Rangappa (2007) attempted to analyze the impactof SHG-Bank linkage programme on the financial inclusion. In order to fulfill the objective, the primary data have been collected by using multi stage stratified random sampling through well-structured schedule on different variables like, demographic profile of the family, borrowing and saving details, involvement in SHGs. Further the study divided the total sample in to two parts one without SHGs and second with SHGs. The study used the chi-square to test the significance of the association between the membership in SHGs and the degree of financial inclusion. After analyzing the data, study found that the SHG-Bank linkages programme has increased the flow of institutional credit to land less and marginal farm household. The study concluded that the SHGs and bank linkage programme increased the degree of financial inclusion between marginal and small farm size category.

Ghosh (2007) tried to examine the role of micro finance in improving the financial inclusion. The study argued that since the opening up of the economy and reforms in the banking sector in India, rural finance is on the back foot. The study examined the problems of formal banking in providing micro credit to the poor of rural and urban areas in the present era and suggested that programs like Post Office Saving Banks (POSBs), SHGs and micro finance can be used to cater the financial needs of rural India.

Swain (2008) attempted to address the gap between financial institutions and vulnerable groups due to higher cost of basic financial services such as bank accounts, credit and insurance and suggested to develop a framework of financial inclusion so that bottom of pyramid masses come in the ambit of affordable formal financial system. The research find out that financial depth is much lower than that of other Asian countries, though it has picked up in the recent past. While there is evidence of an increase in financial deepening, particularly during the present decade, the increase in the breadth and coverage of formal finance has been less than adequate. Deepening the financial system and widening its reach is crucial for both accelerating growth and for equitable distribution.

Sangwan (2008) examined that the branch density has positive andsignificant coefficient with the percentage of adults having saving as well as credit accounts.The coefficient of per capita income was also positive and significant in explainingpercentage of adult having saving accounts, though; this coefficient was not significant withlevel of credit account. Perhaps, more eligibility of targeted sections under various creditsponsored schemes by Central and State Governments from poorer states may have indirectlyinfluenced financial inclusion of in terms of credit accounts. Literacy percentage hassurprisingly negative relationship with both percentage of saving as well as credit accounts ofadults. The variable of percentage of adult covered in SHGs has also positive association with thelevel of financial inclusion especially in credit accounts. The study suggested that SHGs can playsignificant role in achieving the financial inclusion especially for women and low-incomefamilies.

Shetty (2008) examined the impact of microfinance-plus services on the household economy of the members. The results of primary survey found that a majority of the sample households in the pre-microfinance programme were vulnerable to both access the financial and non-financial services. In the post-microfinance intervention, a large number of the member households are able to access the microfinance-plus services and it has enhanced the income, employment, assets, household expenditure, housing condition and empowerment of the poor. Policy recommendation includes delivery of microfinance-plus services to the marginalized and vulnerable poor at a minimum cost will have wider impact on the socioeconomic well-being of the poor. The study suggested that there is need to inject capital in the form of microfinance to generate higher incomes, savings and more investment.

Rangarajan (2008) explained supply- side and demand side barriers that have been recognized as responsible for low level of financial inclusion. Supply side constrains like poor banking infrastructure, low resource base of credit providing institutions, security based lending procedures, lengthy and cumbersome formalities, low level of financial literacy, etc., are still dominant in the sector. Scores of demand side factors such as inadequate human capital, skewed distribution of land including lack of proper land reforms, presence of large section of landless laborers, poor state of physical infrastructure (road, bridges, irrigation structures, market yards, cold storages), underdeveloped social capital (Gram Panchayat, local administration, commodity cooperatives, etc.), low productivity leading to low level of profitability, poor linkages, poor risk mitigation mechanism, etc., in the country have adverse effects on the expansion of coverage institutional credit.

