EFFECTIVENESS OF FINANCIAL INCLUSION PROGRAMME IN KERALA

Thesis submitted to

Cochin University of Science and Technology

for the award of the Degree of

Doctor of Philosophy

under

The Faculty of Social Sciences

by

Raihanath M.P.

Under the Guidance of

Dr. K. B. Pavithran

School of Management Studies
Cochin University of Science and Technology
Kochi – 682022

MAY 2019

Effectiveness of Financial Inclusion Programme in Kerala

Ph. D Thesis under the Faculty of Social Sciences

Author

Raihanath M.P.
School of Management Studies
Cochin University of Science and Technology
Cochin - 682 022, Kerala, India
email: raihanath.safi@gmail.com

Supervising Guide
Dr. K. B. Pavithran
Professor (Retired),
School of Management Studies
Cochin University of Science and Technology
Cochin - 682 022, Kerala, India
email: dr.k.b.pavithran@gmail.com

School of Management Studies
Cochin University of Science and Technology
Kochi - 682 022

May 2019

Certificate

This is to certify that thesis entitled **"**EFFECTIVENESS OF FINANCIAL INCLUSION PROGRAMME IN KERALA" is a record of bonafide research work done by Ms. Raihanath M.P., part-time research scholar, under my supervision and guidance.

The thesis is the outcome of her original work and has not formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title and is worth submitting for the award of the degree of Doctor of Philosophy under the Faculty of Social Sciences of Cochin University of Science and Technology. All the relevant corrections and modifications suggested by the audience during the pre-synopsis seminar and recommended by the Doctoral committee have been incorporated in the thesis

Dr. K. B. Pavithran

Research Guide

Declaration

I hereby declare that this thesis entitled **"EFFECTIVENESS OF FINANCIAL INCLUSION PROGRAMME IN KERALA"** is a record of the bonafide research work done by me and that it has not previously formed the basis for the award of any degree, diploma, associateship, fellowship, or any other title of recognition.

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Date: 29/05/2019

Raihanath M.P.

Acknowledgement

At the outset I bow to my ALMIGHTY for providing me his choicest blessings to complete this work properly and also for guiding me in all walks of my life.

This research has been made possible by the encouragement, guidance, prayers and support of many well-wishers. I take this opportunity to acknowledge their support to this study.

I am deeply indebted and express my sincere gratitude to my supervising guide ***Prof.(Dr).K.B Pavithran,*** Professor(Retd.), School of Management Studies, Cochin University of Science and Technology, Cochin, who made possible me to initiate, pursue and complete the study. His constant guidance and encouragement have been largely responsible for my pursuit of investigation reported here in.

I take this opportunity to express my sincere gratitude to ***Prof. (Dr). D. Mavoothu,*** Professor and Director, School of Management Studies, Cochin University of Science and Technology, Cochin, for his valuable suggestions and constant inspirations.

I am thankful to ***Dr. S. Rajitha Kumar***, Professor, School of Management Studies, Cochin University of Science and Technology, Cochin, for his incessant support and encouragement extended to me during the completion of my work and also *for being my Doctoral Committee Member and giving me necessary advices for the completion of this study.*

My special thanks to *Prof. (Dr). Moli P Koshi*, Professor, School of Management Studies, Cochin University of Science and Technology, Cochin, for her encouragement in doing my thesis work.

I express my gratitude to all the faculty members of SMS: Prof. (Dr.) Sebatian Rupert Mampilly, Prof. (Dr.) James Manalel, Dr. V. P. Jagathy Raj, Dr. K. Krishnan Namboothiri, Dr. Sam Thomas, Dr. K. A. Zakkaria, Dr. Manoj Edward, Dr. Mohammed Aslam, Dr. Sreejesh S, Dr. Santhosh Kumar, Dr. Sangeetha, Dr. Manu Melwin Joy, and Dr. Devi Soumyaja for giving me valuable support and suggestions in completing this study.

I am obliged to express my gratitude to all teachers in the *PG Department of Commerce, PRNSS College, Mattanur, Kannur,* for giving me the valuable suggestions and encouragement. I wish to express my gratitude to all members of the Office of Lead Bank (Syndicate), Kannur, especially to Lead District Manager *Jayaram.*

I also extend my hearty thanks to all of the *library and office staff* of School of Management Studies, Cochin University of Science and Technology, Cochin, and Central Library for providing related books and articles.

I also extend my gratitude to *my* ***husband Abdul Kalam P, daughters (Fathwima and Aifa), parents*** **(Safiya & Aboobacker), siblings and other** ***family members*** whose prayers are always my encouragement.

Last, but not least I express my sincere thanks to all my *friends those who gave their extended support and* for their co-operation.

Raihanath M.P

Abstract

Financial inclusion is a great step to alleviate poverty in India as the core function of the programme is accessing credit. In India, two states (Kerala and Goa) and three union territories were declared as hundred percent financially included on 14th November 2014 by the government of India. Kerala has highest account penetration in India as per account opening. In narrow approach, financial inclusion can be happen when a person opens an account in the formal financial sector. Where as in broader sense, it happens only when the beneficiaries have upliftment from their level of economic status through income generation, additional employment generation and asset creation. It is in this situation felt necessary to check to what extend the programme achieved its overall objective of going beyond mere figures. Thus present study focuses on the effectiveness of financial inclusion programme from both sides. That is, from supply side (banks or service providers) as well as demand side (beneficiaries of Financial Inclusions Programme).

Statement of the Problem:

Majority of the research in the area of financial inclusion is focusing on the problems of individuals who are excluded and finding measures for reaching to them. Latest initiative or finding as part of the programme is opening of accounts in the name 'Jan-Dhan Yojana'. However, most of the efforts from the government and Banks have been in the direction of opening of accounts, which is only a technical step in the process of financial inclusion. There were only few attempts of comprehensive studies done to look at the financial inclusion process and to what extend it is achieving its overall objectives going beyond mere figures. Thus it is very necessary to check the supply side as well as demand side effectiveness of financial inclusion programme i.e., whether the financially included poor get the benefits through the scheme. Therefore present study gives more stress on the effectiveness of financial inclusion programme, which is measured using financial inclusion index as well as through developing a model based on the perception of the beneficiaries of the programme.

Objectives

Based on the conceptual focus highlighted in the earlier sections, this study proceeds to inquire into the following set of objectives and test the hypothesis framed as under

1. To understand the factors associated with Banking policies, Practices and implementation of Financial Inclusion Programmes (FIP).
2. To study the extent of accessibility, availability and usage of formal financial services (as part of FIP) by the beneficiaries- Supply side view.
3. To study the factors associated with the beneficiaries in making use of the financial services to meet their specific needs.
4. To study the effectiveness of Financial inclusion Programme in the holistic approach- Demand side Perspectives.
5. To make broad suggestions to improve financial inclusion programme in Kerala.

Research Hypothesis:

H1: There exists a significant relationship between accessibility and usage

H2: There exists a significant improvement in the income of the beneficiaries due to credit support of the scheme

H3: There exists a significant improvement in the asset position of the beneficiaries due to credit support of the scheme

H4: There exists a significant improvement in the self-employment of the beneficiaries due to credit support of the scheme

H5: there exists a significant interaction effect of financial literacy between accessibility and financial literacy.

Research Design:

The present research has employed both descriptive and explanatory methods in the study.

Unit of observation: Individual beneficiaries of Financial Inclusion programme, which constitutes those who had account (credit accessed) in the formal financial sector as part of financial inclusion programme.

Sample size

Three hundred beneficiaries of financial inclusion programme.

Tools for Data Collection:

Interview Schedule was used as a tool for collecting primary data.

Data Analysis:

Financial Inclusion Index was used to measure the effectiveness of financial inclusion programme. MS Excel, SPSS & Warp PLS software were also used for analysing primary data.

Review of literature:

A comprehensive review of literature pertaining to the research work were done. The major constructs for measuring effectiveness of Financial Inclusion Programme namely; accessibility, availability, usage, financial literacy, asset creation; income generation and employment opportunity in relation with financial inclusion programme which are relevant to the study were extracted through the literature survey. Based on the literature survey, the model were developed and the model became a major contribution to the existing theory of Financial Inclusion Programme.

Effectiveness of Financial Inclusion Programme (FIP):

I. **Effectiveness of financial inclusion from the supply side** were studied using Financial Inclusion Index (FII). Formula for calculating FII is as follows:

$$FII = 1/n \times \sum_{i=1}^{n} zi$$

From supply side, there are three dimensions namely, accessibility, availability and usage.

II. Effectiveness of Financial Inclusion Programme(FIP) from demand side:

Effectiveness of financial inclusion programme using the FII from supply side provides average figures only, because of practical constraints of getting individual's or beneficiaries' actual figures related with their savings and deposits. Therefore for studying effectiveness of FIP from demand side, developed a conceptual framework based on the perception of beneficiaries. And the model is tested and validated using Warp PLS.

Major Findings of the Study:

1. The banks in Kerala performs functions like providing financial literacy and credit counselling, opening up of 'No-Frills' account or Basic Savings Bank Deposits Accounts (BSBDAs), introduced branch expansion strategies, Kisan Credit Cards /General Credit Cards (KCC/GCC), other micro credits and mobile banking, micro insurance & small pensions as part of FIP.

2. The reasons for choosing formal financial services over informal financial services by the respondents were cost effectiveness, problem handling and compensation, easy to use and convenience, operational efficiency, speed of service, proper sanctioning of loans, better customer service & efficiency and responsiveness. (Rank preference)

3. The proposed model was found to have a good fit and the moderating variable financial literacy was found to be significant.

4. The programme is found effective in Kerala, from the holistic approach of Financial Inclusion Programme.

5. As the policies and programmes of financial inclusion are same all over India, some plans like introduction of Business Correspondent model, simplifying KYC norms were not working in Kerala. Therefore, the policy should be flexible based on the economic situation, culture, and systems and beliefs prevailing in each States of India.

Practical and theoretical implication:

1. The study takes into consideration the broader approach of financial inclusion programme, (economic impact) which recently attracted considerable attention from public authorities, financial sector stakeholders and academia, to reduce or eliminate

the inefficiencies surrounding the conduct of specific types of financial transactions, and to increase the efficiency of financial inclusion programme.

2. Information about the effectiveness of financial inclusion programme on economic growth will influence the priority that policy makers and advisors attach to reframing financial inclusion policies.

3. Academicians can consider the study findings for their future studies connecting financial literacy as a moderator for the access and use of financial inclusion.

4. The study has also analysed various determinants to choose formal financial services (mainly for credit accessing) of individual beneficiaries. Thus, the study will be useful for the practitioners for reducing cumbersome procedures of borrowings

5. The supply side of FIP was also analysed, and reported the practical difficulties of implementing BC/BF model in Kerala. Thus the policy makers can reframe the said programmes with suitable instances to the Kerala economy.

6. The model developed and validated can be added in the theory of FIP, to provide a less perspective environment in which banks are free to pursue the innovations necessary to reach low income consumers and still make a profit.

Conclusion:

Banking sector has become a major target market for the poor and weaker sections of the society. In olden days, it was the platform for the upper sections of the society only. The study has identified determinants in accessing and using formal financial services as part of the Financial Inclusion Programme and their hindrances in reaching to the milestone, in the Kerala context. The effectiveness of Financial Inclusion Programme can be fully achieved through the synergy of banks, government and also the community. Financial Literacy acts as an interference to the accessibility and usage variable provided. Increased levels of financial literacy positively (increase the usage perceptions) moderated the path of accessibility perception and usage perception.

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LIST OF ABBREVIATIONS

AIRC	All-India Rural Credit Survey.
ATM	Automated Teller Machine.
ATISG	Access through Innovation Subgroup.
AVE	Average Variance Extracted.
AVIF	Average Variance Inflation Factor.
AWEK	Association of Women Entrepreneurs.
BBA	Basic Bank Account.
BC	Business Correspondent.
BF	Business Facilitator.
BSNL	Bharat Sanchar Nigam Limited.
CDS	Centre for development of Society.
CET	Common Entrance Test.
CFA	Confirmatory Factor Analysis.
CFI	Committee on Financial Inclusion.
CMIE	Centre for Monitoring Indian Economy.
CRM	Customer Relationship Management.
DCB &SCB	Douglas County Bank and Standard Chartered Bank.
DIC	District Industrial Centers.
EFA	Exploratory Factor Analysis.
FKCCI	Federation of Karnataka chamber of commerce & Industries.
FICC	Federation of Indian Chamber of Commerce and Industry.
FIP	Financial Inclusion Programme.
FII	Financial Inclusion Index.
FSB	Financial Stability Board.
GCC	General Credit Card.
GoI	Government of India.
GPFI	Global Partnership for Financial Inclusion.
IT	Information Technology.
IVR	Interactive Voice Response.
KCC	Kisan Credit Card.
KSFC	Karnataka State Finance Corporation.

KSIIDC	Karnataka State Industrial Investment and Development Corporation Ltd.
KFC	Kerala Financial Corporation.
KVIC	Khadi & village industries commission.
LIC	Life Insurance Company of India.
LUC	Laghu Udyami Card.
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act.
MGNREGP	Mahatma Gandhi National Rural Employment Guarantee Programme.
m-Banking	mobile Banking.
MFI	Micro Finance Institution.
MSME	Micro- Small and Medium Enterprises.
NABARD	National Bank for Agriculture and Rural Development.
NGO	Non-Governmental Organisations.
NEFT	National Electronic Fund Transfor.
NFS	Non- Farm Sector.
NMGB	North Malabar Gramin Bank.
NSD	New Service Development.
OPS	Other Priority Sector.
p.a.	per annum.
PAN	Permanent Account Number.
PIN	Personal Identification Number.
PLDB	Primary Land Development Bank.
PMEGP	Prime Ministers Employment Generation Programme.
PMRY	Prime Ministers Rozgar Yojana.
REGP	Rural Employment Generation Programme.
PSA	Priority Sector Advance.
PSB	Public Sector Banks.
RBI	Reserve Bank of India.
RDA/C	Recurring Deposit Account.
RTGS	Real Time Gross Settlement.
SB A/C	Savings Bank Account.
SBI	State Bank of Travancore.

SC/ ST	Scheduled Caste /Scheduled Tribe.
SEM	Structural Equation Modelling.
SHG	Self-Help Group.
SGSY	Swarna Jayanthi Gram Swarozgar Yojana.
SJSRY	Swarna Jayanti Shahahri Rozgar Yojana.
SLBC	State Level Bankers Committee.
SIDBI	Small industrial development Bank.
SME	Small and Medium Enterprises.
SMS	Short Message Service.
SSIs	Small Scale Industries.
SSRN	Social Science Research Network.
TAM	Technology Acceptance Model.
TRAI	Telecommunication Regulatory Authority of India.
UK	United Kingdom.
UIDAI	Unique Identification Authority of India.
ULG	Urban Local Governments.
UN	United Nations.
USEP	Urban Self-Employment Programme .
UWSP	Urban Women's Self–Help Programme.

Chapter I Introduction

This chapter deals with background of financial inclusion programme, the concept of financial inclusion programme and its evolution, objectives of financial inclusion programme and its definitions, origin & elements, progress of financial inclusion programme in India &institutional framework, significance of the study, theoretical background and organization of the study,

1.1 Banks and Financial Inclusion

It is time that banks took a comprehensive view of inclusion strategy and all its elements from customers to products to technology, and arrived at an optimal mix to drive their agenda in the future. The initiatives of 'financial inclusion' was undertaken to multiply the outreach of banking facilities and increase the flow of credit to rural areas. Numerous initiatives have taken over time such as nationalization of banks, prescription of priority sector targets, lending to weaker sections at concessional rates and initiation of lead bank schemes. Financial inclusion programs could no doubt offer banks an innovative means of market expansion, customer diversity management and mass-market life-style enablement. "Financial inclusion programmes should be implemented on commercial lines and not on a charity basis. It is important that banking with the poor is perceived and pursued as a sustainable and viable business model. While poor need not be subsidised, it is important to ensure that they are not exploited. The need is to ensure that poor people who deserve credit are provided access to timely and adequate credit in a non-exploitative manner" (Chakrabarthy, 2012). Financial inclusion has two aspects, one as a welfare aspect and the other as a business strategy of Banks. Financial inclusion is "*the process of ensuring access to financial services and timely and adequate credit where needed by the vulnerable groups such as weaker sections*

and low income groups at an affordable cost" ***(Government of India****,* 2008). The above definition focuses on the welfare aspect of weaker sections. As far as Banks are concerned it is possible only if the Government take initiative. Otherwise financial inclusion will be a paper work.

Over two million adults around the globe do not have an access to formal or semi- formal financial services. Of this, 90 per cent live in Africa, Latin America, Asia and the Middle East. *It is already becoming more and more clear that, access to a broader set of financial tools, such as savings products, payment services (domestic and through international remittances) and insurance (which also includes micro insurance aimed at the needs of the poor) gives poor people greater capability to increase or stabilize their income, build assets and become more economic shock-proof. (World Bank, 2012)*

Financial inclusion is not a matter of philosophy but can lead to a win-win situation for the banks and the customers. ***United Nation***s define financial inclusion as "a financial sector that provides access for credit for all bankable people and firms and saving and payment services to everyone. Inclusive finance does not require that everyone is eligible to use each of services but they should be able to choose them if desired". This definition focuses on the business strategy of Banks.

A Nationwide initiative of National Bank for Agriculture and Rural Development (NABARD) namely, SHG-Bank linkage programme made vast coverage of formal financial services to the unbanked rural poor. Thus the programme paved way for a rapid inclusion in India as far as other programmes are considered.

Financial inclusion has become a buzzword internationally – even in developed financial markets there are concerns about those excluded from the banking system. The barriers to access to formal banking system have been identified as relating to *culture, education (especially financial literacy), gender, income and assets, proof of identity, remoteness of residence,* and so on. Efforts are being made by the authorities- especially banking regulators to improve access to affordable financial services through financial

education, leveraging technology, and generating awareness. ***Raghuram Committee*** on *Financial Sector Reforms (CFSR)* defined financial inclusion as **"**Expanding access to financial services, such as payments services, savings products, insurance products, and inflation-protected pensions.**"** This definition also focuses on the business strategy of the Banks.

Financial Inclusion is an opportunity to Banks for increasing their business. Kerala is rapidly becoming the most preferred investment destination of the world (Kerala Calling, 2013).

Majority of the researches are taking place in financial exclusion and its causes, supply side of financial inclusion etc. Whether the included people have any growth or the policy still in paper, had only few attempts. Thus the present study focuses on the demand side as well as supply side of financial inclusion with respect to effectiveness of the programme.

I.2. History of Financial Inclusion (Evolution of Commercial Banks):

The term financial inclusion is coined by Dr. Usha Thorat in India, during the annual meeting of RBI. She was then the deputy governor of RBI. Before that many developed countries were adopted the programme wholly or partly. A snap short of the history of financial inclusion is as follows;

1) 1950-70: Consolidation of the banking sector and facilitation of Industry and Trade
2) 1970-90: Focus on channelling of credit to neglected sectors and weaker sections.
3) 1990-2005: Focus on strengthening the financial institutions as part of financial sector reforms.
4) 2005 onwards: Financial Inclusion was explicitly made as a policy objective.

The foundation for building a broad base of agricultural credit structure was laid by the Report of the All-India Rural Credit Survey (AIRCS) of 1954. The provision of

cultivator credit in 1951-52 was less than one per cent for commercial banks. It was observed that agricultural credit fell short of the right quantity, was not of the right type, did not fit the right purpose and often failed to go to the right people. With a view to give an impetus to commercial banks, particularly, in the sphere of investment credit, the nationalization of the Imperial Bank of India and its re-designation as the State Bank of India (SBI) was recommended.