Subharao (2009) delivered a lecture on financial inclusion's challenges and opportunities at Bankers' Club in Kolkata. He also highlighted that why is financial inclusion important, efforts of RBI for financial inclusion and drew a road map to access the financial services through banking outlet. He highlighted the several initiatives that have been taken by RBI to improve the level of financial inclusion among people such as No Frills Accounts, Easier Credit facility, Simpler KYC Norms, Use of Information Technology, EBT through banks, and developed a Business Correspondent Model. He also focused on barriers to access financial services emanating from both demand side and supply side factors. Supply side factors are low volumes, inefficiency of banks, lack of communication, lack of infrastructure, language barriers. There are many demand side barriers such as lack of awareness about financial services and products limited literacy especially financial literacy of the populace, and social exclusion. He concluded that financial inclusion is win-win opportunity for the poor, for the banks and for the nation, because of growing incomes and improving awareness levels, aspirations of the poor are on the rise.

Ramji (2009) has worked on financial inclusion and tried to find out the extent of the outreach of the financial services in Gulbarga district. The empirical section of the study is based on the cross section data. Multi-stage sampling was used to collect the data and it was collected through survey, in-depth interviews. The data analyzed through quantitative techniques. The study found that the numbers of bank accounts were doubled after the introduction of the financial inclusion drive; however 36 percent of the sample respondents remained outside the fold of any kind of formal and semi-formal financial system. The study also found that bank accounts were mainly opened to receive the government assistance, being provided mainly under the National Rural Employment Guarantee Program (NREGP). The study concluded that while government programs likes NREGP has the potential to include large number of people in the mainstream of financial system, but more access to accounts do not often lead to usage of financial services.

Bhandari (2009) discussed reform period that was the worst in terms of the growth in bank accounts. The rural credit has been severely neglected during the reform period and revived in the post reform period, but failed to hold the growth achieved in the pre-reform period. During post reform, period highest growth in bank accounts was observed in metropolitan areas due to the growth in service and manufacturing sector, bypassing the agricultural sector just after the economic reform. In rural areas, high growth in bank accounts was accompanied by reduction in below poverty line population in Kerala, Gujarat, Rajasthan and Haryana. However, in urban areas high growth in bank accounts was accompanied by higher reduction in below poverty line population in Jammu & Kashmir, Andhra Pradesh, Orissa, Madhya Pradesh and Rajasthan. The study suggested that poverty reduction strategy, developing inclusive financial systems should be given priorities, which are financially and socially sustainable.

Ganghaiah & Nagaraja (2009) tried to examine the impact of self-help groups (SHGs) on income and employment SHG members. In order to achieve the objectives, primary data were collected by well structured schedule from 202 group members of 17 SHGs. The observations and findings of the study revealed that selected groups generated awareness among rural women about government development programme and literacy rate among rural women is very low which influences the use of credit for economic wellbeing of women. It is also observed in this study that micro-finance provided by SHGs had a favourable effect on employment and income generation.

Hooda (2010) concluded that the cooperative banks finance rural areas for farming, milk, cattle, hatchery and personal finance whereas in urban areas, they finance for self employment, industries, small scale industries, home finance, consumer finance and also personal finance. It is concluded that cooperative banking has a very extensive network of rural, semi-urban and urban branches. They focus on the local population and micro-banking among low and middle income strata of the society. The cooperative banking has a well established institutional mechanism consisting of different types of cooperative credit institutions to bring all segments of society including the under privileged into financial inclusion.

Rao (2010) argued that financial exclusion is very harmful for the growth of an economy as well as for the society because it leads to social exclusion as well. The results of primary sample survey highlighted that majority of the bankers were aware and knew about the concept of financial inclusion and 61 percent bankers were of the opinion that financial inclusion is profitable, 88 percent bankers suggested that banks should go for financial inclusion in a big way and 65 percent bankers felt that banks should take up financial inclusion as a social obligation. The study also suggested that RBI should conduct awareness camps for the financial inclusion to bank staff and tell them that "Banking to the poor is not poor banking."

Bhatia & Chatterjee (2010) attempted to identify the extent of financial exclusion of the urban poor in slums of Mumbai so that it would yield important clues in understanding the nature and extent of the problem. In this study, four slums those having 40 to 150 households were selected purposively, so that it can cover an almost equal number of families in each o the three regions of Mumbai, namely the eastern, western and southern regions. It is found that only one-third of the respondents had a savings bank account and none of respondents those having bank account had an account with private sector bank. Only 8 percent of non account holders had ever tried opening a bank account. Due to elitist image of banks and unsuitability of their products,remaining slum dwellers had never approach to bank for opening an account with bank. It is concluded that although financial inclusion has become the buzzword in present-day financial circles, there are miles to go before it becomes a reality in the urban population.