I.2. 1 Growth in Outreach 1951-91

From the position prevalent in 1951-52, Commercial Banks came a long way with a substantial spread of thirty two thousand two hundred and twenty four branches in rural and semi-urban areas comprising 68 per cent of their total outlets as on 31st March 1991. The outstanding deposits of such branches at sixty seven thousand eight hundred and fifty five crore rupees as on the same date constituted around 35 per cent of their total deposits, while loans outstanding at forty three thousand seven hundred and ninety seven crore rupees comprised 36 percent of outstanding credit. The agricultural advances of the commercial banking system aggregated sixteen thousand six hundred and eighty seven crore rupees and constituted 14 percent of total advances in March 1991.

I.2. 2 Growth during 1991-92 to 2003-04

After new economic policies of 1991, has seen a fairly rapid increase of credit to agriculture. Available data indicate that the flow of credit to agriculture by commercial banks and RRBs taken together increased to sixty thousand twenty two crore rupees in 2003-04. This implies a compounded annual growth rate of 22.2 per cent. In reality, as compared with commercial banks (including RRBs); the flow of credit from the cooperative sector was much slower through this period. The compounded annual growth rate of credit for agriculture from cooperative institutions was only 13.7 per cent. Further, the proportion of agriculture credit to total credit came down because of the rapid growth in non-agriculture credit.

The Government took some major initiatives during the period to boost agriculture production and productivity through enhanced credit flow and by way of building agricultural infrastructure, particularly irrigation and connectivity in rural areas.

The SHG – Bank Linkage Programme was started as a pilot project by NABARD in 1992. It led to the evolution of a set of RBI approved guidelines to banks to enable SHGs to transact with banks. RBI scaled down its contribution to the Rural Credit funds with NABARD to a token amount of one crore rupees per annum since 1993-94. However to enable NABARD to have reasonably strong leverage for accessing market funds, the share capital of NABARD was strengthened and increased to two thousand crore rupees (paid up) from hundred crore rupees at the time of its formation in 1982. Contributions to enhanced share capital have come from Government of India and RBI. By prudent funds management, the institution has also built a strong base of reserves and has been using it in its business operations judiciously to keep lending rates to rural financial institutions at significantly lower than market costs.

Special Agricultural Credit Plan (SACP) was introduced by RBI for Public Sector Commercial Banks in 1994-95. Rural Infrastructure Development Fund (RIDF) was set-up in NABARD by Government of India during 1995-96 with an initial corpus of two thousand crore rupees, to accelerate the completion of on-going projects of rural infrastructure.

Banks which did not fulfil the priority sector credit requirement and agriculture credit mandate were required to contribute to this Fund. The fund has been strengthened every year with additional allocations in the Union Budget.

I.2. 3 Developments – Post 2003-04

Since 2003-04, there has been a substantial increase in the flow of credit to agriculture through commercial banks. Disbursements have increased from fifty two thousand four hundred and forty one crore rupees in 2003-04 to one lakh sixteen thousand four hundred and forty seven crore rupees in 2005-06, reaching an annual growth of forty

three per cent each year. As envisaged in the Government of India's strategy for "doubling of credit", ninety five lakh new farmers have been brought under the institutional fold and thousand three hundred and eighty three Agri-clinics opened.

Commercial banks have also played a major role in the promotion of the SHG – bank linkage movement with more than eleven lakh eighty eight groups being linked to banks for provision of credit. Reforms in the commercial banking system include removal of procedural and transactional bottlenecks including elimination of Service Area Approach, reducing margins, redefining overdues to coincide with crop cycles, new debt restructuring policies, one time settlement and relief measures for farmers indebted to non-institutional sources

Even though the buzzword started recently, the initiatives taken place from 1969 onwards through the nationalisation of fourteen major commercial Banks, which facilitated a change in centre of attention of banking from class banking to mass banking. It was however realised that, despite the wide spread of formal financial institutions, these institutions were not able to cater the needs of the most poor and weaker sections of the society. It leads to a search of alternative policies and reforms for reaching out to the poor to cater their financial needs. Reserve Bank of India adapted Financial Inclusion approach based on the elementary principle of **5A**'s of ensuring **A**dequacy and **A**vailability of financial services to all sections of the society through the formal financial system covering savings, credit, remittance, and insurance. And also an important strategy is increasing **A**wareness about such financial services by ensuring **A**ffordability and **A**ccessibility of the apposite financial products.

I. 3. Financial Inclusion in India

Financial inclusion is a great step to alleviate poverty in India. But to achieve this, the government should provide a less perspective environment in which banks are free to pursue the innovations necessary to reach low income consumers and still make a profit. Kerala stands unique among Indian states with a consistently higher level of human

development comparable with that of many advanced countries but with a much lower per capita income. Kerala ranked first among major States in India in the Human Development Index (HDI) at the four time points of 1981, 1991, 2001, and 2011, but its per capita income lagged behind the all-India average till recently. The RBI recently came up with a State-wise Index of Financial Inclusion and the results were rather surprising, Kerala topped the index. In this survey, RBI considered three basic dimensions of an inclusive financial system, *banking penetration, availability of the banking services* and *usage of the banking system*. The main reasons for selecting these dimensions are data availability and recent development in the literature.

The nationalization of major commercial banks in 1969 was an important landmark in the history of financial inclusion. An imperative development in the last peculiar years has been the organisation of Self-Help Groups (SHGs) or small groups of people who could borrow from the banking system. In several ways, the SHGs movement has been a success. Nevertheless, it also seen that it is concentrated much more in the South and therefore there is a regional disparity in terms of the growth of the SHGs. The term "Financial Inclusion" has gained significance since the early 2000s. Financial exclusion can make poor people exposed to loan sharks. Microfinance is an approach used to lessen financial exclusion. Government of India constituted a Committee to enhance Financial Inclusion in India on 22nd June 2006. The Committee presented its report in January 2008.

The financial sector provides critical financial services to households and business enterprises which include:

1. Safe saving and range of risk-return trade off services. It mobilizes savings into formal financial system. It helps accumulation of financial assets which can provide a cushion against unforeseen events.
2. Additional means beyond privately accumulated savings of help by way of credit and insurance to absorb shocks of unforeseen circumstances.

3. It reduces dependence on informal financial sources such as pawn shops, money lenders or informal groups relating to savings and credit associations by poor low income vulnerable group of society.
4. Facilitate payment between different parties and make them safer to a cash transaction.

Financial inclusion can act as an effective instrument to alleviate poverty in the world particularly in developing and under developed countries by using thrift savings and better access to credit for the needy at speedy less costly way. The financial inclusion therefore has become issue of worldwide concern as large section of the population has no access to financial services and depends on own resources or informal sources of financial services. All the countries are making conscious efforts to bring vast segment of population especially under privileged section of the society in rural and urban areas into the banking fold.

I.4. Objectives of Financial Inclusion Programme

From the definitions given above, it is evident that there are two approaches for describing the objectives of financial inclusion programme. One is narrow approach and the other is comprehensive approach or holistic approach.

In narrow approach, the objective of financial inclusion programme is to merely opening up of accounts in the formal banking sector. A person is said to be statistically financially included when he just open up an account in the formal banking sector.

In the comprehensive approach, the objective of financial inclusion programme is getting economic upliftment for the beneficiaries of the programme from one level to another. That means effectiveness of financial inclusion happens when a person gets economic benefit through the programme. Economic benefit means whether they get any additional income generation, asset creation or employment generation through the programme.

I.5. Steps taken by Banking Industry in India (Origin of Financial Inclusion Programme):

Following are the various steps taken by RBI in various stages of banking evolution before the buzzword of financial inclusion come into practice: it can be clearly specify with a pictorial representation;

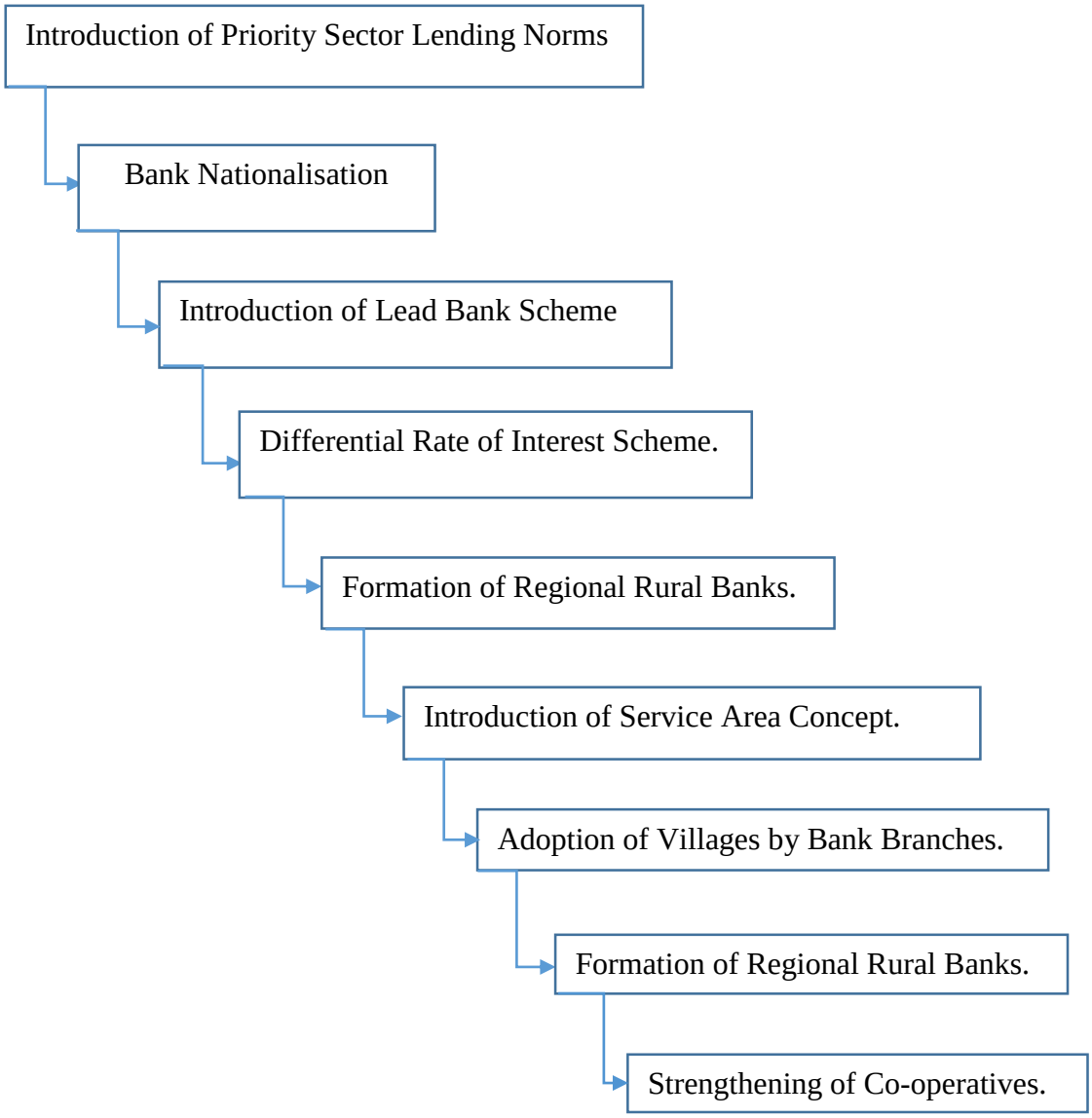


Figure I.1.Steps taken by RBI before the Origin of Financial Inclusion Programme in India

I. 5. 1. Priority Sector Lending (1967-68)

Priority Sector includes the following categories:

(i) Agriculture
(ii) Micro, Small and Medium Enterprises
(iii) Export Credit
(iv) Education
(v) Housing
(vi) Social Infrastructure
(vii) Renewable Energy
(viii) Others

I. 5. 2. Bank Nationalisation

Fourteen major commercial banks were nationalised on 19th July 1969- and six more commercial banks were nationalised on 15th April 1980.

I. 5. 3. Lead Bank Scheme (1969) - Gadgil study group

The National Credit Council was set up in December 1967 to determine the priorities of bank credit among various sectors of the economy. The NCC appointed a study group on the organizational framework for the implementation of social objectives in October 1968 under the Chairmanship of **Prof. D R Gadgil**. The study group found that the Commercial Banks had penetrated only five thousand villages as of June 1967. The Banking needs of the rural areas in general and backward in particular were not taken care of by the Commercial Banks. Besides, the credit needs of Agriculture, SSI and allied activities remained neglected.

Objectives of Lead Bank Scheme:

1. Eradication of unemployment and under employment
2. Appreciable rise in the standard of living for the poorest of the poor

3. Provision of some of the basic needs of the people who belong to poor sections of the society.

I. 5. 4. Differential Rate of Interest Scheme (March 1972)

Government of India had formulated in March, 1972 a scheme for extending financial assistance at concessional rate of interest @ 4 per cent to selected low income groups for productive endeavours initially by public sector banks and then by private sector banks also . The scheme known as Differential Rate of Interest Scheme (DRI) is now being implemented by all Scheduled Commercial Banks.

I. 5. 5. Regional Rural Banks (RRBs)

A vast majority of the small and marginal farmers and rural artisans remained untouched by the banking system. Therefore, the range of institutional alternatives was widened in 1975 by adding Regional Rural Banks (RRBs) to the banking scene which would exclusively cater to the credit demands of the hitherto neglected segment of the rural economy.

I. 5. 6. Service Area Approach (1989)

The Service Area Approach (SAA) introduced in April 1989, in order to bring about an orderly and planned development of rural and semi- urban areas of the country, was extended to all Indian scheduled commercial banks including Regional Rural Banks (RRBs). Under the SAA, all rural and semi-urban branches of banks were allocated specific villages, generally in geographical contiguous areas, the overall development and the credit needs of which were to be taken care of by the respective branches.

I. 5. 7. Social Banking:

Social Banks provides financial services to individuals and organizations that create social, environmental or sustainability benefits. According to Global Alliance for Banking on Values, social banking follows triple bottom line approach at the core of the business model and is grounded in communities, serving the real economy and enabling

new business models. Social Banks provide long term relationship with clients and direct understanding of their economic activities and the risks involved.

> Social banks look for a blended value return delivering both social and financial returns. (Weber, 2014)

I. 5. 8. Financial Inclusion Programme (FIP) -from 2005 onwards:

I. 6. Definitions of Financial Inclusion:

I.6.1 "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. - ***(Rangarajan committee,*** *2008) - the Committee on Financial Inclusion*

I.6.2 "Expanding access to financial services, such as payments services, savings products, insurance products, and inflation-protected pensions.**"– *(Raghuram Committee)*** on *Financial Sector Reforms (CFSR)*

I.6.3 "A financial sector that provides access for credit for all bankable people and firms and saving and payment services to everyone. Inclusive finance does not require that everyone is eligible to use each of services but they should be able to choose them if desired". – (***United Nations).***

I.6.4 "Full financial inclusion is a state in which all people who can use them have access to a full 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, and reach everyone who can use them, including disabled, poor, rural, and other excluded populations."- (***Centre for Financial Inclusion)***

The Centre for Financial Inclusion proposes a simple yet multi-dimensional definition of Financial Inclusion.

From the above all definitions, it is clear that there are four core dimensions for Financial Inclusion Programme. They are:

1) ***What is provided:*** A full range of services, which includes a basic product in each of the four main areas: savings, credit, insurance, and payments.
2) ***How it is provided:*** With quality that is-convenience, affordability, safety, and dignity of treatment—and with client protections operating.
3) ***Who receives:*** Everyone who can use the services, including the poor, rural, informal, and groups who are often discriminated against (women, ethnic minorities, disabled).
4) ***Who provides:*** A range of providers led by mainstream financial institutions, but also including organizations from the private, social, and government sectors

The above said four dimensions can be treated as the four elements or characteristics of the financial inclusion.

I.7. Elements of Financial Inclusion Programme:

I. 7. 1. No-frill accounts

In November 2005 RBI advised banks to make available a basic banking "No-frill Account" with low or nil minimum balances as well as charges to expand the outreach of such accounts to vast sections of the population.

I. 7. 2. Simplification of KYC norms

In order to ensure that persons belonging to the low income group both rural and urban areas do not encounter difficulties in opening bank accounts, the Know Your Customer procedure (KYC) for opening bank account was simplified asking banks to seek only a photograph of the account holder and self-certification of addresses (the amount of outstanding balance in these accounts would be limited to fifty thousand rupees and total transactions would be limited to one lakh rupees in one year.

I.7. 3. Introduction of Kisan Credit Cards (KCC) and General Credit Cards (GCC)

Banks were asked to introduce a general credit card scheme for issuing GCC to their constituents in rural and semi-urban areas based on the assessment of income and cash flow of the household similar to that prevailing under normal credit card without insisting on security and the purpose or end use of credit (as Point Of Sale-POS and ATM facilities) with similar products are not feasible or available and limited infra-structure in rural areas. The limit under GCC is up to twenty five thousand rupees. Banks were advised to utilize the services of Schools, Primary Health Centre, local government Functionaries, Farmers' Association or Clubs, well established community based agencies etc.

Kisan Credit Card is issued to farmers. The scheme aims at providing adequate and timely credit for the comprehensive credit requirements of farmers under single window for the entire year, including the short term credit needs and a reasonable coverage for consumption needs. The farmers need not visit banks more often to buy seeds, manures, medicines and other agricultural implements. The validity period of this overdraft facility is three years subjected to annual review. Keeping in view the unabated price rise, it is not necessary to avail loans separately for kharif and other seasonal crops or for medium term crops. Using this card farmers can buy improved seeds, manure whenever they are available. The benefit of discount is also passed on to borrowers, direct payment facility is enjoyed.

Fixation of maximum limit depends on total agricultural income. There is no restriction on number of withdrawals within the quantum of limit fixed. The repayment commences after harvesting. When certain amount is remitted to loan account in between when surplus money is held on hand, the interest is rebated. The rate of interest is equal to the rate of interest on agricultural loans. The processing of loan papers and the nature of security is similar to that of agricultural loans. KCC card holders are covered under personal accident insurance up to fifty thousand rupees for death and permanent

disability. The master policy is valid for three years. The annual premium is fifteen rupees. Banks pays ten rupees and the card holder has to pay five rupees.

When the loan is sanctioned after the submission of application for loan, the farmer will be provided with a credit card and a passbook of card cum passbook. The card contains the photograph of the borrower incorporating name and address, extent of land holding, borrowing limit, validity period of loan etc. The details of withdrawals and remittances are recorded in this card cum passbook. The passbook should always accompany the customer at the time of transaction in the account.

This facility is also extended by banks for agriculture and activities allied to agriculture like dairy, fisheries, piggery, poultry farming, beekeeping etc.

The short and medium term loans are also extended for individuals, self-help groups, joint liability groups etc.

The commercial banks have introduced GCC scheme for their constituents to provide loans for general credit needs in rural and semi urban areas in a hassle free manner based on the assessment of income and cash flow of the entire house hold without insistence on security, purpose or end use of the credit. This is in the nature of overdraft or cash credit with no end use stipulations, not exceeding twenty five thousand rupees.

The scheme would be implemented by both public sector and private sector scheduled commercial banks. The individual banks have autonomy to determine the rate of interest to be charged on the loan. The fifty per cent of credit component will be eligible for being treated as indirect finance to agriculture under priority sector status. It is not necessary or compulsory that GCC should be linked to purchase of consumer goods. GCC can be issued in the form of passbook only when the card holder intends to withdraw cash. The individual banks can incorporate suitable modifications if any with the prior permission of RBI without altering the original characters of the scheme.

I. 7. 4. Branch Expansion

Weightage for financial inclusion in branch licensing. In terms of existing provisions of banking regulation act, 1949 banks are not allowed to open new place of business or change the locations of the place or villages in India without prior approval of RBI. While considering the application of banks for opening branches, RBI gives due weightage to the nature and scope of banking facilities provided to common person, particularly in unbanked areas, actual flow of credit to the priority sector, pricing of its products and overall efforts for promoting financial inclusion including introduction of appropriate new products and enhanced use of technology for delivery of banking services.

RBI has identified districts were the population per bank office is higher than national average in rural and semi-urban areas. The lead banks have been advised by RBI to identify unbanked villages of populations above two thousand and to provide banking services through a banking outlet in every village by March 2011. Now it is completed through the lead banks of the concerned districts. Such banking services may not necessarily be extended through a brick and mortar branch but can be provided through any of the various forms of Information and Communication Technology (ICT) models, including through BCs.

a) Identification of under-banked centre.
b) Co-operative banks and RRBs have been allowed to sell insurance and financial products.
c) RBI has liberalized policy for ATMs. The National Electronic fund transfer (NEFT) facility is able to offer nationwide ATM linked to NEFT with effect from 1-04-2009 and can facilitate banking transactions including remittance through ATMs.
d) RBI has also rationalized service charges for use of electronic products which would facilitate movement of funds at low cost.

I. 7. 5. Mobile Banking

Mobile banking is a term used for performing accounting transactions, balance checks, payments via mobile device such as mobile phone.

Mobile banking enables:

- Users to perform banking transaction using mobile phone like balance checks, fund transfers, bill payment etc.
- Purchase goods over internet or phone delivery
- Person to person fund transfers
- To pay goods at merchant location point of sale.

  As the penetration of mobile phones particularly among low income people and enormous opportunities they afford in extending the banking outreach, RBI has formulated guidelines on mobile banking. It has encouraged introducing technology based products and services such as pre-paid cards/debit cards.

I.7.6. Use of Intermediaries: - Adoption of Agency Model (Business Correspondents or Business Facilitator)

The type of services of Business Facilitator is:

- Identification of borrowers and fitment activities.
- Creation of awareness of savings and other products.
- Collection and preliminary process of loan application.
- Processing and submission of application to banks.
- Educating, counselling, advice on managing money and debt.
- Promotion and nurturing of Self Help group and Joint Liability Group.
- Post sanctions monitoring.

In addition to the activities listed under business facilitator model, the scope of activities listed to be undertaken by BCs will include:

- Disbursement of small value credit.
- Recovery of principal or collection of interest.
- Collection of small value deposits.
- Sale of micro insurance or mutual fund products, pension products and other third party products.
- Receipt and delivery of small value remittances, other payments of instruments.

I.7. 6a: Benefits of Branchless Banking to Customers

- Customers need not come to branch for carrying out basic transactions such as cash deposits, withdrawal (Mini Statement) and saves time and cost of travel which can be used for his or her occupation or income generation activity.
- Access to banking facility in unconnected areas.
- Availability of multitude of banking products and services at their location.
- Enable micro finance disbursement or micro insurance facilities.
- Self Help Groups can be serviced at their doorstep.
- Collection of fees in colleges and schools.
- Payment of pension at the residence of the pensioner-payment of salary at their office, factory etc.
- Setting stalls, exhibitions, fares, outside locations etc. for catering to the customers.
- Government payment on account of NREGP or subsidy.
- Utility payment.

II.7. 6b: Benefits to Banks

- Expand reach of bank's financial inclusion services for people in remote/un-banked location and inculcate the habit of thrift among rural folks.
- Enhance social responsibility of banks by taking technology to common man.

- Economics of operation-low transaction cost vis-à-vis branch based.
- Competitive edge in tapping untapped business potential.
- Building long-term relationship with customer announcing trust and loyalty towards bank.
- Transaction being handled by devices has greater accuracy and increased security.

e) Use of post offices.

Above described are the various aspects of Financial Inclusion programme in India.

I.7.7 Progress of Financial Inclusion Programme during Last Five Years in India

Table I. 1 Progress of Financial Inclusion Programme during the last five years in India (from the year 2013 onwards)

Sl. No	Supply side factors	**2013**	**2014**	**2015**	**2016**	**2017**
1	Banking Outlets in Villages - Branches	40,837	46,126	49,571	51,830	50,860
2	Banking Outlets in Villages - Branchless Mode	2,27,617	3,37,678	5,04,142	5,34,477	5,47,233
3	Banking Outlets in Villages - Total	2,68,454	3,83,804	5,53,713	5,86,307	5,98,093
4	Urban Locations covered through BCs	27,143	60,730	96,847	1,02,552	1,05,402
5	Basic Savings Bank Deposit Account through branches (Number in millions)	101	126	210.3	238	254
6	Basic Savings Bank Deposit Account (BSBDA)	165	273.3	365	474	691

	through branches (Amount in rupees billion)					
7	Basic Savings Bank Deposit Account (BSBDA) through BCs (Number in millions)	81	116.9	187.8	231	280
8	Basic Savings Bank Deposit Account (BSBDA) through BCs (Amount in billion rupees)	18	39	75	164	285
9	BSBDA Total (in millions)	182	243	398.1	469	533
10	BSBDA Total (Amount in rupees billion)	183	312.3	439	638	977
11	OD facility availed in Basic Savings Bank Deposit Account (Number in millions)	4	5.9	7.6	9	9
12	OD facility availed in Basic Savings Bank Deposit Account (Amount in rupees billion)	2	16	19.9	29	17
13	KCCs-Total (Number in millions)	34	39.9	42.5	47	46
14	KCCs-Total (Amount in rupees billion)	2,623	3,685	4,382.30	5,131	5,805

15	GCC- Total (Number in millions)	4	7.4	9.2	11	13
16	GCC- Total (Amount in rupees billion)	76	1,096.90	1,301.60	1,493	2,117
17	ICT A/Cs-BC Total Transactions (Number in millions)during the year	250	328.6	477	827	1,159
18	ICT A/Cs-BC Total Transactions (Amount in rupees billion) during the year	234	524.4	859.8	1,687	2,652

Source: RBI website (www.rbi.org.in)

The above table (Table No: I. 1) clearly exhibits the last five years increase in the financial inclusion programme in India. A tremendous increase showed in every aspects (Banking Outlets in Villages – Branches, Branchless Mode, Urban Locations covered through BCs, Basic Savings Bank Deposit Account (BSBDA) through branches (Number in millions), Basic Savings Bank Deposit Account (BSBDA) through branches, Basic Savings Bank Deposit Account (BSBDA) through BCs (Number in millions), Basic Savings Bank Deposit Account (BSBDA) through BCs (Amount in Rupees billion), BSBDA Total (in millions), BSBDA Total (Amount in rupees billion), OD facility availed in Basic Savings Bank Deposit, OD facility availed in Basic Savings Bank Deposit, KCCs-Total (Number in millions), KCCs-Total (Amt. in rupees billion), GCC-Total (Number in millions), GCC-Total (Amount in rupees billion), ICT A/Cs BC Total Transactions (Number in millions), ICT A/Cs-BC Total Transactions (Amount in rupees) of supply side financial inclusion. There is a

remarkable increase from first year to second year in the above listed eighteen aspects and it showed increasing trend till these five years.

1.8 Institutional Structure of Financial Inclusion

Following diagram shows the institutional path through which financial inclusion practice is going on to the final destination. That means various authorities who are working for getting the task ahead.

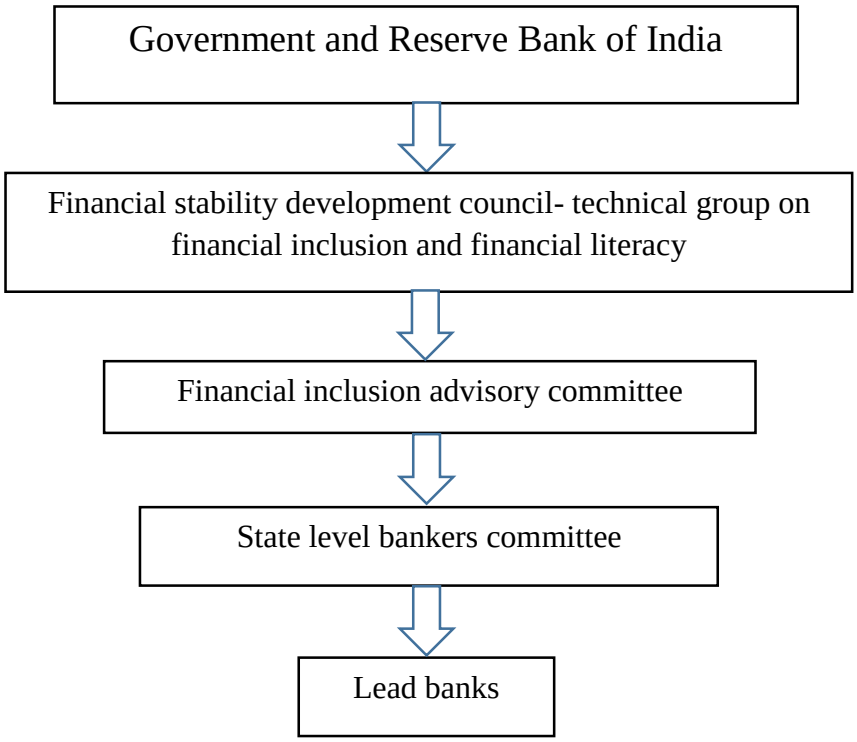


Figure 1.1 Institutional Structure of FIP

I.9 Significance of the study:

The creditworthiness of the beneficiaries when providing financial services should be verified compulsorily. Similarly "the 'access to' and 'use of' financial services has to be demarcated by the policy makers, here access refers to the supply of services, and use is determined by demand as well as supply" (World Bank, 2008)

The study is significant from both an application perspective of Banking as well as from policy maker's angle. The market for banking products to capture the needs of low income groups is a highly fragmented one, for specific segments. It is well known in banking literature that the bulk of the volume of sale of banking products is accounted for by the minority who are the heavy users. This knowledge might be useful for better segmentation using psychographic variables as well as for designing specific advertisement campaigns to target the vulnerable groups of customers. From a theoretical perspective, the research may contribute to understanding how can be improve our existing policy of financial inclusion through implementing every aspects as written in the programme schedule.

Importance of financial inclusion arises from the problem of financial exclusion of nearly three billion people from the formal financial services across the world (Swami and Vijayalakshmi, 2010). The annual policy statement of April 2005, while recognizing the concerns in regard to the banking practices that tend to exclude rather than attract vast sections of population, urged banks to review their existing practices to align them with the objective of financial inclusion.

Financial Inclusion programme envisaged by RBI is not a social responsibility and can be viewed as an opportunity for banks to increase their business.

Indian economy is one of the fastest growing economies in the world (Planning Commission, 2008). Banks are the corner stone of development. Nationalised Banks play a vital role in the development of a country like India.

Investigation revealed that no detailed study on financial inclusion as an opportunity for both banks and the target groups in Kerala has so far been attempted and it is in this context the present study, to undertake a study on people who are financially included i.e., who have a bank account in the formal financial sector and checking on the basis of usage, their accessibility towards, financial services along with the effectiveness of

financial inclusion programme in Kerala are measured in the study and thus *"effectiveness of financial inclusion programme in Kerala",* is undertaken.

I. 10. Theoretical Background

Following are the theories supporting for the inclusive growth in this study:

In the literature on effectiveness of financial inclusion programme, a number of theoretical positions were observed aimed at defining this concept and examining its economic impact on beneficiaries. This research study is based on the theory of financial development and growth processes as well as unconventional economic theory which says to offer at the bottom of the pyramid, the products and services they needed according to an appropriate economic model. Such access helps these people to escape poverty.

I. 10. 1 Financial Development and Growth Theory

The long-term sustainable economic growth depends on the ability to raise the rates of accumulation of physical and human capital, to use the resulting creative assets more efficiently, and to ensure the access of the whole population to these assets. Financial development and economic growth are thus clearly related, and this relationship has occupied the minds of economists from Smith to Schumpeter; although the channels and even the direction of causality have remained unresolved in both theory and empirics. (Valpy Fitz Gerald, 2006)

I. 10. 2 An Unconventional Economic Theory

One of the main thinkers behind this approach is C.K. Prahalad, a U.S. economist of Indian descent. He predicted the success of an economy that would be able to offer those "at the bottom of the pyramid" the products and services they needed according to an appropriate economic model. Such access helps these people to escape poverty; all while creating new markets for companies.

The unconventional economic theory is employed by Christel Koehler (2009) towards financial inclusion strategies. The unconventional economic theory explaining in terms

of financial exclusion in India is an important concern for excluded disadvantaged communities in which discrimination has been observed especially in access to finance, capital, resources, technology, and markets. The basic purpose is to use as far as possible neoclassical tools in the analysis of discrimination. The lack of financial products, is concentrated in a small number of deprived people from social group (SC, ST and Women) and sectoral (agricultural labourers, wage labourers, children, small and marginal farmers) areas excluded

I. 10. 3. Normative Theory of Social Exclusion

Brian Barry (2010) has made an enormous contribution to the Normative Theory of Social Exclusion He debated on social exclusion in the areas of welfare and fairness for the socially excluded people. The normative theory of social exclusion is explain the discriminatory practices in different forms such as access to finance, access to quality of technical & medical education, resources, technology and markets.

Seema Khan(2012) developed resource guide which aims to introduce some of the best literature on the definitions, understandings, causes, and impact of social exclusion, as well as the ways in which exclusion can be measured and addressed by governments, civil society actors and international organisations. Therefore, in the Normative theory emphasizing in the course of human development, exclusion has taken the form of segregating a group of people from the social, political, economic, cultural, educational, and religious domains of societal life. But we need to stress that social exclusion does not limit itself to segregation and deprivation. Social seclusion and isolation provide a base for a sense of superiority and inferiority among members of the same society or culture. It also culminates in a system of domination and subjugation.

I. 10. 4 Economic Growth Theories of Development

(World Bank, 2008) advocate that financial development creates enabling conditions for growth through either 'supply-leading' (financial development spurs growth) or a 'demand-following' (growth generates demand for financial products) channel. Earlier

theories of development hypothesised that a rise in inequality was inevitable in the early stages of development.

I.11. Effectiveness of Financial Inclusion Programme in Kerala:

In the present study, effectiveness of financial inclusion programme in Kerala were studied from both sides. To measure the effectiveness of FIP from supply side, financial inclusion index were used. i.e., to study the extent of accessibility, availability and usage were considered as the independent dimensions and these were taken as the three dimensions of the index. Demand side of the financial inclusion programme were measured using the model developed based on the perception of beneficiaries.

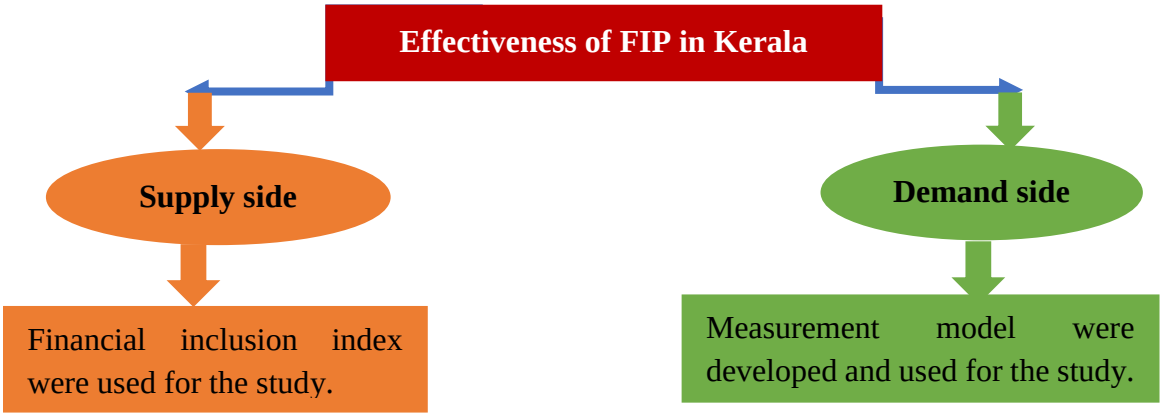


Figure I.3: Studying Effectiveness of FIP in Kerala

1.12. Expected Contributions from the Study:

Contributions from the findings are important due to the following five reasons:

1. Study gives attention from the supply side of Financial Inclusion Programme (FIP) as well as demand side of the FIP, so the reality can be revealed.

2. Study tries to understand the perception of beneficiaries towards the extent of accessibility, and usage of formal financial services and their enhancement in personal finance by increasing assets, income and employment opportunity.
3. Financial literacy acts as a moderator in between accessibility and usage perception
4. Research suggestion can be used by service providers to rethink and make apt strategies in the reality.

The findings of this study will provide better understanding of the effectiveness of financial inclusion programme from the demand side based on their usage instead of looking on merely opening up of accounts. This study will facilitate banking industry (or similar service providers who use financial inclusion programme) to better understand the management and control of the major attribute dimensions perceived by the consumers. It will help policy makers in focusing more attention to those performing attributes thereby enhancing efficiency. This study will flip some insight in the measurement and understanding of the extent of perceived accessibility, and usage of need based financial services as part of the financial inclusion programme and its effectiveness. This study provides the effect of financial literacy in moderating the relationship between usage and effectiveness of the programme. The study findings would aid financial service providers to understand the usage pattern of low income groups and can modify the existing policy based on the research suggestions.

1.13. Report Structure

The thesis is divided into six chapters. First chapter 'Introduction' gives an introduction to the study by covering various aspects of financial inclusion programme, objectives of the FIP, theoretical background of the study, significance of the study, and contribution expected along with organisation of the thesis. Second chapter deals with review of literature on each variable viz a viz accessibility, availability, usage, financial literacy, and effectiveness of financial inclusion programme. Third chapter includes methodology, rationale of the study, statement of the problem, definitions (theoretical

and operational), conceptual framework, objectives, research hypothesis, operationalisation of terms used, basic research design, tools of data collection, interview schedule preparation, validity analysis-content validity, face validity, criterion validity, reliability analysis, scope of the study, data collection, population of the study, selection of unit of observation, sample size and sampling method and statistical analysis and validation and limitations of the study. Fourth chapter deals with data analysis and interpretation. Fifth chapter includes findings of the study. Sixth chapter deals with suggestions and recommendations.

Chapter II
Review of Literature

A comprehensive review of literature pertaining to the research work is given in this chapter. The major constructs namely accessibility, availability and usage in relation with financial inclusion programme, financial literacy and effectiveness of financial inclusion programme (asset creation; income generation and employment generation) which are relevant to the study were extracted through the literature survey.

II.1 Financial Inclusion

The initial step towards determining the extent of financial inclusion is to identify the indicators that measure the level of accessibility of financial services in a country. Policy makers need reliable information about the extent of inclusiveness prevalent currently in order to frame policies and action points to overcome barriers (Gupta *et al.*, 2013). Delivering financial services through innovative mechanism is cheaper than delivering financial services through conventional system. (World Bank, 2012). Generic strategies and rural financial inclusion policy as a focus strategy in bank outreaching are the main points to overcome financial exclusion. Micro finance banks can employ to enhance savings in rural areas and survive in a globally competitive environment. (Onaolapo and Odetayo, 2012). Establishing a bank account, increasing savings, using credit wisely, avoiding over indebtedness, applying for micro finance loans, adopting new technologies, reducing chances of fraud, choosing the right insurance are relevant factors identified for inclusive growth. (Miller and Lee, 2012). Technology readiness, age and gender moderate the beliefs-intention relationship. Customers with varying levels of technology-related views and demographics hold different beliefs about technology. The relationship between usefulness and behaviour was stronger for younger males with high levels of optimism and innovativeness, at the same time as the relationship between ease of use and behaviour was stronger for older females with a high level of discomfort. (Yousafzai and Soriano, 2012).