Chhikara & Kodan (2011) analyzed the status of financial inclusion in Haryana and compared the status of financial inclusion of the state with overall status in India. The results of the study revealed by using these statistical tools that no significant difference between number of deposit accounts and credit account per 1000 population in Haryana and India. At the same time, the status of deposit account in Haryana is quite better than overall status of deposit account in India, while the status of credit account in India is somehow better as compared to Haryana. The study also revealed that there is no significant difference between population per bank office in Haryana and India. It is also revealed that there is no significant difference between the usages ratio of Haryana and India. The study suggested that the commercial banks should set up the credit counseling centers for advising public on gaining access to financial systems and should also implement low-cost financial products through the generalized use of electronic payment methods in rural areas of Haryana.

Dewan (2011) examined the state of association between the banking outreach and spread of SHGs Bank Linkage Model (SBLM) by using the Karl Pearson Coefficient of Correlation. By using SPSS version 16.0, this is computed as positive correlation of 0.47 between banking outreach and spread of SHGs. It is found that there is wide regional disparity in the spread of SHGs link to bank.

Kannan (2011) concluded that sustainable and broad based economic growth can happen only when low-income households and the small businesses have access to financial services at reasonable costs. There is a huge opportunity to improve the financial well being of hundreds of millions of Indians by offering them access to saving and investment products. The study found that the average Indian is self – employed. Most of the new jobs are typically created by tiny SMEs. These businesses have low access to reliable sources of finance. He suggested for developing the various market models to ensure the appropriate and relevant funding sources for financial support.

Iqbal (2012) argued that microfinance institutions (MFIs) create an effective and efficient mechanism for poor people to absorb the affects of income shocks on consumption, explore safe and affordable repositories for their savings, share advantage of profitable investment potential and opportunities and minimum risk.

Dessai & Dessai (2012) focused on microfinance model in India and recommended that microfinance is best source for credit that provide small loans to small borrowers. It is designed to address the challenges faced by the traditional financial services sector in fulfilling the credit requirement of low segment at affordable and sustainable cost. Microfinance industry has made an impressive growth in India because it is fulfilling a critical need of its target audience, the low-income population, which has so far remained unaddressed by the traditional main stream financial services sector.

Tiwari & Arora (2012) highlighted the declination of Self- Help Groups (SHGs). Researchers conducted a primary survey by conducting group interview method with members of SHGs and NGOs to find the problems and challenges faced by SHGs and NGOs. It is observed that local culture in the village is not so conducive for accepting women joining the groups or activities of the groups. It is found that members of the SHGs preferred to buy a cow or a generator with the borrowed money and rent them out rather than engaging in entrepreneurial activities that could in the long run be converted into a microenterprises. It is also observed that a very few SHGs maintains their records properly in the books of accounts. Many of them though, were updating their records but were not properly detailing them. By holding a group interview with NGOs, it is found that the NGOs were not lacking in initiatives because of lack of resources and man power they were not able to provide the needed support the SHGs.

Dhanya (2012) attempted to look into the extent of financial inclusion and the factors that promotes financial inclusion in Kerala. The analysis of study revealed that Kerala has geographical benefits being a trade centre of India; this unique feature helps it to achieve financial inclusion. Banking penetration in Kerala has been historically high in comparison to other states. The high literacy rate in Kerala has played a major role in bringing people close to the banking channels. The survey’s results show that about 80.3 percent of the respondents were aware of the consequences of non repayment of loan and about 43 percent are aware of the method of filing complaints against banks.

Bajrang (2013) conducted primary survey on Self-help Groups' (SHGs) women to know the level of awareness and accessibility of financial services in Narnaul block in Mahendergarh district (Haryana). The study revealed that the women have a very low level of awareness of financial services. It is also revealed that no single member of SHGs has ATM card, net banking mobile banking. The study concluded that the women have improved their social and financial conditions after joining SHGs.