The delay in issue of smart cards, stoppage of enrolments, and limited utility of smart cards are certain grey areas in implementation of financial inclusion plan. Challenges such as Financial Inclusion efforts being limited to channelizing welfare benefits at higher cost to the state, banks viewing it as target oriented government programme rather than business opportunity, poor viability of the model, problems relating to technology, and stakeholders' orientation. (Bakshi P, 2012). Customers prefer BC model due to issues such as convenience and saving on cost with regard to other models of payments and deposits. (Puhazhendhi, 2012). Financial inclusion needs direct engagement with the clients, by offering appropriate financial products and services including financial literacy, and the BC model enables banking to the doorstep (Handoo, 2012).

Micro credit and micro savings have great potential to alleviate poverty in India. Through the use of technology, innovations and marketing strategies financial inclusion can prove that small is beautiful. (Joseph, 2011). Common minimum agendas for the growth of Indian economy are: social protection of agricultural worker, education and information drive among them, empower with inclusive education and training using mass media, increase the role of media etc. In the international level, the main implementing mechanism of the action plan is a new Global Partnership for Financial Inclusion (*GPFI*). Financial Stability Board (*FSB*) is entrusted with the responsibility to examine the issue in collaboration with other international organizations, and to report back to the next G20 Summit. (Chatterjee, 2011). Income, inequality, literacy, urbanization and physical infrastructure for connectivity and information are important variables for financial inclusion. Health of banking sector does not seem to have a precise effect on financial inclusion whereas ownership pattern does seem to matter. Level of human development and financial inclusion in a country move closely with each other. (Sarma and Pais, 2011).

Greater financial inclusion presents opportunities to enhance financial stability (Hannig and Jansen, 2010). Majority of UK Muslims are financially excluded due to the absence of banking products that would meet their needs and would also comply with Shari'a, main reasons for the low take-up of the existing Shari'a compliant financial products relate to the strong skepticism about the authenticity of such products. Affordability,

acceptability and accessibility of these products remained a real cause for concern for most of the less affluent UK Muslims. (Hersi, 2009). The importance of Financial Inclusion to national economies is obvious from the support extended by individual governments and international bodies around the world (Frost & Sullivan, 2009).

A financial advisor's good sense of humour has a positive impact on the clients' perceptions of service quality, trust, satisfaction, purchase intentions, and word-of-mouth propensity. A better understanding of humour is useful for service providers owing to its mass potential, its low cost, and its positive benefits for customers and financial advisors alike. (Bergeron and Vachon, 2008). Any financial inclusion solution must be sensitive and responsive to the varied circumstances and multifarious financial needs of local communities – one-size-fits-all models of financial inclusion will have limited success due to the heterogeneous local manifestations of financial exclusions, the variety of perceived needs, and the variances of both of these over space and across social groups. (Fuller *et al.*, 2006). With the framing of financial inclusion agenda, many saw formal financial services as the only long term solution to sustainably reach more customers (Isern and Porteous, 2005).

The communication of social responsibility in television commercials for banks has increased by seven percent over the years. (Peterson and Hermans, 2004). "Opening a bank account, as a positive step, does not move someone from being excluded to being included. There is a spectrum of financial inclusion" (Regan *et al.*, 2003). Bank-driven pricing strategies may have an overriding effect on other factors. Profits may be increased, socio-economic exclusionary effects reduced and social image improved by voluntarily reconsidering pricing and other bank-driven exclusionary strategies. (Sharma and Reddy, 2003). Customers expect banks to provide the basic banking services and they are also expect different levels of services to maximize the value they can derive from the banks. Hence, customers evaluate competing offers in terms of the totality of the product and service as well as the relationship that exists between themselves and the bank. To gain marketing advantage, banks have to exceed customers' expectations rather than merely meet the bare minimum. Every interaction with a customer provides an opportunity to be "unique" and to "go beyond the call of duty". (Chang *et al.* (1997)

II .2. Accessibility and Availability

Access to basic financial services such as savings, loans, insurance, credit, etc., through financial inclusion has a positive impact on the lives of the poor and help them to come out of the charges of poverty. (Lal, 2018). Participation has led to increase in the standard of living, thereby reducing multi-dimensional poverty and participation does not reduce deprivations in the "education" dimension, whereas in all other dimensions reduction in deprivations is significant. The programme under study seems to be seriously improper targeting by allocating the programme to non-poor sections rather than absolute poor. (Khaki & Sangmi, 2017). Financial inclusion, or access to and the use of affordable financial services, boosts world development (Allen et al., 2016; Demirgüç-Kunt and Klapper, 2013; Zins and Weill, 2016).

Criteria to measure the status of financial inclusion in an economy such as (i) outreach dimension and (ii) actual usage dimension. In terms of outreach dimension, there are two types of indicators: geographical penetration (number of bank branches or ATMs per 1000 square kilometers) and demographic penetration (number of bank branches or ATMs per 100000 people). More bank branches and ATMs per 1,000 square kilometers indicates smaller distances to nearest physical bank outlets and easier geographical access. Demographic penetration measures the average number of people served by each bank branch or ATM. (Mehrotra et. al 2009; Sarma, et. al 2010; and United Nation, 2006).

Access: means the ability to use available financial services and products from formal institutions (Hannig and Jansen, 2010)

Access to financial services allows the poor to save money safely, prevents the focus of economic power with a few individuals and helps to lessen the risks that the poor face as a result of economic shocks or natural calamities (Mehrotra *et. al*, 2009).

Promoting access to financial services has become a major concern for policymakers in developing countries and broad access to financial products is interconnected with social and economic development (World Bank, 2008). Through finances, growth is achieved because it fuels 'creative destruction' by allocating resources more efficiently (Sarma,

2008; Aghion, 2008). This implies that through broader access to financial services, beginners are "empowered and freed from the disadvantages that would otherwise arise from their lack of inherited wealth and absence of connections to the network of well-off incumbents" (Rajan *et al.*, 2003). Accessibility leads to usage, and eventually it leads to upliftment of the poor or economic growth (Amendola *et.al, 2017*; Chen & Jin, 2017; Hirschler, 2015; Jones, 2015; Das, 2013; Allan *et.al, 2013*; Ardic *et.al, 2013*; Shankar, 2013; Pradhan, 2013; AFI, 2012; Minsk, 2012; Sharma *et.al*, 2011; AFI, 2010; Roubini & Bilodeau, 2008;Chavan, 2007; Helms, 2006; United Nations Capital Development , 2006; Helms, 2006)

It is hard work to pursue financial inclusion from a demand-driven perspective. (*Latortue et.al*, 2013). Some of the major factors standing as barriers to accessing proper financial services by the poor are, (1) socio-economic factors like education, gender and age, low and irregular income and geography), (2) regulatory factors like provision of identity documentation, (3) and product design factors like minimum account balances. On the other hand, the barriers that financial service providers experience in reaching out to the poor are the cost involved in providing such financial services and also, finding the regulatory space to innovate. It is a known fact that, transaction size is not the determining factor for transaction cost. Thus, it is not feasible to serve the poor with small value services under the existing retail banking or insurance domain.

Providing access to and use of formal financial services has gained a major prominence in the past few years as a policy objective for national policymakers (CGAP, 2009). Broad access to financial services and products is consistent with social and economic development (PRR on Access to Finance, 2006), a developed financial system is vital for achieving economic growth and poverty alleviation, and to enlarge financial inclusion (Beck *et al.*, 2000; Beck et al., 2004a).

The focus of the Access through Innovation Subgroup (ATISG) is on innovative methods of improving access to financial services. With over three million mobile phones already in use around the world and with rapid increase in its number, the costs of communications and information technology are reducing. This puts forth a great opportunity to utilise technology to address financial exclusion.

At this outset, financial sector policy and regulation determines the extent of use of technology for the promotion of financial inclusion. The number of countries depending increasingly on technology to address this issue is rapidly increasing. Thereby, the number of poor people who were earlier excluded from using these financial services are now, largely included by getting access to the basic services. But, innovation in delivery and design of financial services targeting the poor and the excluded, gives rise to challenging policy and regulatory issues. The capacity of policy makers is far below the rapid growth of industrial innovation.

Thus, the ATISG focuses on innovations with the capability of reducing transaction costs and reaching the excluded. This synthesis report contains the output of the first phase of work of ATISG till June 2010. During this phase, the main focus was on analysing the recent experience and lessons learned, and also the introductory identification of general principles.

The core of the ATISG report is the nine "Principles of Innovative Financial Inclusion". These nine principles are,

1. Leadership: cultivate a broad-based government commitment to financial inclusion to help alleviate poverty.
2. Diversity: implement policy approaches that promote competition and provide market-based incentives for delivery of sustainable financial access and usage of a broad range of affordable services (savings, credit, payments and transfers, insurance) as well as a diversity of service providers.
3. Innovation: promote technological and institutional innovation as a means to expand financial system access and usage, including by addressing financial sector weaknesses.
4. Protection: encourage a comprehensive approach to consumer protection that recognises the roles of government, providers and consumers.
5. Empowerment: develop financial literacy and financial capability.
6. Cooperation: create an institutional environment with clear lines of accountability and coordination within government; and also encourage partnerships and direct consultation across government, business and other stakeholders.

7. Knowledge: utilize improved data to make evidence based policy, measure progress, and consider an incremental "test and learn" approach acceptable to both regulator and service provider.
8. Proportionality: build a policy and regulatory framework that is proportionate with the risks involved in such innovative products and services and is based on an understanding of the gaps and barriers in existing regulation.
9. Framework: consider the following in the regulatory framework, reflecting international standards, national circumstances and support for a competitive landscape: an appropriate, flexible risk-based AML/CFT regime; conditions for the use of agents as a customer interface; a clear regulatory regime for electronically stored value; and market-based incentives to achieve the long term goal of broad interoperability and interconnection.

Availability of needed financial services leads to usage of financial inclusion products and thus to inclusive growth (Rusu, 2017; Zulfiqar et al., 2016; Kablana & Chhikara, 2013; Das, 2013; OECD, 2013; Shankar, 2013; Divya, 2013; Stewart et al., 2012; Cril, 2012; AFI, 2012; Chandra, 2012; Sreenivasan, 2012; Yorulmaz, 2012; Ministry, 2011; Bisht et al., 2010; Turnham, 2010; FINGroup, 2010; Basavaraja, 2009; United Nations, 2006; FitzGerald, 2006; Levine, 2005; Jones, 2001)

Income, financial information from various channels and awareness of self-help groups (SHGs), and education are influential factors significantly contributing to financial inclusion and were identified using a logistic regression model. Nearness to post office banks also increases the likelihood of Financial Inclusion. Area terrain and receipt of government benefit individually do not facilitate inclusion. Recipients of government benefits in plain areas show increased level of Financial Inclusion (Bhanot, Bapat, & Bera, 2012).

For increase the credit flow to MSMEs, suggested the introduction of single window clearance, centralized processing, online chasing of applications, using the services of NGOs to train micro / tiny sector entrepreneurs, setting up of specialized branches, review of credit flows in SLBCs, revival of potentially viable sick units, micro entrepreneurs gathering through SME welfare associations, and mobile banking services. (Narendra, 2012)

The role of regulatory environment which has paved path for the development of technology led models in the emerging economies of the world (Handoo, 2010). Even though there is increased spread of formal banking networks in the recent past, access to basic financial services are still beyond the reach of large sections of the society. Self-help group bank linkage model displays the potential to provide an alternative instrument to extend financial services to large unbanked sections of the society (Badajena and Gundimeda, 2010).

Compatibility, perceived usefulness, and risk are significant indicators for the adoption of mobile banking services. Compatibility had a strong direct effect and also identified as an important antecedent for perceived ease of use, perceived usefulness and credibility. Trust and credibility are vital in decreasing the overall perceived risk of m-banking (Lewis *et al.* 2010).

High interest rate on self-help group loan point out towards the affordability of micro finance for the poor borrowers who in effect are estimated to have a very high rate of return from their business ventures in order to just cover the interest cost. Micro finance has to develop as a means of financial inclusion that are accessible and affordable for the excluded groups/ regions and that can help loosen the grip of informal sources of finance and bring the excluded sections everlastingly into the ambit of formal finance (Chavan and Birajdar, 2009).

Becoming unemployed or experiencing a relationship break-up can have an adverse effect on people's experience of financial exclusion, in the sense that people may close down or stop using bank accounts or find it harder to access the mainstream credit. These exclusionary procedures can be captured in a specific set of barriers that explain why people decide not to use financial products or facilities on the one hand, or are denied access to certain financial services by financial institutions on the other. In the literature, these are broadly divided into institutional (supply-side) and individual-based (demand-side) hurdles; whereby the latter often, but not completely, explain issues of problems in using services and the former tends to create strain in accessing financial services". (Lederle, 2009).

The relation between poverty and access to financial services, explored the unique banking needs and first choice of the rural poor, assessed the potential that the unbanked rural segment carries in terms of viable rural banking and carried out a situational analysis of rural banking practices and savings mobilization and utilization in the rural areas. Kenyan because of formal financial institutes are concentrated in urban, semi-urban and cash crop growing zones, most of the rural poor do not have access to their services. Survey in Botswana showed that the rural poor have different levels of access to the financial zone. Parallel results of Namibian survey lead to the conclusion that improved access to financial services can contribute to poverty reduction among the poor. Refining access to formal financial services can contribute to poverty reduction among the poor. (Kibua, 2007). Consumers find it hard to obtain access to banking products. Banking products used by the sample are discussed as well as all their support motives. It was established that the majority of consumers did have a bank account and there was a significant link between having an account and various demographics such as income level, employment status and level of education. Specific strategies are recommended to bank management. (Saunders *et al.* 2007). The number of banks branches in rural areas were used as a measure of bank penetration and the credit access of farms in rural areas in India. (Binswanger and Khandker, 1995). A critical factor that facilitates people to exit poverty by enhancing productivity is access to finance (Banerjee and Newman, 1993).

II.3. Usage

Usage of financial inclusion products leads to inclusive growth (Rusu, 2017; Swamy, 2014; Mor & Ananth, 2013; Mamman, 2013; Srinivasan, 2012; Kanther & Nagabhushan, 2012; del Mar *et al.,* 2009; Grades & Agrarwissenschaften, 2007; Asian Development Bank, 2006; United Nations, 2006; Joo & Grable, 2004; Helms, 2006; Goldberg, 2005; Kamal, 1999)

Usage leads to additional employment, income generation, asset creation (World Bank, 2015; Demirguc-Kunt *et al.,* 2014; Demirgüç-Kunt *et al.,* 2013; Allen *et al.,* 2012; Kamath, 2010; Cull & Scott, 2010; Ramji, 2007)

The government and RBI's ambitious financial inclusion plan is not yielding desired results yet as most of the programmes including no- frills accounts are ineffective. Only

three percent of No-frill accounts are operational. (Skoch development, 2011). Out of the 5000 new branches that were opened in 2011 only 21 percent are in rural areas, and the number of urban families covered under the no-frill account are twice than that of rural households (Economic Times, 2011). In spite of having a reasonably large number of financial institutions, many states hold-up woefully after in financial inclusion, as measured by percentage of households with outstanding debt. Rural households in some states exhibit a bias towards non- institutional sources of credit. Increased number of institutions in such states is unlikely to have any significant impact on financial inclusion, unless it is accompanied by other measures. Land reforms for reasonable land distribution and transparent landholding records can play a prodigious role in increasing access to institutional credit in rural India. (Kamath and Sandstorm, 2010).

beyond the basic adoption of banking services, usage focuses more on the permanence and depth of financial service and product use(Hannig and Jansen, 2010) Usefulness, social norms and social risk, are the factors that influence the intention to adopt mobile banking services the most. Ease of use has a stronger influence on female respondents than male, whereas relative advantage has a stronger effect on perception of usefulness on male respondents. (Rios and Riquelme, 2010)

The main reason for rejecting the mobile banking services were explored using multidimensional scaling, and the chi-square tests were used to measure differences between socio-demographic variables (Laukkanen *et al.* 2010). Financial literacy eases decision making procedures, which improve the savings proportions, credit worthiness of potential borrowers, and resulting into better access and use of financial services by the poor (World Bank, 2009; OECD, 2009). Perception of cost, risk, low perceived relative advantage and complexity were revealed to be the main reasons behind the reluctance to use the mobile banking service. The influence of other background factors is less evident. (Gill *et al.* 2006). Impact of "person-related" service characteristics (empathy, politeness, and similarity) and "offer-related" service characteristics (customization, competence, and promptness) by examining business client trust in their current bank service representatives based on the length of the relationships with their banks (Coulter and Coulter, 2002).

II.4. Effectiveness of Financial Inclusion Programme

Financial inclusion can lead to economic development. (Rastogi & Ragabirunta, 2018). Financial inclusion can increase growth through the reduction of poverty (Cull *et al*., 2014). Economic growth follows financial inclusion, boosting business opportunities will definitely increase the gross domestic product, which will be reflected in our national income growth". (Reddy, 2012). Impact factors of financial inclusion, viz-a-viz change in income, change in saving, living standard, level of indebtedness, improvement in occupation/business and level of banking habits. (Kumbher, 2012). In this regard, a developed financial system is important in achieving economic development and poverty alleviation (Beck *et al.*, 2000; Beck *et al.*, 2004; Honohan, 2004a; OECD, 2012). A positive correlation exists between financial development and economic growth. Current development theories suggest that greater financial inclusion can have a positive impact on the lives of the poor. (King *et. al*, 1993; Beck *et. al*, 2000, 2004; Levine, 2005 and Demirgüc-Kunt *et. al*, 2008)

Access to a well-functioning financial system, by creating equal opportunities, enables economically and socially excluded people to integrate better into the economy and actively contribute to development and protects themselves against economic shocks.(Swamy, 2014).

Micro-credit customers' advantage from increased access, improved services and in due course improved prices due to competition (Porteous, 2009)

There is growing confirmation that financial inclusion leads to poverty eradication and inequality and hence is crucial for inclusive economic growth (Bruhn and Love, 2014; Beck *et al.*, 2007a; Beck *et al*., 2004; Clarke *et al.* 2003). A few of the literature has explained some mixed results in contradiction to the time-honoured view point that financial intermediation programs aid in economic upliftment of the poor families owing to women participation (Kabeer, 2001; Montgomery & Weiss, 2011; Mosley, 2001; Navajas, *et.al.,* 2000) which enthused a detailed scrutiny of the available literature.

Financial services and instruments play an important role in the process of domestic economic development. While some scholars have focused on the interaction of large or small enterprises, the most important consumers of financial products are the

households due to their influence the scale and asset mix of finance.(Rusu, 2017)**.** Urban oriented Commercial Banker cannot easily understand or appreciate the inherent inadequacies of the rural society. RRBs have comparative advantage over Commercial Banks in terms of readily available extensive rural base, access to low income groups, good rapport built over the years with small borrowers, and rural oriented human resource base. (Thingalaya, 2012)**.** Inclusion goes beyond mere access and for including institutions such as Post Offices, Co-operatives, SHGs and MFIs, that provide appropriate and adequate services to the vulnerable people in the inclusion framework. (Srinivasan, 2012)**.** Economic growth follows financial inclusion, boosting business opportunities will definitely increase the gross domestic product, which will be reflected in our national income growth. (Reddy, 2012). There is direct and indirect association between financial deepening and economic growth (Barajas *et al.*, 2012; Masoud and Hardaker, 2012; Berentsen and Shi, 2008; Rousseau and Wachtel, 2005; Ndebbio, 2004).

Financial inclusion will help strengthen financial deepening and enable resource mobilization for extending and broadening credit leading to economic development and accelerate growth. (Banerjee, 2011). There is an urgent need to link all households that are excluded from formal financial services for inclusive growth. (Cheriyan, 2011). The act of nationalization of banks way back in 1969 has contributed towards achieving inclusive growth within the country. Despite nationalization and massive branch expansion, the challenges of financial inclusion could not be fully met by the banking sector alone and there is need for identifying new channels to achieve full inclusive growth in the country. (Rao, 2010). Through graduated credit, the attempt must be to lift the poor from one level to another, so that they come out of poverty. There is a need for co-ordinated action between the government and others to facilitate access to bank accounts among the financially excluded (Swamy and Vijayalakshmi 2010). Financial inclusion is needed for rural and downtrodden masses that are the future growth engine of the economy. Government initiatives to support financial inclusion needs to be backed by progressive policies. This can be achieved only through public private partnership model powered by ubiquitous technologies (Agarwal. 2010).

Financial inclusion is sine qua non for the empowerment of rural households and it is possible through branchless banking in villages. Existing technology and regulations are not congenial to prospective rural savers who have marginal savings potential. Better technology and more flexible regulations are necessary for efficient mobilization of micro savings. (Barik, 2010)

Financial inclusion aids low-income households to access basic financial services which, in turn, fosters their financial autonomy and thus intensifies economic growth. (Sarath Chandra and Manju, 2010; Jalan, 2009; Beck et al., 2007; and Sarma and Pais, 2008).

Financial inclusion has far reaching consequences, which can help many people come out of abject poverty conditions. The financial markets must act responsibly and ensure that the spirit of financial inclusion is not breached in the future. (Agarwal, 2008). Critics of Indian regional rural banks and their prevailing culture have argued that a product-focused rather than a market-oriented approach to new service development is responsible for their inadequate performance. (Megicks *et al.* 2005). The crucial factor in deciding if the banking industry is working effectively, within correct economic boundaries, is whether this inclusion agenda is effective and actually helping excluded people. If people are unaware of what the banking industry is doing, then their work is ineffective. If the banks are not regulated in a way which promotes good financial inclusion practice, then this too is ineffective (Chambers, 2004). Financial development is positively correlated with enhanced economic growth. Sensitivity analysis of the model indicates that the empirical findings are invariant to the inclusion of other variables often cited as determinants of economic growth. (Hunter and Hao, 1997).

Effectiveness of financial inclusion from demand side were measured using its dimensions namely, asset creation, income generation and employment generation. Detailed reviews regarding these dimensions are given below;

II.4. a. Asset Creation

Financial inclusion programme helps the poor to earn personal assets **(**Chirkos, 2014; Moser & Felton, 2007; Wu *et.al*., 2007; World Bank, 2007; Levine & Levine, 2004; Kamal, 1999). Participation in asset-building programmes generates credit history and

increases credit scores (Birkenmaier *et al.,* 2012). The Self Help Groups help in the social cause of alleviation of poverty, increase of sustainability, reduction of vulnerability, improvement of capacity building and help the weaker sections to build assets (Venkataramany and Bhasin, 2009). Hoarders gained full access to the saved funds and accumulated funds can be used to buy a house, fund post-secondary education and start a small business (Boshara, 2005; OECD, 2003). Assets offer a shield against poverty, since the assets are not immediately consumed but are a stock that bears and generate economic returns (Ford Foundation, 2004).

II.4. b. Income Generation

An access to a well-functional, formal financial system generates opportunities for economically disadvantaged people to participate in income-generating activities (Swamy, 2014). Through accessing credit, beneficiaries of FI programme can generate income (Pal & Pal, 2012; Ellmer, 2012; Mugabi, 2010; Danish Refugee Council, 2008; World Bank, 2007; Parvin *et. al*., 2005). There is a positive relationship between access to credit and productivity (Akudugu, 2016; Ciaian *et al*., 2012). The income level has a positive impact on both credit and deposit penetrations. (Kumar, 2010).

II.4. c. Employment Generation

There is a statistically significant impact of financial inclusion on women entrepreneurship (Goel and Madan, 2019). Financial inclusion is an effective way for combating poverty, unemployment and inequality (Lal, 2018). Enlightening the financial access of low-income households by opening new branches significantly reduces the unemployment rate and increases income levels. (Bruhn and Love, 2014). Financial inclusion programme helps the poor to create self-employment (Holmes *et al.,* 2013; Al-mamun *et al.,* 2012; Kamath, 2010World Bank, 2007). Access to finance is a pre-requisite for employment, economic growth, poverty reduction and social cohesion, as it provides them an opportunity to have a bank account, to save and invest, to insure their homes and enable them to break poverty (Rahman, 2009; Chakrabarty, 2011).

II.5 Financial Literacy

Access to financial services and the ability to manage money effectively can obviously make a difference to a poor person's material wellbeing (Bongomin *et al*., 2019). Financial Literacy acts as a moderator for the access and usage of financial inclusion

programme (Chen & Jin, 2017; Adomako *et.al.*, 2016; Friedline & West, 2016; Kennedy, 2013; Nye and Hillyard, 2013; OECD, 2013; Sreenivasan, 2012; Chandra, 2012; Cril, 2012; Falahati *et.al.*, 2012; Ministry, 2011; OECD, 2011; & Oecd, 2011; Turnham, 2010; Hung *et.al.*, 2009; Gouws & Shuttleworth, 2009; Nye *et.al.*, 2009). Low levels of financial literacy may prevent the take-up of more complicated financial products and financial literacy significantly moderates in the relationship between access to finance and growth of SMEs in developing economies (Bongomin *et al.*, 2017) and financial literacy helps individuals to make intelligent financial decisions and choices, which develops access and use of financial services (Okello *et al.*, 2016).

Development agencies have documented the importance of financial literacy programs in promoting access to financial services, among poor households in developing countries (World Bank, 2014). Financial literacy is intended to facilitate access and, where appropriate, encourage widening use of pertinent financial products and services for the benefit of poor individuals (Atkinson and Messy, 2013). Financial inclusion and financial literacy are two elements of an integral strategy; while financial inclusion provides access and financial literacy provides awareness" (Subbarao, 2013). Individuals with financial literacy skills incline to make better financial decisions with fewer management mistakes than who are financially illiterate. (Njoroge and Gathungu, 2013). Financial literacy significantly moderates in the relationship between access to finance and growth of SMEs in developing economies

Financial information and education were the vital aspects of success of any financial inclusion initiatives and government plans (Kumar, 2013; Chakravarty and Pal, 2013; Bhanot et al., 2012). Financial literacy programs and interventions enhance the take-up of products such as savings accounts and insurance. It encourages savings by increasing alertness and knowledge of financial products, plus influences saving activities and financial planning among the poor (Xu and Zia, 2012).

Financial Literacy and Credit Counselling Centres (FLCCs) are the important requirement for the economically active poor people for the effective financial inclusion. (Tanksale, 2012). Providing financial literacy is an important consideration for inclusive growth. (Cheriyan, 2011). Poor households can progress their financial knowledge and skills, which empower them to make wise financial decision and choices over

associational links (Cohen and Nelson, 2011). Households with higher levels of financial literacy were more likely to plan for retirement, and consequently, arrive at it with substantially more assets than non-planners (Lusardi and Mitchell, 2011).

Financial literacy is an important adjunct for promoting financial inclusion and ultimately financial stability. The focus of any discussion on financial literacy is primarily on the individual, who usually has limited resources and skills to appreciate the complexities of financial dealings with financial intermediaries on a day-to-day basis. (Bihari, 2010). The Banks/RBI should conduct awareness camps about Financial Inclusion to the bank staff. And also banking to the poor is not poor banking. There is lot of potential to get business from the people at the bottom, as amply shown by the self-help group movement in the past ten years or more. (Rao, 2010). Individuals provided with information on the cost of payday borrowings reduced their probability of repeating their payday loans (Bertrand and Morse, 2010).

Financial literacy helps the poor by empowering and educating them so that they are knowledgeable about finance in a way that is relevant to their lives (World Bank, 2009). Financial literacy that enriches ability to make well-informed financial decisions, helps the poor to manage their financial affairs. Thus, it has significant implications on financial security and standard of living of poor households (OECD, 2009) and it can be an important determinant of access to finance (Cole and Fernando, 2008).

II.6 Banking Products and Services

The positive impacts of financial inclusion and deepening on poverty reduction rise the need for promoting breadth and depth of public sector banks that could have a synergistic effect on poverty reduction in India (Inoue, 2018). It is predictable that *Bank Penetration* would be positively connected with the household use of formal financial services (Pal & Pal, 2012). and the banks should diversify their product and develop instruments so as to meet the aspirations of borrowers and investors in the context of various saving schemes of other financial institutions, post office etc. (Malhotra, 1991). Early in the 1970s, various competitive pressures finally led banks to adopt a marketing concept, both in theory and practice. (Stafford and King, 1983).

From the review of earlier studies summarized above it can be concluded that financial inclusion programme is an opportunity for both Banks (as a business opportunity) and target groups (as economic opportunity). Financial inclusion is integral to the inclusive growth process and sustainable development of the country. However, the financial inclusion models that banks come up with should be replicable and viable across the country. Investigation revealed that only a few attempts were done about the effectiveness of financial inclusion programme. Hence a detailed study on the effectiveness of financial inclusion programme in Kerala from both sides i.e., from the supply side (banks) as well as from the demand side (target groups) is necessary for the time being. The financial inclusion index for measuring effectiveness of FIP were identified through the detailed literature survey and the study also focuses to suggest measures for improving the procedures of Financial Inclusion programme for the proper implementation.

Chapter III
Research Methodology

This chapter on research methodology tries to give a detailed explanation regarding research design, type of survey conducted, tools used for the survey, data collection methods, as well as the terms and the variables which go into the formulation of basic conceptual framework of the study. The hypothesised relationship between accessibility to usage, as well as usage to asset creation, income generation and employment generation is depicted in this chapter based on the learning deduced from the literature.

III.1 Rationale of the study

Financial inclusion programme is offered by RBI as an opportunity for banks (as a business opportunity) and as a welfare activity for the target groups (economic opportunity). It is integral to the inclusive growth process and sustainable development of the country. Still, the financial inclusion models that banks come up with should be replicable and viable across the country. Therefore, there is a need to study the financial inclusion programme practiced by commercial banks and also to study the said programme as opportunities and constraints for the target groups in Kerala. The study also focuses to suggest measures for overcoming the constraints in the implementation of the programme.

Research in financial inclusion from the demand side can help governments and Banks to craft policies and regulations that enable the introduction of more customer-responsive products and service delivery, thus facilitating responsible uptake of services. The study is significant from both an application perspective of banking as well as from an academic angle. Improving poor people's access to finance boosts growth and reduces income inequality and poverty in the country. The prominence of financial inclusion is clear from the foresaid statement.

Therefore present study focuses on the effectiveness of FIP from both sides i.e., from supply (banks) side as well as demand side (beneficiaries') perspective.

III.2 Statement of the Problem:

Kerala stands unique among Indian States with a consistently higher level of human development comparable with that of many advanced countries but with a much lower per capita income. RBI recently came up with Financial Inclusion Index and Kerala topped the index. Statistically a person is included when he or she opens an account in the formal financial sector. But the real financial inclusion happens when there is any change in their life. That means through graduated credit, the attempts must be to lift the poor from one level to another.

Majority of the research in the area of financial inclusion is focusing on the problems of individuals who are excluded and measures for reaching to them. As a result there come lots of schemes to reach the poor. However, most of the efforts from the government and banks have been in the direction of opening of accounts, which is only a technical step in the process of financial inclusion. Statistically, a person is said to be financially included when he just opens up an account in the formal financial sector, but actual financial inclusion happens only when they have improvements in their economic position. As a policy it is very convenient to the vulnerable group to include and improve their economic status. There has not been any comprehensive study done to look at the financial inclusion process and to what extend it is achieving its overall objectives going beyond mere figures. Thus it is very necessary to check the demand side perception of financial inclusion program i.e., whether the financially included get the benefits through the scheme. Therefore present study gives more stress on whether financially included weaker section gets developments through the scheme from the perception of effectiveness of the FIP.

III.3 Objectives

Based on the conceptual focus highlighted in the earlier sections, this study proceeds to inquire into the following set of objectives and test the hypothesis framed as under

1. To study the factors associated with Banking policies and implementation of Financial Inclusion Programmes.
2. To study the extent of accessibility, availability and usage of formal financial services (savings, micro credit, remittance, payments and micro insurance) by the weaker sections.
3. To study the factors associated with the beneficiaries in making use of the financial services to meet their specific needs.
4. To study the effectiveness of Financial inclusion Programme in the holistic approach.
5. To make broad suggestions to improve financial inclusion programme in Kerala.

III.4 Conceptual Framework

Sl. No	Variable for the study	Descriptions
1	Demographic variables	Background
2	Socio-economic variables	Background
3	Accessibility	Independent
4	Usage	Independent
5	Financial Literacy	Moderator
6	Effectiveness of financial inclusion: 1. Asset creation 2. Income generation 3. Employment generation	Dependent variable Dimensions of dependent variable

III.5 Research Hypothesis

H1: There has been a significant relationship between accessibility and usage

H2: There has been a significant improvement in the income of the beneficiaries due to credit support of the scheme

H3: There has been a significant improvement in the asset position of the beneficiaries due to credit support of the scheme

H4:There has been a significant improvement in the self-employment of the beneficiaries due to credit support of the scheme

H5:There has been significant interaction effect of financial literacy between accessibility and Usage.

III.6 Definitions (Theoretical and Operational)

III.6.1 Financial Inclusion

Theoretical Definition-

1. "A financial sector that provides access for credit for all bankable people and firms and saving and payment services to everyone. Inclusive finance does not require that everyone is eligible to use each of services but they should be able to choose them if desired". – ***United Nations (2006*).**

2. "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. - ***Rangarajan committee*** *(GoI, 2008) - the committee on financial inclusion.*

3. **"**Expanding access to financial services, such as payments services, savings products, insurance products, and inflation-protected pensions.**" – *(Raghuram Committee, 2008)*** Committee on *Financial Sector Reforms (CFSR).*

4. "Full financial inclusion is a state in which all people who can use them have access to a full 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, and reach everyone who

can use them, including disabled, poor, rural, and other excluded populations."- (***Centre for Financial Inclusion, 2012)***

Operational Definition – Financial Inclusion is the process of ensuring access to various financial services for the needy at speedy and cost effective manner without any hindrance, and through which they have effectiveness. Financial services include savings, credits, and insurance services.

III.6. 2 Accessibility

Theoretical Definition

1. Accessibility as being similar to reachability and convenience (While Pirie, 1981).
2. The ability of people to reach and engage in opportunities and activities (Farrington and Farrington, 2005).

Operational Definition

From Demand Side

Accessibility refers to individual's ability to utilize the available formal financial services. It includes accessibility to banking outlet/ATM, technology, banking products, financial services etc.

Accessibility perception is measured by using eight items in a five point scale.

From Supply Side

Accessibility means penetration of banking system given by the number of bank accounts per 1000 population.

III.6. 3 Availability

Theoretical Definition- availing of banking outlets (offices, branches, ATMs and so on) (Sarma, 2012).

Operational Definition: (from supply side)

Thus, availability of services can be indicated by the number of bank outlets (per 1000 population) and/or by the number of ATM per 1000 population.

III.6. 4 Usage

Operational Definition

From Demand Side

Usage: Ability of individuals to use formal financial services for meeting their specific financial requirements (need based financial services). It includes the entire range of financial services such as savings, credit, remittances, payments and insurance.

Usage perception is measured by using eight items in a five point scale.

From supply Side

Volume of credits plus deposits by the beneficiaries.

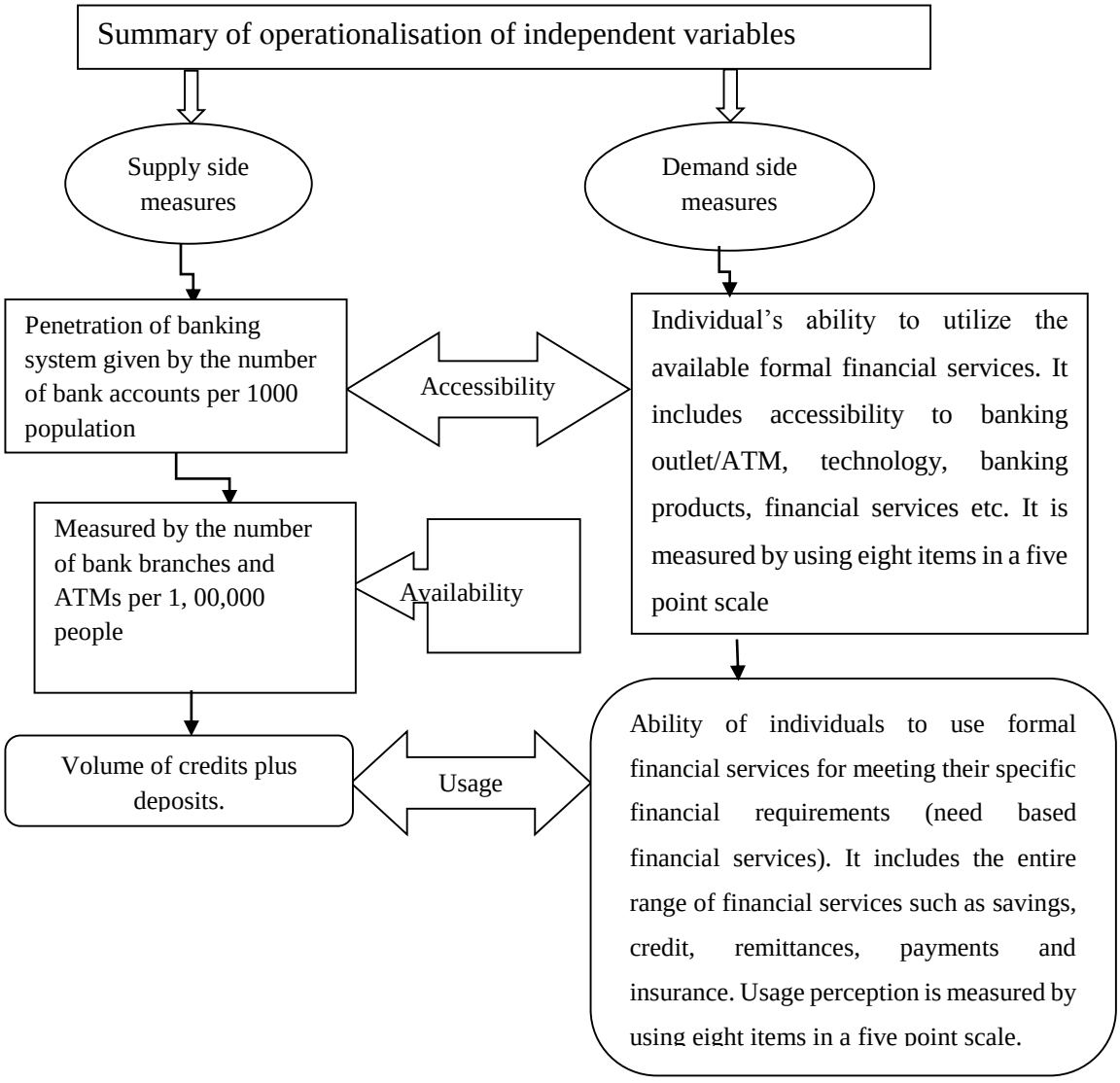


Figure III.1 Operationalisation of Independent Variables

II**I.6. 5 Financial Literacy**

Theoretical Definitions-

1. Knowledge about personal finance management practices (JJFLCC Trust. 2010)
2. "The ability to make informed decisions and take appropriate actions on matters affecting one's financial wealth and well-being" (Piprek et al. 2004)
3. "Understanding how to manage money effectively and having the knowledge and skills to make informed decisions regarding financial matters" (Turnham, 2010)
4. "A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing"(Atkinson and Messy, 2012)

Operational Definition-

Ability of a person to deal with personal finance matters in a cost effective and timely manner.