Laxmi (2013) attempted to understand the impact of microfinance on women empowerment in Tamil Nadu. Available literature was discussed to examine the relation between women empowerment and microfinance institutions. According to available literature, it was found that expansion of microfinance institutions and a significant distribution of small loans and savings to women would contribute to eradicate poverty and economic empowerment of women.

Mahambare & Saletore (2014) concluded that salaried professionals have relatively easier access to credit from for financial institutions because they can easily fulfill the banking norms and condition and required paperwork for granting a credit.

2.5 Role of Financial Institutions in Financial Inclusion

The financial institutions play a vital role in making people financial included. The main objective of financial institutions is to provide banking services at an affordable cost to the poor and weaker section of the society. Dr. Raghuram Rajan said that the products should be designed according to the people's needs like safe place to save, a reliable way to send and receive money, a quick way to borrow in times of need or to escape from the clutches of the money lender, easy to understand accident, life and health insurance and an avenue to engage in saving for the old age. RBI is going to nudge banks to offer a basic suite of products to address financial needs. Nachiket Mor's committee on Comprehensive Financial Services for Small Business and Low Income Households recommended that every person above 18 years will have to be provided with a universal electronic bank account by January 2016. Former State Bank of India chairperson Pratip Chaudhuri expressed his view on the Nachiket More committee report on financial inclusion released on 31st December 2013 that the committee's recommendations would not become a reality as long as banks insist on minimum balances in savings accounts and levy account maintenance charges. He also said first, these things should be abolished, which will incentivize individuals to open a bank account ("No running away from costly banking", 2014).

Dr C. Rangarajan is a renowned economist who has rich experience in the field of financial sector. He has chaired numerous committees which have made far-reaching recommendations but there are few committees without discussion these, literature on financial inclusion remains incomplete such as Committee on Mechanization in the Banking Industry (1984), Committee on Computerization in Banks (1988), Committee on Financial Inclusion (2008) etc. Committee on Mechanization in the Banking Industry (1984) recommended setting up of service branches by banks as well as asking banks to be in readiness for adoption of magnetic ink character recognition (MICR) technology. Committee also recommended for developing the two models of branch automation i.e. Front Office and Back Office. Front office mechanization where front desk operations were computerized while back office work was done manually and back office automation mechanization of general ledger and back office operations while the front office work was done manually. Committee on Computerization in Banks (1988) drew up detailed perspective plan for computerization in banks and for extension of automation to other areas like funds transfer, electronic mail, BANKNET, SWIFT, ATMs etc. The committee recommended inter and intra- bank transactions by using BANKNET and installation of a network of cash dispensers/ATMs. The committee had also made strong recommendations on 'Single Window Concept', 'All Bank Credit Cards', 'Credit Clearing/giro system, Office Automation etc. Committee on Financial inclusion (2008) under the chairmanship of Dr C. Rangarajan studied the entire gamut of issues related to financial inclusion in India. The committee gave a formal definition for financial inclusion, which is stated as "Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost". The committee suggested that financial inclusion must be taken up in a mission mode as a 'Financial Inclusion Plan' at the national level. A 'Financial Inclusion Technology Fund' has been set up at NABARD with a corpus of Rs. 500 crore and the corpus has been increased by another Rs. 10 crore in the budget for 2009-10. The committee suggested targeted branch expansion in identified district, product innovation, incentivizing human resources, expansion of the BC model, support for RRBs, and greater role for NABARD in microfinance. The committee recommended leveraging technology to open up channels beyond branch network and create the required banking footprints to reach the unbanked so as to extend banking services comparable to those dispensed by bank branches.

Jayasheela (2008) made an attempt to study the importance of financial inclusion. The study suggests that banks would have to evolve specific strategies to expand the outreach of their services in order to increase financial inclusion. It also suggests that linkages with micro finance, SHGs and local communities is a cost effective manner to achieve the higher financial inclusion and improving the situation of poor people.

IMF (2010) revealed that financial institutions perform critical functions in financial markets, including credit intermediation, maturity transformation, the provision of savings vehicles, risk management and payments services and the support of primary and secondary funding market functioning.