It is measured by using eight items in a five point scale

III.6. 6 Additional Income Generation

Theoretical Definition

Additional income earned from a specific programme as a beneficiary.

Operational Definition

Generating income through small loans or through savings activity of the financial inclusion programme.

Income generation is measured by using seven items in a five point scale.

III.6. 7 Employment Generation

Theoretical Definition

Generation of additional employment through a scheme other than usual working days.

Operational Definition

Employment generated through the financial inclusion programme in addition to the usual days of employment.

It is measured by using four items in a five point scale

III.6.8 Asset Creation

Theoretical Definition

Asset acquired by the beneficiaries as a result of the programme

Operational Definition

Any personal asset whether it is long-term, medium-term, or long-term purchased by utilizing the money from the account opened as part of financial inclusion.
It is measured by using six items in a five point scale.

III.7 Basic Research Design

The present research has employed both descriptive and explanatory methodologies in the study. The study tries to describe the current phenomenon of financial inclusion programme from the demand side as well as supply side.

Descriptive research was used in the study to make descriptions of the phenomena and characteristics associated with the sample. The study, using a sample survey method, tried to understand the customers' perceived likelihood of considering accessibility, and usage of formal financial services as part of the financial inclusion programme among different demographic groups. The study also identified the characteristics of supply side of financial inclusion with respect to these variables. Explanatory research aims to provide a causal explanation of the phenomena. The dominant methodology used in the study was explanatory as the study examined the relationship between independent variables (perception on accessibility, and usage) and various dimensions of dependent variable (asset creation, income generation and employment generation) among beneficiaries of FIP. Hence, from the perspective of purpose of study, the study was descriptive as well as explanatory. The combination of the two allowed not only to describe the phenomena but also to explain the factors that influenced and interacted with it. The research strategy followed was field study as no variables were manipulated and the study was carried out in non contrived settings. From the perspective of time

horizon, this study required only one contact with the study population when all the requisite data could be collected. Therefore, a cross sectional survey was designed for the study.

III.8 Tools of Data collection

III.8.1 Interview Schedule Preparation

A structured interview schedule was used to collect responses from the beneficiaries of financial inclusion programme. The interview schedule was structured and formatted keeping in mind Dillman's (2000) principles of designing interview schedule. The Schedule used in the study is attached in Appendix 1. Closed ended questions were used in the Schedule. With respect to questions and wordings, all the questions were designed to be short, simple and comprehensible, avoiding ambiguous, vague, leading, double barrelled and presumptuous questions. Negative worded questions were avoided to prevent confusion to respondents in answering the questions. Schedule has divided into four parts: First part contains demographic variables, and socio-economic variables. Second part includes questions regarding extent of accessibility, and usage (independent variables). Third part is related with financial literacy (moderating variable) and the fourth part is related with effectiveness of financial inclusion programme. The drafted interview schedule were tested as explained below

III.9 Validity Analysis:

Different validity terms are used to illustrate the various aspects of validity. The initial validity tests namely content validity and face validity were performed for the draft interview schedule as explained below.

III.9.1 Content Validity

In the case of content validity, the evidence is rational, rather than statistical. Content validity can be achieved if the items representing the different constructs of the tool are supported by a detailed review of the pertinent literature. The instrument had been developed on the basis of a detailed review and analysis of the pragmatic literature, so as to ensure the content validity.

III.9. 2 Face Validity

A measure is considered to have 'face validity' if the items are logically related to the purported purpose of the measure. Generally, 'face validity' is ensured if the items are reasonably related to the perceived purpose of the measure (Kaplan and Scauzzo, 1993). The draft pool of attribute items were given to senior professionals from the field of academic and banking sector. They were briefed about the idea and the purpose of pooling indicative items. The experts were requested to scrutinize the questionnaire items and give their impressions regarding the relevance of contents of these indicative items. Based on the feedback from experts, the draft questionnaire items were modified. This resulted in a new fine-tuned interview schedule.

III. 9 3 Discriminant validity

This validity shows that a test of a construct is not highly correlated with other tests designed to measure theoretically different constructs. Campbell and Fiske (1959) introduced the concept of Discriminant validity within their discussion on evaluating test validity.

For establishing the Discriminant validity of scales used in a model, checking is done to find out whether the square root of AVE of a construct is greater than the inter-construct correlation between the construct concerned and other constructs present in the model (Fornell & Larcker, 1981). Discriminant validity can also be checked at the indicator level.

Here, absence of cross loadings of indicators shows Discriminant validity, i.e., indicators should indeed load on their respective latent constructs only. Discriminant validity of the measurement model is evaluated at both construct-level and indicator-level. Discriminant validity is presented first in Table III.1

Table III.1: Discriminant Validity

	access	usage	Fn.ltrc	ast	incm	emp
access	**0.918**	0.449	0.008	0.409	0.349	0.34
usage	0.449	**0.914**	-0.037	0.767	0.722	0.691
Fn.ltrc	0.008	-0.037	**0.897**	-0.051	0.063	-0.072
ast	0.409	0.767	-0.051	**0.936**	0.593	0.585
incm	0.349	0.722	0.063	0.593	**0.93**	0.486
emp	0.34	0.691	-0.072	0.585	0.486	**0.943**

Source: Primary Data

The table depicts Discriminant validity analysis at the construct level for the first stage model. Square root of AVE values of each construct is compared with inter-construct correlations of all constructs. The diagonal entries in the above table are the square root of AVE values of the constructs. These are greater than any inter-construct correlations as shown. Therefore, it is concluded that the measurement model at the first order level possesses Discriminant validity.

Discriminant validity of a model can be assumed if all indicators in a measurement model load heavily on their respective latent factor without any substantial loading on any other factor (Chin, 1998). Table III.2 gives the cross loadings of the latent variables in the 1st stage measurement model. All indicators show loadings higher than 0.6 on their respective latent constructs.

Table III.2 Cross Loadings of Latent Variables

	access	usage	Fn.ltrc	ast	incm	emp
FAC1	**0.915**	-0.108	0.004	-0.059	0.056	0.011
FAC2	**0.941**	0.042	0.036	0.005	-0.02	-0.082
FAC3	**0.912**	0.045	0.005	-0.035	0.003	-0.016
FAC4	**0.929**	0.059	-0.028	0.015	0.001	-0.038
FAC5	**0.915**	0.07	0.009	0.009	-0.024	0.034
FAC6	**0.911**	-0.029	-0.003	0.057	-0.011	0.013
FAC7	**0.934**	-0.007	0.009	-0.004	0.018	0.024
FAC8	**0.884**	-0.076	-0.034	0.013	-0.025	0.058
FUS1	-0.032	**0.903**	0.006	-0.072	-0.046	-0.064
FUS2	0.01	**0.919**	-0.013	-0.1	-0.067	-0.047

FUS4	0.019	**0.926**	0.023	0.101	0.028	0.052
FUS5	-0.007	**0.898**	-0.005	-0.083	0.03	-0.068
FUS6	0.005	**0.918**	-0.021	-0.09	-0.079	-0.081
FUS7	0.011	**0.916**	-0.014	0.032	0.043	0.085
FUS8	0.013	**0.931**	0.031	0.127	0.008	0.041
FUS11	-0.021	**0.9**	-0.009	0.081	0.085	0.081
FL1	-0.007	0.019	**0.924**	0.001	-0.032	-0.031
FL4	0.025	0.059	**0.915**	0.002	-0.048	-0.01
FL6	0	-0.064	**0.904**	-0.009	0.033	-0.019
FL7	-0.025	0.124	**0.878**	-0.135	-0.002	0.011
FL8	-0.014	-0.106	**0.871**	0.036	0.116	-0.008
FL9	0.001	-0.18	**0.872**	0.063	0.016	0.094
FL10	0.003	0.051	**0.892**	0.067	-0.084	0.015
FL11	0.016	0.089	**0.917**	-0.024	0.006	-0.046
IMPCT1	0	-0.084	0.002	**0.938**	0.028	0.011
IMPCT2	-0.029	0.037	0.01	**0.946**	0.005	-0.057
IMPCT3	-0.017	-0.032	-0.017	**0.94**	0.029	0
IMPCT4	0.006	0.01	-0.031	**0.922**	-0.024	0.055
IMPCT5	0.046	0.037	-0.014	**0.93**	0.002	-0.011
IMPCT6	-0.006	0.032	0.049	**0.938**	-0.04	0.004
IMPCT7	-0.059	0.21	0.024	-0.107	**0.877**	-0.089
IMPCT8	0.034	0.248	0.016	-0.101	**0.914**	-0.118
IMPCT9	-0.037	-0.008	-0.011	0.047	**0.945**	0.022
IMPCT10	0.011	-0.059	-0.008	0.046	**0.95**	0.003
IMPCT11	0.054	-0.166	0.03	0.047	**0.932**	0.05
IMPCT12	-0.021	-0.074	-0.029	0.041	**0.944**	0.034
IMPCT13	0.016	-0.13	-0.018	0.017	**0.945**	0.09
IMPCT14	0.014	0.082	0.003	-0.007	-0.027	**0.934**
IMPCT15	0.005	-0.099	-0.014	0.044	0.016	**0.943**
IMPCT16	0.004	0.009	-0.005	-0.042	-0.022	**0.944**
IMPCT17	-0.023	0.008	0.016	0.004	0.032	**0.949**

Source: Primary Data

III. 9. 4. Convergent Validity

There are a few measures that are useful for establishing validity and reliability such as Composite Reliability (CR) and Average Variance Extracted (AVE) as given by Hair et al. (2010). The thresholds for these values are:

1. Composite Reliability (CR) value > 0.7
2. Average Variance Extracted (AVE) > 0.5

Convergent Validity can be ensured If CR > AVE, provided AVE > 0.5.

Table 3.2 provides the details of validity measures of the constructs. It was found that all the values of AVE are above 0.5 and the composite reliability values are greater than 0.7

Convergent validity is also assured as the result shows CR>AVE.

Table III.3: Reliability & Convergent Validity of Constructs

Sl No.	Variable Name	CR	AVE	Convergent validity(CR-AVE) $^{+}$ve
1	Accessibility	0.977	0.918	0.059
3	Usage	0.976	0.914	.062
4	Financial Literacy	0.971	0.897	.074
5	Effectiveness of financial inclusion			
	a) Asset creation	0.977	0.936	.041
	b) Income generation	0.978	0.930	.048
	c) Employment generation.	0.970	0.943	.027

Source: Primary Data

III. 10 Reliability Analysis

High degrees of instrument reliability point out that instrument's score is stable and consistent (Creswell, 2005). High degrees of instrument reliability suggest the occurrence of similar results under rater situations that are comparable, related, or nearly identical (Neuman, 2006). Reliability measures the degree a test produces identical results given similar test conditions (Obayashi, Bianchi & Song, 2003). Out of the several methods to establish the reliability of a measuring instrument, the internal consistency method is supposed to be the most effective one. In this method, reliability is defined as internal consistency, which is the extent of inter – correlation among the items that constitute a scale (Nunnally, 1978). A reliability coefficient called Cronbach's alpha is used to calculate internal consistency (Cronbach, 1951). It depicts the extent to which a tool gives consistent results (Cooper & Schindler, 2003). Posner (1980) reported that Cronbach's alpha above .60 represent satisfactory reliability levels.

Table III.4. Reliability Analysis of Different Variables of the Study

Sl. No	Factors	No. of Items	Cronbach's alpha
1	Accessibility	8	0.973
3	Usage	8	0.971
4	Financial literacy	8	0.965
5	Effectiveness of financial inclusion programme	17	
	1. Asset creation	6	0.972
	2. Income generation	7	0.974
	3. Employment generation	4	0.958

In the current study, the reliability was tested by computing Cronbach's alpha for all the factors as well as for the entire set. The values of Cronbach's alpha for various factors are given in the Table III.4. As seen from the table, all the factors had the Cronbach's alpha value above .70, which testified the reliability of the entire set.

III. 11. Scope of the Study

The scope of the study defines the boundaries of the research. The four elements characterizing the scope of the study are defined as below:

Population

Hundred and twenty villages were identified by the State Level Bankers Committee, Kerala for performing financial inclusion programmes in Kerala. (These villages are called road-map villages). Therefore, road-map villages are the population for the study. Detailed list is shown as appendix-1I.

Place of Study

Kerala (Palakkad, Kannur and Idukki)

Period of the study

The research interest was to analyze the present scenario regarding the objectives. The period of data collection was from September 2015 to February 2016.

Data Sources

Major source of data was primary data collected from those who have opened account as part of Financial Inclusion Programme.

For review of literature, secondary data related to the variables of study (Accessibility, availability, usage, financial literacy, asset creation, income generation and employment opportunity) from social science research networks, various international and national journal articles, SLBC Websites, RBI websites, and CFI website were considered. Books from CDS Trivandrum Library, School of Management Studies library and Department of applied economics library of CUSAT were also consulted.

III. 12 Data Collection

a. Kannur, Palakkad and Idukki districts were taken as representative on the basis of performance of financial inclusion programme in Kerala.
b. Bank managers of the SLBC, Lead Bank were contacted with a request to take part in the study.
c. Data collection was coordinated by the researcher with the help of internal coordinators identified in each team.

III. 13 Selection of Unit of Observation

Individual beneficiaries of Financial Inclusion programme, that means those who are opened account in the formal financial sector as parts of financial inclusion programme were the unit of observation. Beneficiaries were selected through following sequences:

- **Step 1.** Selected six villages (five percent of total villages) from the list of hundred and twenty road map villages from three districts – Palakkad, Kannur and Idukki- based on the performance of financial inclusion programme.

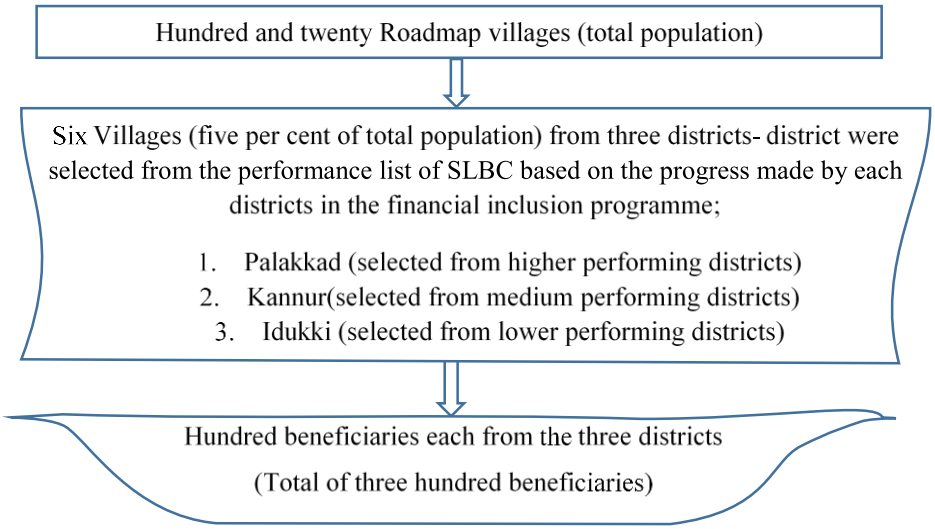
Palakkad from higher performer districts, Kannur from medium performer group and the lower performer group of districts, Idukki district were selected.

Palakkad District was selected from the higher performing districts (Ernakulum, Thiruvananthapuram, Thrissur, Palakkad) Kannur District was selected from medium performing districts (Malappuram, Kannur, Kottayam, Alappuzha, Kozhikode, Kollam) group and from the lower performing districts (Wayanad, Idukki, Pathanamthitta, Kasaragod) Idukki District was selected. Selection of two villages each from these three selected Districts was done to get actual representation of the entire population of Kerala

- **Step.2.** 50 members from each selected villages were selected based on the assumption that more than thirty can be considered as large sample as per the assumption of Statistics, which constituted three hundred samples for the study.
- Step. 3. List of beneficiaries were collected from the corresponding Banks (respective Banks allocated by the SLBC, Kerala) for the final selection of respondents.
- Step 4. From the source list available, respondents were selected randomly.

Snap short of Sample selection- a pictorial representation

Figure: III.2. Pictorial Representation of Sample



III. 14. Sampling Method

Beneficiaries were located all over Kerala. Therefore Multi-stage random sampling method was applied. However, the study was designed to find out the effectiveness of financial inclusion programme in Kerala. Multi-stage random sampling method was used to include all types and category of beneficiaries. Using the services of concerned Bank managers, addresses of beneficiaries were collected and responses were made based on the information given by the respondents.

III. 15 Sample Size

Three hundred sample respondents were selected i.e., hundred beneficiaries from each selected sample districts.

III. 16 Statistical Analysis and Validation

The statistical package SPSS was used for data editing, coding and basic analysis. MS Excel was used for calculating Financial Inclusion Index (FII) .FII was used for analysing the extent of accessibility, availability and usage. This index was first developed by Sharma and Paise in 2008 based on the dimension index of UNDP. It is constructed as a multidimensional index that captures information on various aspects of financial inclusion, such as banking penetration, availability of banking services, and usage of the banking system. The index of financial inclusion incorporates information in these dimensions in one single number lying between zero and one. Zero denotes complete financial exclusion and one indicates complete financial inclusion in an economy. A dimension index for each of these dimensions has been fixed first computed by using the dimension equation developed by UNDP. After calculating the value of each individual dimensions, apply the formula of finding FII. Then we will get the index of each district. (Kodan and Chhikara, 2013). MS Excel was used for doing the analysis based on FII.

The fifth chapter discusses in detail the analysis of data using FII

The integrative model was tested for studying effectiveness of financial inclusion programme from the demand side perspective using Structural Equation Modeling with WARP PLS 5.0 for the analysis of the data and validation of various models. In this study, PLS-SEM is adopted because the investigated phenomenon is comparatively new

and measurement models needed to be newly developed and also it is for prediction purpose.

III. 16. 1. Data Analysis Strategy

The quality of the data collected from the sample was first ensured. Exploratory factor analysis to define the underlying structure among variables was carried out and structural equation modeling using Warp PLS was done to study the linkages among the variables. These are explained in the sections below.

Secondary data were used for measuring the supply side FIP and the technique used (FII) were based on the dimension index developed by the UNDP.

III. 16. 2. Data Cleaning

Before analysis was carried out, the quality of data collected was assessed so that results become generalisable. The beneficiary responses were checked for missing values. To ensure that only responses from 'those who are opened account as part of the financial inclusion programme were considered for analysis, the data entered on Excel was tested to filter out beneficiaries who did not satisfy the filter question criterion. Outliers were identified by testing on SPSS 20 and Warp PLS 5.0. The data were also standardized by the software before analysis was carried out. **FII** were calculated with the latest available data.

III. 16. 3 Exploratory Factor Analysis

To identify the factors that make up perceived accessibility, and perceived usage, financial literacy perception and effectiveness of financial inclusion programme and to reduce the indicators that form the dimensions, Exploratory Factor Analysis was carried out in SPSS 20.0. Hair, Black, Babin and Anderson (2009) summarized several statistical assumptions for factor analysis which include linearity, normality and homoscedasticity (i.e. the assumption that dependent variable exhibits equal levels of variance across the range of predictor variables). However, they argued that these statistical assumptions do not have to be met if the data matrix has sufficient correlation to produce representative factors and justify the application of factor analysis. To determine the adequacy of correlations in the data set for factor analysis, the approaches include: visual examination of the correlation matrix; inspection of the anti-image

correlation matrix, Barlett's Test of Sphericity and Keyser Meyer Olkin Measure of Sampling Adequacy.

For factor extraction when there are a large set of variables, it is recommended that factor extraction be done by extracting combinations of variables that explain greatest amount of variance (Hair et al., 2009). The selection of the method of factor rotation (between common factor analysis and components analysis) is based on two criteria: (1) the objectives of the factor analysis and (2) the amount of prior knowledge about the variance in the variables (Hair et al., 2009). The Component Factor Analysis method, also known as Principal Components Analysis, was used in the study as it is most appropriate when the primary concern is data reduction focusing on the minimum number of factors needed to account for the maximum portion of the total variance (common, specific and error variances) represented in the original set of variables. To decide on the number of factors to extract, the latent root criterion technique was used. The rationale for the latent root criterion is that any individual factor should account for the variance of at least a single variable if it is to be retained for interpretation (Hair et. al., 2009). With component analysis only the factors having latent roots or eigen values greater than 1 are considered significant and using the eigen value for establishing a cut off is most reliable when the number of variables is between 20 and 50. The scree test was also used to identify the number of factors that can be extracted before the amount of unique or specific variance begins to dominate the common variance structure.

Computation of a factor matrix can be rotated orthogonally or obliquely; orthogonal being the simplest case of rotation in which the axes are maintained at 90 degrees. The varimax procedure in orthogonal approach maximises the sum of variances of required loadings of the factor matrix and gives a clearer separation of the factors (Hair et al., 2009). The varimax rotation was used in this study. In the interpretation of factors, factor loadings greater than 0.5 were considered as factor loadings 0.5 or greater are considered practically significant (Hair et al., 2009).

III. 16.4 Structural Equation Modeling

Structural equation Modeling (SEM) is a confirmatory technique used to determine whether the model developed for the research is valid for data and is a combination of

confirmatory factor analysis and path analysis. Since the study required the hypothesized model to be tested for the best-fit of the data, structural equation modeling was considered the appropriate analysis method.

Structural Equation Modeling includes a number of statistical methodologies meant to estimate a network of causal relationships, defined according to a theoretical model, linking two or more latent complex concepts, each measured through a number of observable indicators. The term structural equation model refers to both the structural and measurement model together.

In a structural equation modeling (SEM) analysis, the inner model (structural model) is the part of the model that describes the relationships between the latent variables considered in the model. The outer model (measurement model) is the part of the model that describes the relationships between the latent variables and their indicators. Therefore the path coefficients are inner model parameter estimates whereas weights and loading are measurement model parameter estimates depending on whether the measurement model is formative or reflective. Warp PLS 5.0 estimates enable evaluation of measurement model as well as structural model simultaneously.
All hypotheses were tested using structural equation modelling in Warp PLS 5.0. The model fit with the data was assessed. The path coefficients and associated p values were obtained.

III. 16.5. Partial Least Squares Approach

For the analysis of the research model, a variance based approach or Partial Least Squares (PLS) approach was adopted in this study. Unlike covariance based approach, the PLS approach, introduced by H. Wold in 1975, focuses on maximizing the variance of the dependent variables explained by the independent ones instead of reproducing the empirical covariance matrix (Haenlein & Kaplan, 2004). It is an iterative algorithm that separately solves out the blocks of the measurement model and then, in a second step, estimates the path coefficients in the structural model. Therefore, PLS-based Structural Equation Modeling is claimed to explain at best the residual variance of the latent variables and, potentially, also of the manifest variables (indicators) in any regression run in the model (Fornell & Bookstein, 1982).

The relationships among variables associated with natural and behavioural phenomena are usually nonlinear, with U-curve and S-curve relationships being particularly common (Kock, 2012). Warp PLS 1.0 introduced in 2009 is a powerful Partial Least Squares **(**PLS) based SEM software that identifies nonlinear or "warped" relationships among the latent variables (hence the name of the software) and estimates the path coefficients accordingly. The Warp PLS 5.0 software released in 2015 was used in the study. The Warp5 PLS regression algorithm tries to identify a relationship between latent variables defined by a function whose first derivative is a U-curve and, if that relationship exists, the algorithm transforms (or "warps") the scores of the predictor latent variables so as to better reflect the U-curve relationship in the estimated path coefficients in the model. The warping takes place during the estimation of path coefficients, and after the estimation of all weights and loadings in the model. PLS-based Structural Equation Modeling has several key advantages over covariance-based Structural Equation Modeling. It has the advantage that it involves no assumptions about the population or scale of measurement (Fornell & Bookstein, 1982) and therefore works without assumptions about the distribution and with all types of measurement scales. The presence of formative indicators in the model can lead to severe identification problems in covariance based Structural Equation Modeling (MacCullum & Brown, 1993). The PLS based approach can be used for models with either reflective, formative or both types of indicators as it does not create such problems (Fornell & Bookstein, 1982).

III. 17. Limitations of the Study

1. Effectiveness of financial inclusion programme from supply side is measured by actual figures, but demand side is measured using perceived values. Therefore, comparison of results was not possible.
2. Limitations of sampling study cannot be avoided in the present study also.
3. Longitudinal study could be better explained the phenomenon as growth comes gradually.

III. 18. Chapter Summary

The chapter explained various aspects of research methodology used in the study, and outlined the conceptual model prepared based on literature review. It also explained the preparation of interview schedule, which was edited by experts to improve its content and face validity. The chapter also outlined the principles underlying the design of the study and the operational definitions of independent and dependent variables used. The details regarding the measurement of validity of the constructs used, data sources, sampling method used, and the statistical tools that are made use of are also brought out in this chapter. Finally chapter gives the summary of a scientific research has done in the field of social science.

The chapter also throws light on the format of the interview schedule, the steps and methods employed for analysis of data and the statistical tools used have also been discussed. Structural Equation Modeling has been considered the appropriate analysis method for the study. Partial Least Squares based Structural Equation Modeling using Warp PLS 5.0 has been used in the study.

Financial Inclusion Index was also used for analysing the extent of accessibility, and extend of usage to get the result of holistic approach of FIP. This index was first developed by Sharma and Paise in 2008 based on the dimension index of UNDP. And it is now a widely accepted tool for measuring financial inclusion used by World Bank, Reserve Bank and other monitory policy holders all over the world.

The next two chapters discusses in detail the analysis of data.

Chapter IV
Precision and Validation of Measurement Models

This chapter explains the development and validation of measurement models which explains the relationship of dependent variable and independent variable and the effect of moderation of financial literacy, between usage and effectiveness are tested and reported.

IV.1 Introduction

Scales for measuring Independent variables used in the study from the demand side were not developed in the literature precisely. Therefore, scales for measuring 'perceived accessibility', and 'perceived usage' were developed by the using the items developed through literature survey. Besides, suitable measurement scale items under each of the sub dimension was recognized by using Exploratory Factor Analysis (EFA) and validated through Confirmatory Factor Analysis (CFA) method. Two different approaches, i.e. use of same sample set and two different sample sets, are seen in confirming the factors explored using EFA method. Jan-Willem and Willem A. (2001) used single sample for confirming measurement model for EFA, and CFA. Bollen (1989); Conway & Huffcutt (2003) used two different sets of samples for conducting EFA and CFA. In this study EFA and CFA were conducted using same sample sets and got valid results. The details of measurement scale items developed and its validation with the support of model fit indices are given later in this chapter**.**

IV. 2 Items Generation

Items used for measuring perceived accessibility, and perceived usage were taken from the study conducted by the Centre for Financial Inclusion. (*Latortue et.al,* 2013). Although they have successfully generated items for accessibility and usage failed to link with effectiveness of financial inclusion programme. Considering this limitation,

and importance of such study scales for measuring independent variables were developed through the below described steps.

The respondent had to indicate each item on a five point Likert scale (1 – strongly disagree; 2 - disagree; 3 - neither agree nor disagree; 4 - agree and 5 – strongly agree).

IV. 3 Initial Validity Tests

As referred in chapter III, any research instrument should be tested for validity, so that it could be used for correct measurement and meaningful analysis. The initial validity tests, namely content validity and face validity were performed for the pooled item questions as explained below.

IV. 3.1. Content Validity

In the case of content validity, the evidence is subjective and logical, rather than statistical. As indicated earlier, content validity can be ensured if the items representing the various constructs of an instrument are substantiated by a comprehensive review of the relevant literature.

IV. 3.2. Face Validity

The drafted interview schedule was given to five experts from banking industry (SLBC convenor Trivandrum, Lead Bank manger Kannur, Canara Bank manager-Mattanur Branch, SBT manger-Palakkad branch and Network administrator- Canara Bank Calicut circle), and academic experts from CDS Trivandrum, Central University Kasaragode, School of Management Studies CUSAT, Department of Applied Economics CUSAT, Centre for the Study of Social Exclusion and Inclusive Policy (CSSEIP), Rajagiri College of Social Sciences Cochin, and Department of Applied Economics- Kannur university. They were briefed about the purpose of the study and its scope. The experts were requested to scrutinize the interview schedule and to give their impressions regarding the relevance of the contents of the interview schedule. They were requested to critically assess the interview schedule and give unbiased feedback and suggestions with regard to the comprehensiveness/coverage, redundancy level, consistency and number of items in each variable. They had to suggest necessary changes by simplifying, re-wording, removing, replacing and supplementing the items. Based on the feedback

from experts, the researcher modified the draft interview schedule. This resulted in a new interview schedule.

IV. 3.3. Discriminant Validity

The Discriminant validity was ensured for each constructs (already explained in session III.9.3 of Chapter III.

IV.4 Exploratory Factor Analysis: Development of independent variables for measuring effectiveness of financial inclusion programme. (Demand side perspectives)

Since little is known with regard to the factors that influence beneficiaries' Perceptions and responses to financial inclusion programme (FIP) from the demand side perspective, the researcher explored the important dimensions of FIP performance after reviewing the available literature and discussions with senior bank officials in the concerned field (SLBC, Lead Bank of Kannur district, and regional centre of Canara Bank). For conducting Exploratory Factor Analysis (EFA), 140 responses were used initially as part of pre-testing. Final responses were 300 beneficiaries. Statistical Package for Social Science (SPSS) was used to conduct factor analysis. Principal axis factoring method with oblique rotation technique vide direct-oblique rotation was used for exploring factor components since correlations among the items were presumed in this study (Conway & Huffcutt (2003). To arrive at a range of effectiveness of FIP (demand side) performance indicators, experts' opinion were gathered and also based on the various attributes acknowledged in the literature, thirty items were concurrently congregated. The attribute items of FIP which were rated by the respondents in 5 point Likert scale are given below.

Extend of Accessibility

I have access to Services that address my daily needs (Access to affordable and flexible livelihood financing)

I have access to financial services that help me to invest in economic opportunities

I have access to services that address my long-term needs.

I have Access to sound and pragmatic financial services

I have Access to transparent advice on financial services

I have Access to risk mitigation services like health, weather, asset and life insurance etc

I have Access to vulnerability reducing and economic capacity enhancing financial service like warehouse Receipt financing, Value Chain financing etc

I find that I have access on the services which are convenient, affordable, and transparent

I have Access to other financial services like micro pensions.

Extend of Usage.

I have the ability to Use savings products in the bank that promotes thrift

Am able to use of transaction banking to manage remittances

I have the Ability to Use credit facilities to smoothen income variations

I can Use insurances services to guard against uncertainties

I find that the services I use are convenient, affordable, and transparent

Am able to Use post office savings service

I have the ability to Use ATM, Kisan Credit Cards, General credit cards, and other micro credit facilities like SHG-Bank linkage, Agri-gold loan etc. for the financial transactions

Am able to use mobile banking services for my personal banking transactions

I have the ability to Use banking services to receive govt. Benefits

IV. 4. 1 Test of Sampling Adequacy

Exploratory Factor Analysis (EFA) was conducted using 140 responses using structured interview schedule. To check the adequacy of the sample used for factor analysis, Kaiser- Meyer- Oklin (KMO) and Bartlett's test was used, the results of which indicate significant values. KMO value 0.870 (Table IV.1) - higher than the threshold value of 0.6, and the correlation matrix diagonal values in anti-image matrices values (above 0.5)

also indicated good Measure of Sampling Adequacy (MSA). The correlation index among factors was also at moderate level and did not exceed the cut-off point of 0.85 (Kline, 2005).

Table IV.1 Test of sampling adequacy- KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.870
Bartlett's Test of Sphericity	Approx. Chi-Square	3927.283
	Degree of freedom	253
	Significance	0.000

Source: Primary data

IV.4.2 Total Variance Explained and Number of Factors Extracted

Three principal factors were extracted which explained about 74 percent of the variation after extraction sums of squared loadings based on Eigen values above one. Since the method used for the analysis was principal axis factoring, Pattern matrix values were taken for rotated component selection. See Table IV.2 for details.

Table IV.2 Rotated Components with Three Principal Factors after EFA

Pattern matrix		
	I	II
I have access to Services that address my daily needs (Access to affordable and flexible livelihood financing)	.847	
I have access to financial services that help me to invest in economic opportunities	.911	
I have access to services that address my long-term needs.	.812	
I have Access to sound and pragmatic financial services	.876	
I have Access to transparent advice on financial services	.833	
I have Access to risk mitigation services like health, weather, asset and life insurance etc	.892	

I have Access to vulnerability reducing and economic capacity enhancing financial service like warehouse Receipt financing, Value Chain financing etc	.897	
I have Access to other financial services like micro pensions	.855	
I have the ability to Use savings products in the bank that promotes thrift		.879
Am able to use of transaction banking to manage remittances		.879
Ability to Use credit facilities to smoothen income variations		.884
Usages of insurances services to guard against uncertainties		.805
I find that the services I use are convenient, affordable, and transparent		.889
Am able to use post office savings service		.881
I have the ability to Use ATM, Kisan Credit Cards, General Credit Cards, and other micro credit facilities like SHG-Bank linkage, Agri-gold loan etc. for the financial transactions		.771
Usage of mobile and other modes for banking services to receive government benefits		.815

Rotation converged in 5 iterations

IV. 4.3 Interpretation of Factors Extracted

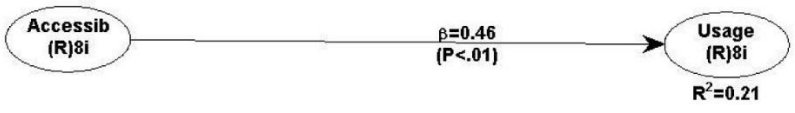
As it was evident from Table IV.2, two principal factor dimensions were extracted. It is very clear from the factor loadings that (table IV.2) beneficiaries have made clear demarcation on attribute items and factor I can be logically interpreted as those underlying attributes which explain the dimension that was closely related to accessibility, aspects during the course of FIP. Whereas, factor II attributes are directly linked with the usage aspects of beneficiaries'. Reported output, after the items having

factor loading less than 0.50 shall be eliminated (Hair et al, 1996). The factor loadings of item *"I find that I have access on the services which are convenient, affordable, and transparent"* has got low loading (less than 0.5) may be attributed to the fact that it is almost similar to the above statements. Under the Usage perception-i.e., in Factor II-also one item deleted because of getting loading less than 0.5. "*Am able to use mobile banking services for my personal banking transactions"*

IV.5 Confirmatory Factor Analysis for validation of the Independent Variables of FIP-Measurement Model

According to Ahire, Golhar and Waller (1996) Confirmatory Factor Analysis (CFA) provides enhanced control for assessing uni-dimensionality than Exploratory Factor Analysis and is more in line with the overall process of construct validation. Uni-dimensionality measures the extent to which all the items in a scale measure the same construct (Venkatraman, 1989). The measurement model was validated by CFA method using the same sample data used for EFA. CFA provide information on confirmation of the measurement model with the dimensions explored by EFA method (Kazi, 2011). This analysis provided clarity on indicator items which are reflected in a given set of factor dimensions and its interrelationships are assessed with the goodness of fit indices. Figure IV.1 explains the hypothesized model followed by summary of model fit indices. It was found that the two explored underlying dimensions namely accessibility, and usage attributes were statistically valid, and further there were no statistical evidences to reject the model.

Figure IV. 1 Independent variable dimensions - measurement model



Source: Field Survey

IV.5.1 Statistical Inferences- Measurement Model

The fit indices of the SEM model validates the factors explored previously from a sample of 140 beneficiaries as shown in table IV.3, there was no statistical evidences to reject the model as per the accepted levels of model fit results (Kazi, 2011). To assess the model fit with the data, it is recommended that the p-values for both the Average Path Coefficient (APC) and the Average R-Squared (ARS) be both lower than 0.05. It is also recommended that the Average Variance Inflation Factor (AVIF) be lower than 5 (Kock, 2012). Below described figures (Table IV.3) provides the model fit indices with p values of the estimated model. It was found that, all the three fit criteria were met and hence it was assumed that the model had acceptable predictive and explanatory quality as the data is well represented by the model.

Table IV.3. Model Fit Summary of Independent Variables

Particulars	**Values**	**Range**
Average path coefficient (APC)	0.46	P<0.001
Average R-squared (ARS)	0.208	P<0.001
Average adjusted R-squared (AARS)	0.205	P<0.001
Q squared co-efficients	0.205	
Average block VIF (AVIF)	1.207	acceptable if <= 5, ideally <= 3.3
Average full collinearity VIF (AFVIF)	1.690	acceptable if <= 5, ideally <= 3.3
Tenenhaus GoF (GoF)	0.630,	small >= 0.1, medium >= 0.25, large >= 0.36
Sympson's paradox ratio (SPR)	1.000	acceptable if >= 0.7, ideally = 1

Source: Primary Data

The above fit indices show indicators best fit the model confirming the independent variables of financial inclusion programme. P value is significant and all other indices confirm the model fitness. The R squared coefficient reflects the percentage of explained

variance associated with the latent variable. The R squared coefficient for usage is 0.208 meaning 21 percentage of the variance in Usage is explained by the dimensions in the study. The Q squared coefficient, which is also known as Stone-Geisser Q squared coefficient, reflects the predictive validity associated with the latent variable. It is recommended that accepted predictive validity in connection with an endogenous variable is suggested by a Q squared coefficient greater than zero (Kock, 2012). The Q squared coefficient as seen in Figure IV.7 is 0.21 and hence predictive validity of the model was also established.

IV.5.2 Test of Multi Co-linearity of Factor Dimensions

Cenfetelli and Bassellier (2009) and Petter, Straub and Rai (2007) recommend that the Variance Inflation Factors (VIFs) of all latent variables be below the threshold 3.3 in the context of PLS-based SEM in discussions of latent variable measurement (as cited in Kock, 2012). VIF is a measure of the degree of vertical collinearity or redundancy among the latent variables that are hypothesized to affect another latent variable. In reflective latent variables indicators are expected to be redundant.