Bhowmik and Saha (2013) discussed in book on financial inclusion of marginalized street vendors in urban economy that the role of the activities of different financial institutions is to provide financial services to street vendors across various cities. It is also observed that commercial banks deployed business correspondents to cover unbanked rural areas through different modes, opened no-frills accounts and issued Kisan Credit Cards and General Credit Cards under its financial inclusion plan. It is concluded that at present, there are several policies of the government and some initiatives taken by banks and MFIs that provide credit for the urban and rural working poor.

Joshi (2013) highlighted the periodic progress of financial inclusion on quantitative or qualitative parameters. She highlighted some glimpses related to financial inclusion. Banking outlets in villages have increased to nearly 268000 in March 2013 from 67694 outlets in March 2010. About 7400 rural bank branches have been opened during the 3 years Financial Inclusion Programme (FIP) April 2010 to March 2013. Approximately

109 million Basic Savings Bank Deposit Accounts (BSBDAs) have been added. It is found by comparing with the manifold increase in the number of banking outlets and the number of accounts that transaction through ICT based BC outlets is very low. She addressed that RBI has played a proactive role the rollout of the Direct Benefit Transfer (DBT) scheme.

Chakrabarty (2013) introduced the RBI's approach towards financial inclusion in his speech, which was delivered at Financial Inclusion Conclave organized by CNBC TV18 at New Delhi on September 6, 2013. RBI advises to adopt innovative business models and delivery channel to expand their financial inclusion efforts. He highlighted that RBI has been playing a supportive role in financial inclusion by creating conducive regulatory environment and providing institutional support to bank in their financial inclusion efforts. He also focused in his speech on RBI's policy to foster financial inclusion such as branch expansion in rural area and agent banking like Business Facilitator/Business Correspondence Model, combination of branch and BC Structure to deliver financial inclusion, relaxation in KYC Norms, roadmap for banking services in unbanked villages, and financial inclusion plan of banks etc.

Gowda & Nadeesha, (2013)analyzed the role of banks in achieving financial inclusion in Mysore district. Three dimensions of financial inclusion discussed in this paper are banking penetration, affordability of financial services and convenience to banking services. It is found by conducting the primary survey of 100 samples that the usage of banking technology like ATM card is very poor in this district.

Bhaskar (2013) focused on initiatives taken by RBI i.e. Basic Saving Bank Deposit account, simplified KYC norms, simplified bank branch authorization policy, compulsory requirement of opening branches in un-banked area, opening of intermediate brick and mortar structure, guidelines for financial inclusion plans (FIPs) etc. It is stated that no permission is required by schedule commercial banks for opening branch in northeast states. Banks are directed by RBI to open branches at least 25 percent in rural area or un-banked area.

Sarma (2013) found out in her research study that the number of urban and metropolitan branches of regional rural banks has increased over the years, while rural branches have declined. Rural India is much more financially excluded today than in the 1990s. Between 1992 to 2009, there was a 22 percentage decline in the proportion of rural bank branches of RRBs while there was a 16 percentage increase in the share of their non rural branches. Thus the creation of localized rural banks as a means for tackling the lack of familiarity of rural problems on the part of mainstream commercial banks does seem to have served its purpose. The existing banks must be made more gender friendly and gender sensitive to encourage women participation in banking.

Annual Report, Ministry of Finance (2014) revealed that financial inclusion is an important priority of Government of India. The government has taken many initiatives from time to time to foster the financial inclusion. About 7840 public sector bank branches have been opened during 2013-14 as compared to 4432 branches in 2012-13. The total number of ATMs has been increased to 96853 as on 31.01.2014. RBI has played pivotal role in institution credit delivery network in rural areas, particularly to the agriculture sector. Department of Financial Services (DFS) has advised to extend banking services to all part of the country.

2.6 Role of Technology in Financial Inclusion

The ICT plays an important role in making banking services available to poorest of the poor people. The RBI has set up an Advisory Group for IT enabled financial inclusion to facilitate development of information technology solutions for delivery of banking services. This group will prescribe certain minimum parameters and standards which are essential for setting up robust technology solution.

NCR (2009) explained different types of technology solutions for financial inclusion such as conventional solutions and self services solutions. Business correspondent model is a conventional solution that delivers financial services to the underserved population through a human banking agent support by technology like smart card, biometric reader, mobile phones. Self service technology solutions includes Automated Teller Machine (ATM), mobile phone application etc.

UK Trade and Investment (2009) concluded that technology is key enabler to increase the financial inclusion to poorest of the poor. ICT system helps to reduce the financial and administrative burden of processing loan applications and help for availing consistently banking services.

Report of the expert committee on Harnessing the India Post network for Financial Inclusion (2010) recommended that India Post should request the addition of financial inclusion project in to the terms of reference of the recently announced Technology

Advisory Group for Unique Projects. The leadership team of the India Post financial inclusion project should engage in the work of this technology group, so as to bring in the best practices for project management so that it can bring together a number of stakeholders on common platform: central and state governments, microfinance institutions, technology providers and most important individual citizens who are financially excluded.

Gupta (2011) observed the information technology as enabler of financial inclusion. This paper outlines major steps which have been taken so far by the RBI and Government of India to enable financial inclusion for weaker sections of Indian society. Researcher discussed technological development in banking like Point of Sale, RTGS, NEFT, Pre-paid Payment Systems, electronic clearance service etc.

Kumar L., Balasubramanian G., & Subramanian R. (2012) observed that technology is considered as an enabler to reduce cost substantially and reach out to the unbanked in the most effective manner. Technology has been used to create “branchless banks” through mobile banking, automated teller machines (ATM) Point of sale network etc.

The Report of the Committee on Financial Inclusion (2013) has recommended the setting up of a technology development fund. The central budget has also made a provision for this fund that can be utilized to strengthen the technology base for financial inclusion.

Joshi (2013) highlighted glimpse of ICT based financial inclusion in her lecture that about 490 million transactions have been carried out in ICT- based accounts through BCs during the three year period of FIP April, 2010 to March, 2013, although transaction through ICT based BC outlets are very low when it is compared with the manifold increase in the number of banking outlets and the number of accounts.

Khan Harun K. (2013) observed that technology holds the key to providing models for efficient delivery of small value transactions in large volumes while reaping economies of scale. The implementation of such effective, scalable and platform independent technology will help drive down the cost of providing banking services to the poor. Further, technology helps in spreading financial literacy both as a delivery channel and as an intrinsic part of the learning process.

Abhishek (2013) focused factor that financial inclusion of the economically backward classes and unorganised sector of rural and urban areas can only be possible with the effective implementation of technology.

Bansal S. (2014) analyzed the various applications of information communication technology (ICT) which are adopted by financial institutions. ICT acts as a bridge between last mile customers and service providers for achieving financial inclusion. It helps financial institutions to reduce their front end and back end cost significantly.

Sanwan (2014) analyzed the importance of direct benefit transfer (DBT) scheme in financial inclusion. Research survey was conducted to find out the progress of implementation of DBT in selected two villages of Fatehgarh Sahib district in Punjab. It was found that only 14 percent of the households up to September 2013 took benefits of DBT through banks, and 80 percent of them were working in MNREGA. Other benefits like scholarship of students, old age pension and LPG subsidy was not received in the bank accounts. Therefore, state and central government must take serious effort to implement the DBT through using bank account.

The Technical Committee on Mobile Banking (2014) recommended for the effective and efficient implementation of providing mobile banking facilities to the customers it is imperative that the banks staff is well versed and thoroughly trained in various aspect of the mobile banking.

"Banking's Year of Technology", (2014) expressed the information technology interventions, banking customers can now say goodbye to the tedious task of standing in serpentine queues in banks for routine transactions like cash deposits, passbook updation, cheque deposits, cheque book requests, pin change etc.

2.7 Role of Post Office Saving Banks (POSBs) in Financial Inclusion

A formal account with post office and other financial institutions provides individual with a safe place to save and create a reliable payment channel to transact with family members, employer, business units or the government. The account opening is often the first step toward inclusion in formal financial system. It is found by review of the literature that the post office saving bank plays leading role in advancing the financial inclusion.

Ghosh (2007) examined the problems of formal banking in providing micro credit to the poor of rural and urban areas in the present era. The research work suggests that programs like Post Office Saving Banks (POSBs), SHGs and micro finance can be used to cater the financial needs of rural India.

Report of The Expert Committee on Harnessing the India Post Network for Financial Inclusion (2010) examined the role of postal network in financial inclusion in the context of presently unmet demand for financial service, the core strengths and capabilities of India Post, as well of the emerging policy, regulatory and business environment in this area. This report presented a unified approach for India Post in delivering credit to needy persons because India Post does not yet deliver credit. This committee report recommended that India Post should deliver lightweight, low cost bank accounts to all citizens of India and especially to the financially excluded people.

Malakar (2013) said that financial inclusion is assumed to be one of the key drivers of or inclusive society and inclusive economy. For enhancing financial inclusion, Indian post offices also provides financial services to all section of the society since 1882. The Indian post served Indian villagers as banker much before financial inclusion become the buzzword and Indian post claims to be the poineer of financial inclusion in india. The study approached that Indian post can give a new dimension to the process of financial inclusion by establishing the Post Bank of India.Establishment of post bank of india may be another strong decision to associate Indian post in financial inclusion

Anson, Berthaud, Klapper, & Singer, (2013) analyzed the ownership pattern at post offices in comparison with traditional financial institutions by using the Global Financial Inclusion indicators (Global Findex) database. The working paper revealed that post offices are more likely than traditional financial institutions to provide account to individual who are mainly from financially vulnerable groups, such as poor, less educated, and labor force. The results suggests that post office can boost account ownership by acting as cash merchants for transactional financial services such as electronic governance and remittance payments and the partnership between post office and other financial institutions coincide with higher bank account penetration.

2.8 Measuring Financial Inclusion

The Government of India along with Research Bank of India (RBI) is putting their efforts extend the financial inclusion to door step unbanked people who have huge potential for achieving 12^{th} Five Years Plan (2012-17) aims i.e. "faster, sustainable and more inclusive growth. Few benchmark research studies have been conducted by governments or research organizations, eminent scholars i.e. Mandira Sarma, CRISIL, RBI, World Bank, IMF etc.

Sarma (2008) attempted to prepare the first ever Index of Financial Inclusion (IFI) to find out the reach of banking services in 100 countries of the world. IFI as a multi-dimensional index captures information on various dimensions of financial inclusion in one single digit lying between zero and one. The proposed index is said to be easy to compute and is comparable across the countries. In the index of financial inclusion, three basic dimensions of an inclusive system were considered: banking penetration (BP), availability of the banking services (BS) and usage of the banking system (B.U). On the basis of a composite index on these three dimensions, India has been ranked poorly, even below African countries such as Kenya and Morocco. According to the index, India has been placed at the 50^{th} place, much above Russia but below China.

Sarma (2008) measured the financial inclusion by developing the index of financial inclusion in states of India. The methodology of construction of index of financial inclusion is adopted on the -basis of United Nations Development Programme (UNDP) methodology for development of human development index (HDI). The results of empirical analysis show that the state of Punjab has 1st rank in financial inclusion with value of 0.0754 and 2^{nd} rank in HDI. On the other hand, Assam is having last position in IFI, and 14^{th} in HDI. The coefficient of correlation between financial inclusion and HDI is 0.911 and it is statistically significant at 0.01 percent level. The study has revealed that financial inclusion and overall development index and economic development indicator per capita NSDP are positively and significantly related. The study also revealed that per capita NSDP and urbanization can predict the financial inclusion, but employment rate, sex ratio, and literacy can not predict the financial inclusion.

Chakravarty (2010) made clear approach to measure the financial inclusion. The study focused on following six attributes of financial inclusion; demographic penetration, geographic penetration, and number of deposit accounts, number of credit accounts, deposits- income ratio and credit- income ratio. The study found that all six parameters are positively correlated and the correlation coefficients are all significant at five percent level. By comparing the computed financial index for 1991 and 2001, it was found that the levels of financial inclusion in India have declined from the year 1991 to 2001.

Kuri & Laha (2011) developed the index of financial inclusion (IFI) and index of human development (HDI) by normalized the euclidean distance of the dimension indices from their ideal values. Three dimensions have been selected for developing the IFI such as banking penetration, availability of banking services, and usages of banking system. The HDI has been construct by taking three dimensions such decent standard of living, a long and healthy life, and knowledge. The empirical findings of the study suggest that only three states such Chandigarh, delhi and Goa are classified as high IFI states. While other ten state qualified the criteria of medium level of financial inclusion and all other states have the status of low level of financial inclusion. The study sugggests that the level of financial inclusion and human development are positively correlated.

Chattopadhyay (2011) measured the outreach of banking sector and socio-economic indicators like occupation, literacy, land holding pattern in rural area, rural indebtedness and people's opinion about banking services in West Bengal. The index of financial inclusion (IFI) was constructed by using index methodology similar to developed by Mandira Sharma. The study revealed that Kolkata district leads with highest value of IFI followed by Darjeeling. Only one district (KolKata) belongs to the high IFI group with IFI value of 0.5 or more and the rest of districts belong to the low level of financial inclusion. The study suggests that state has to go a long way in achieving financial inclusion. In order to get a comparable picture, state wise IFI has also been constructed ad found that Kerala has highest rank in financial inclusion followed by Maharashtra and Karnataka.

Demirguc-Kunt & Klapper (2012) provided the first analysis of Global Findex database. The Global Findex indicators measured the use of financial services, which is distinct from access to financial services. This paper focused on three set of indicators, such as formal account penetration, saving behavor, and sources of borrowing. The Global Findex indicators are drawn from survey data by covering 150000 adults in 148 countries across the world. The data show that 50 percent of adults worldwide have an account at financial institutions. In addition, 22 percent of adults report having saved at a formal financial institution in the past 12 months and 9 percent of them report having taken out a new loan from bank, credit union or microfinance institution in the past year.

The study reported some barriers of remain unbanked such as high cost, physical distance, and lack of proper documentations.

Sarma (2012) recommended that the index of financial inclusion should be simple and easy to compute, have meaningful bounds (say0 to 1), represent true situation as far as possible, and it should monotonicity (higher value indicating higher level of financial inclusion).

CRISIL Inclusix (2013) provides the bird's eye view of the state of financial inclusion in the country. CRISIL Inclusix is an analogous to other well known global indices such as UNDP Human Development Index and World Bank's ease of doing business index, and Economic Intelligence Unit's Quality of Life Index. This index presents a unique robust analytical tool that comprehensively measures financial inclusion based on three tangible and critical dimension such as branch penetration, credit penetration, and deposit penetration. CRISIL Inclusix interpretated the level of financial inclusion in term of high level, above average, below average, low level. The top level scoring states are Puducherry, Chandigarh, Kerala, Goa, and Delhi. The bottom level five states are Arunachal Pradesh, Chhattisgarh, Bihar, Nagaland and Manipur.

Amdzic, Massara, & Mialou (2014) used the factor analysis to identify the financial inclusion dimension and assigned weight. Four dimensions have been used to derive the composite index such as number of ATMs per 1000 square kelometers, number of branches ODCs per 1000 square kelometers, total number of resident households depositors with ODCs per 1000 adults, and total number of resident households borrowers with ODCs per 1000 adults. The composite index of financial inclusion is developed from a non-linear agregation of intermediate dimensional indicators and is subsquenctly used to rank the various countries.

Government of India set the target of faster and more inclusive sustainable growth for twelfth five year plan. Now the issue of financial inclusion has attracted everybody such as policy makers, bankers, central bank, NGOs, academicians etc. Plenty of literature is available in India and other parts of the world on various aspects of inclusion such as role of financial development in economic growth, extent of financial inclusion, financial deepening and growth, barriers to financial inclusion, role of microfinance and SHGs, development of indices for measuring financial inclusion etc. There are many notable research studies such as Global Findex (2012), Demirguc & Klapper (2012), CRISIL Inclusix (2013), Sarma (2008), Chattopadhyay (2011), Chakrabarthy (2014) UNDP report on Financial literacy etc. These studies provide wonderful understanding about critical aspects of financial inclusion. But it is observed that there is hardly any study on financial inclusion which focuses on rural households and its nuances in the state of Haryana. This research work is motivated by the sensitivity of the researcher towards the issues of marginalized sections and vulnerable groups of the society who are residing in rural areas of Haryana with limited access to financial services and financial literacy. The present research on ‘Financial Inclusion’ has been conducted to fill this gap keeping in mind the rural households who have huge potential for economic growth and development.