IV.5.3 Internal Consistency of the Items Extracted

Internal consistency of each factor item was checked using SPSS - reliability analysis scale items. Cronbach alpha values obtained for Factor I and factor II were above the threshold limit. As both the values are above the acceptable threshold value of 0.7 (Nunnally, 1978), internal consistency (reliability) of scale items are valid. Moreover, the squared correlation values are also shown significant in the SEM model which indicates scale item consistency.

Table No. IV.4 Reliability Analysis

Cronbach's alpha coefficients	
Accessibility	Usage
0.973	0.972

Source: Primary Data

IV.6 Effectiveness of Financial Inclusion Programme- Development of Measurement Dimensions

Focus in this section was to develop a comprehensive measure to find out the effectiveness of financial inclusion programme. This variable was applied as dependent variable in the conceptual model of this study. Items used for measuring perceived effectiveness of financial inclusion programme (asset creation perception, income generation perception, and perception on additional employment generation) were taken from the study '*Analysis of the Role of Microfinance Banks in Financing of Micro Enterprises in Kaduna State, Nigeria'* (*Mamman,* 2013). Although they have successfully generated items for asset creation perception, income generation perception, and perception on employment generation failed to link with effectiveness of financial inclusion programme. Considering this limitation, and importance of such study scales for measuring dependent variables were developed through the below described steps.

The respondent had to indicate each item on a five point Likert scale (1 – strongly disagree; 2 - disagree; 3 - neither agree nor disagree; 4 - agree and 5 – strongly agree).

The attribute items of effectiveness of FIP which were rated by the respondents in 5 point Likert scale are given below.

I obtained the initial capital through bank loan

I procure the raw materials used from the bank loan

I procure the machinery used from the bank loan

The credit scheme helps me for increasing my asset position

I procure some short-term assets needed by using the formal credits

I procure some medium-term or long-term assets through the loan amount

Bank loan is helpful for me to increasing my livelihood

Bank loan is helpful to fulfil my practical needs

Bank loan is helpful to fulfil my long-term needs

My financial need was positively affected by the services of banks.

I got encouragements for my future needs also from the bank loan

My personal asset position was positively affected by the services of banks

I finance the expenses incurred in distribution of my products/services from the bank loan

The loan amount is helps to generate employment opportunity

Loan amount was useful for providing additional days of self-employment

It was helpful to generate employment for others with my loan amount

I think the employment opportunity leads more people come to use the formal credits that I can pay the wages and salaries of workers from the bank loan

IV. 6. 1 Test of Sampling Adequacy

Exploratory Factor Analysis (EFA) was conducted using 140 responses using structured interview schedule. To check the adequacy of the sample used for factor analysis, Kaiser- Meyer- Oklin (KMO) and Bartlett's test was used, the results of which indicate significant values. KMO value 0.927 (as shown in Table IV.5) - higher than the threshold value of 0.6, and the correlation matrix diagonal values in anti-image matrices values (above 0.5) also indicated good measure of sampling adequacy (MSA).

Table IV.5 Exploratory Factor Analysis: Dependent Variable–Effectiveness of Financial Inclusion Programme- Development of Measurement Model-

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.927
Bartlett's Test of Sphericity	Chi-Square	2599.647
	Degree of freedom	136
	Significance	.000

Source: Primary Data

IV.6.2 Total Variance Explained and Number of Factors Extracted

Three principal factors were extracted which explained about 81 percent of the variation after extraction sums of squared loadings based on Eigen values above one. Since the method used for the analysis was principal axis factoring, Pattern matrix values were taken for rotated component selection. See Table IV.6 for details.

Table IV.6 Rotated Components with Three Principal Factors after EFA

	Factor		
Pattern matrix	**I**	**II**	**III**
I obtained the initial capital through bank loan and		**.850**	
The credit scheme helps me for increasing my asset position		**.866**	
I procure the raw materials used from the bank loan			
I procure the machinery used from the bank loan		**.837**	
I procure some short-term assets needed by using the formal credits		**.719**	
I procure some medium-term or long-term assets through the loan amount		**.598**	
Bank loan is helpful for me to increasing my livelihood		**.654**	
Bank loan is helpful to fulfil my practical needs	**.815**		
Bank loan is helpful to fulfil my long-term needs	**.841**		
My financial need was positively affected by the services of banks	**.823**		

I got encouragements for my future needs also from the bank loan	**.850**		
I finance other expenses incurred of my products/services from a microfinance bank loan	**.822**		
My personal asset position was positively affected by the services of banks	**.829**		
The loan amount is helps to generate employment opportunity	**.811**		
Loan amount was useful for providing additional days of self-employment		**.761**	
It was helpful to generate employment for others with my loan amount		**.791**	
I think the employment opportunity leads more people come to use the formal credits that I can pay the wages and salaries of workers from the bank loan		**.854**	
			.800

Source: Primary Data

IV. 6. 3. Interpretation of Factors Extracted

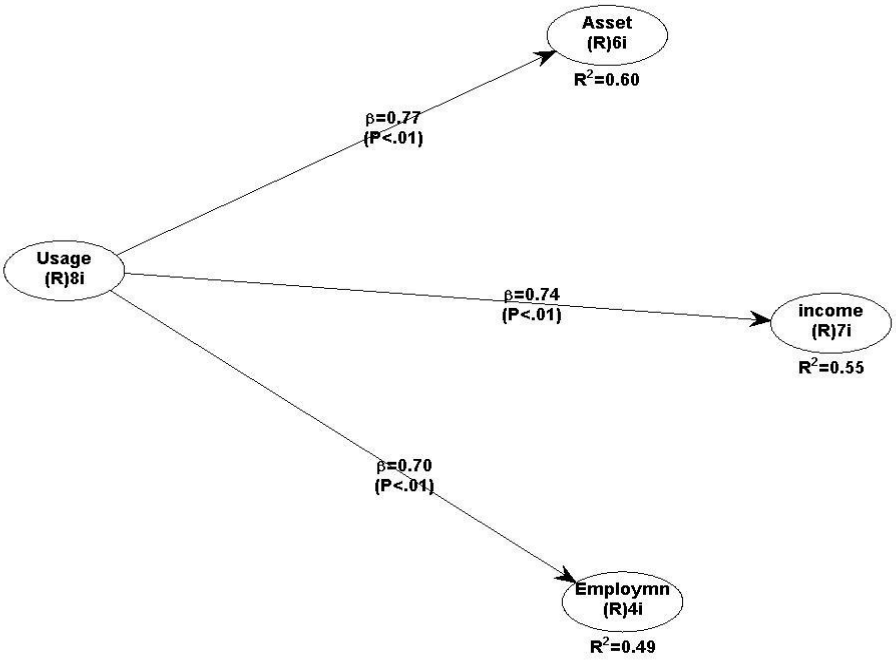
As it was evident from Table IV.6, three principal factor dimensions were extracted. It is very clear from the factor loadings that (Table IV.6) beneficiaries have made clear demarcation on attribute items and factor I can be logically interpreted as those underlying attributes which explain the dimension that was closely related to income generation aspects during the course of FIP. Whereas, factor II represents those attributes which influence beneficiaries specifically by the Asset creation feature related

aspects. Moreover the factor III attributes are directly linked with the additional employment generation aspects of beneficiaries.

IV.7 Confirmatory Factor Analysis for Validation of the Dependent Variable- of Effectiveness of FIP-Measurement Model

Confirmatory Factor Analysis (CFA) provides enhanced control for assessing the overall process of construct validation. The measurement model was validated by CFA method using the same sample data used for EFA. This analysis provided clarity on indicator items which are reflected in a given set of factor dimensions and its interrelationships are assessed with the goodness of fit indices. Figure IV.2 explains the hypothesized model followed by summary of model fit indices. It was found that the three explored underlying dimensions namely asset creation, income generation and employment opportunity attributes were statistically valid, and further there were no statistical evidences to reject the model.

Figure IV.2 Dependent Variable Dimensions - Measurement Model



Source: Primary Data

Table IV. 7 Model Fit Summary of Various Dimensions of Dependent Variable

Particulars	**Values**	**Range**
Average path coefficient (APC)	0.739	P<0.001
Average R-squared (ARS)	0. 547	P<0.001
Average adjusted R-squared (AARS)	0.545	P<0.001
Q squared co-efficients – Asset creation	0.593	
Income generation	0.554	
Additional Employment	0.492	
Average full collinearity VIF (AFVIF)	2.646	acceptable if <= 5, ideally <= 3.3
Tenenhaus GoF (GoF)	0.688	small >= 0.1, medium >= 0.25, large >= 0.36
Sympson's paradox ratio (SPR)	1.000	acceptable if >= 0.7, ideally = 1

Source: Primary Data

The above fit indices show indicators best fit the model confirming the various dimensions of dependent variable used in the model. P value is significant and all other indices confirm the model fitness. The R squared coefficient reflects the percentage of explained variance associated with the latent variable. The R squared coefficient for the dependent variable is 0.547 meaning 55 percentage of the variance in dependent variable is explained by the dimensions in the study. The Q squared coefficient, which is also known as Stone-Geisser Q squared coefficient, reflects the predictive validity associated with the latent variable. It is recommended that accepted predictive validity in connection with an endogenous variable is suggested by a Q squared coefficient greater

than zero (Kock, 2012). The Q squared coefficient as seen in table IV.7 is 0.593 for asset creation aspect, 0.554 for additional income generation aspects and 0.492 for the additional employment opportunity aspect and hence predictive validity of the model was also established.

IV.7. 1 Test of Multi- Colinearity of Factor Dimensions

Recommend that the variance inflation factors (VIFs) of all latent variables in the model were below the threshold 3.3 in the context of PLS-based SEM in discussions of latent variable measurement (as cited in Kock, 2012). Therefore it is clear that the model is free from multi- colinearity.

IV.7.2 Internal Consistency of the Items Extracted

Internal consistency of each factor item was checked using SPSS - reliability analysis scale items. Cronbach alpha values obtained for Factor I, factor II and factor III were above the threshold limit. As both the values are above the acceptable threshold value of 0.7 (Nunnally, 1978), internal consistency (reliability) of scale items are valid. Moreover, the squared correlation values are also shown significant in the SEM model which indicates scale item consistency

Table IV.8 Reliability Analysis

Cronbach's alpha coefficients			
Asset	Usage	Income	Employment
0.972	**0.972**	**0.974**	**0.958**

Source: Primary Data

IV. 8 Exploratory Factor Analysis: Development of moderating variable- Financial Literacy

In spite of variety of versions and perspectives of financial literacy in the literature, little is known about the influences beneficiaries' perceptions and responses with respect to its attribute level performance. So an Exploratory Factor Analysis (EFA) was conducted using data from 140 respondents. Statistical Package for Social Science (SPSS) was used to conduct factor analysis. As done in the previous measurement model, Principal

Axis Factoring (PAF) method with oblique rotation technique vide direct-oblique rotation was used for exploring factor components since correlations among the items were presumed in the study. To arrive at a range of degree of financial literacy performance indicators through literature review eleven items were concurrently identified (Rao *et.al., 2010)* (Detailed explanation can see in chapter II) based on the various attributes acknowledged.

The respondent had to indicate the attribute-degree of financial literacy of each item on a five point Likert scale (1 – strongly disagree; 2 - disagree; 3 - neither agree nor disagree; 4 - agree and 5 – strongly agree). The attribute items which were rated by the respondents in 5 point Likert scale are given below.

Degree of Awareness on Filling up of application
Degree of Awareness on Long-term benefits of savings
Degree of Awareness on Consequences of default
Degree of Awareness on Rate of interest on various deposits and loans
Degree of Awareness on Security required for loan required
Degree of Awareness on Repayment of loans
Degree of Awareness on Availability of market
Degree of Awareness on Online Banking
Degree of Awareness on Mobile banking
Degree of Awareness on Debit Card/Credit card
Degree of Awareness on Internet Banking

IV. 8.1 Test of sampling adequacy

To check the adequacy of the sample used for factor analysis, Kaiser- Meyer- Oklin (KMO) and Bartlett's Test is used, results of which indicate significant values. KMO value 0.956 (see Table IV.9) - higher than the threshold.

Table IV.9 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.956
Bartlett's Test of Sphericity	Approx. Chi-Square	1082.87
	Degree of freedom	28
	Significance.	.000

Source: Primary Data

Items under Financial literacy came under one variable itself. So there is no need of table (rotated component matrix) showed as only one component was extracted.

IV.8.2 Total Variance Explained and Number of Factors Extracted

Only one factor was extracted which explained about 77 per cent of the variation after extraction sums of squared loadings based on Eigen values above one. Since the method used for the analysis was principal axis factoring, Pattern matrix values were taken for rotated component selection.

Iv. 8.3 Interpretation of Factors Extracted

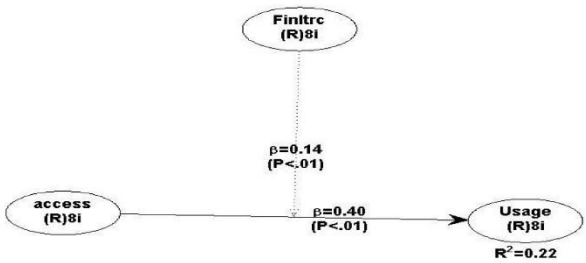
Only one factor was extracted. It is very clear from the factor loadings that beneficiaries have made clear demarcation on attribute items and factor can be logically interpreted as those underlying attributes which explain the dimension that was closely related to degree of financial literacy aspect in the course of FIP. The output has been reported after the items having factor loading less than 0.50 shall be eliminated (Hair et al, 1996). The factor loadings of items like "*Degree of Awareness on Online Banking, degree of Awareness on Internet Banking and Degree of Awareness on Rate of interest on various deposits and loans"* has got low loading (less than 0.5). Therefore those three items were eliminated in the final schedule. And the remaining eight items were finalised for the refined interview schedule.

IV.9 Confirmatory Factor Analysis for validation of the Moderating variable-Measurement model

As it is a moderating variable, we can confirm the fit indices by using a moderating link. According to Ahire, Golhar and Waller (1996) Confirmatory Factor Analysis (CFA) provides enhanced control for assessing uni-dimensionality than Exploratory Factor

Analysis and is more in line with the overall process of construct validation. Uni-dimensionality measures the extent to which all the items in a scale measure the same construct (Venkatraman, 1989). The measurement model was validated by CFA method using the same sample data used for EFA. This analysis provided clarity on indicator items which are reflected in a given set of factor dimensions and its interrelationships are assessed with the goodness of fit indices. Figure IV.3 explains the hypothesized model followed by summary of model fit indices. It was found that only one item was explored underlying dimension namely financial literacy attributes were statistically valid, and further there were no statistical evidences to reject the model.

Figure IV. 3. Moderating Variable - Measurement Model



Source: Primary Data

IV.9.1 Statistical Inferences – Measurement Model

Here the fit indices of the SEM model validates the factor explored previously from sample beneficiaries as shown in table IV.3, there was no statistical evidences to reject the model as per the accepted levels of model fit results (Kazi, 2011). To assess the model fit with the data, it is recommended that the p-values for both the average path coefficient (APC) and the average R-squared (ARS) be both lower than 0.05. It is also recommended that the average variance inflation factor (AVIF) be lower than 5 (Kock, 2012). Below described figures (Table IV.3) provides the model fit indices with p values of the estimated model. It was found that, all the three fit criteria were met and hence it was assumed that the model had acceptable predictive and explanatory quality as the data is well represented by the model.

Table IV.10. Model Fit Summary of Moderating Variable

Particulars	**Values**	**Range**
Average path coefficient (APC)	0.264	P<0.001
Average R-squared (ARS)	0.244	P<0.001
Average adjusted R-squared (AARS)	0.218	P<0.001
Q squared co-efficients	0.220	
Average block VIF (AVIF)	1.224	acceptable if <= 5, ideally <= 3.3
Average full collinearity VIF (AFVIF)	1.132	acceptable if <= 5, ideally <= 3.3
Tenenhaus GoF (GoF)	0.421	small >= 0.1, medium >= 0.25, large >= 0.36
Sympson's paradox ratio (SPR)	1.000	acceptable if >= 0.7, ideally = 1

Source: Primary Data

The above fit indices show indicators best fit the model confirming the moderating variable interacting between Accessibility perception and usage perception of financial inclusion programme. P value (P<0.001) is significant and all other indices confirm the model fitness. The R squared coefficient reflects the percentage of explained variance associated with the latent variable. Even though there is little change in the R squared value, the moderating path showed positively significant. The R squared coefficient for usage is 0.244 in the presence of moderating variable and it was 0.20 in the absence of moderating variable. It means that R square value increased because of the influence of moderating variable. The Q squared coefficient, which is also known as Stone-Geisser Q squared coefficient, reflects the predictive validity associated with the latent variable. It is recommended that accepted predictive validity in connection with an endogenous

variable is suggested by a Q squared coefficient greater than zero (Kock, 2012). The Q squared coefficient as seen in Figure IV.7 is 0.220 and hence predictive validity of the model was also established.

IV.9.2 Test of Multi Co-linearity of Factor Dimensions:

Cenfetelli and Bassellier (2009) and Petter, Straub and Rai (2007) recommend that the variance inflation factors (VIFs) of all latent variables be below the threshold 3.3 in the context of PLS-based SEM in discussions of latent variable measurement (as cited in Kock, 2012). VIF is a measure of the degree of vertical collinearity or redundancy among the latent variables that are hypothesized to affect another latent variable. In reflective latent variables indicators are expected to be redundant. Here the AVIF is 1.132 (table No. IV. 10) means there is no issue of multi- colinearity in the model.

IV.9.3 Internal Consistency of the Items Extracted

Internal consistency of each factor item was checked using SPSS - reliability analysis scale items. Cronbach alpha values obtained for was above the threshold limit. As both the values are above the acceptable threshold value of 0.7 (Nunnally, 1978), internal consistency (reliability) of scale items are valid. Moreover, the squared correlation values are also shown significant in the SEM model which indicates scale item consistency.

Table IV.11 Reliability Analysis

Cronbach's alpha coefficients		
Financial literacy	Access	Usage
0.965	0.973	0.972

Source: Primary Data

IV.10 Chapter Summary

In this chapter the scales were validated by satisfying the reliability and validity criteria. The check for multicollinearity among variables was done by Warp PLS 5.0 software. No multicollinearity was found to exist. The path coefficients and p values of relationships among variables were obtained. The independent variable dimensions of financial inclusion programme, moderating variable and dependent variable dimensions

were explored through factor analysis which were then confirmed and validated by confirmatory factor analysis using structural equation modeling.

As found in the results of factor analysis, measurement items of two constructs are showing acceptable level of factor loadings and communalities. Correlations between items observed are also found within the acceptable limits. This shows the independency of the items used in the scale, while maintaining its construct and convergent validity. The sub dimensions extracted in the measurement models of each constructs were validated and these respective scale items were used for further analysis described in the next chapter.

Chapter V
Supply Side Analysis of Data

This chapter explains the supply side analysis of effectiveness of FIP in Kerala by using Financial Inclusion Index. The Interpretations are discussed in terms of the relationship with research objectives. The independent variables of financial inclusion programme were used as the different dimensions of FII.

V.1 Banks and FIPs in India

Banks in India stands a unique role in the development and control of fiscal sector in India. They are the corner stone of growth. Banks are now concentrating poor and weaker sections of the society as part of FIP. Banking to the poor is not poor banking. It is considered as the duty of Banker to participate bottom line people also for the continuous growth of nations especially in a developing country like India. Therefore, Banks are ready to follow the policies and programmes come under FIP. Following are the important activities that should be carried out by commercial Banks in India as part of FIP.

V.1.1 Banking Policies and Practices in Relation with Financial Inclusion Programme

As described in chapter one, the institutional structure follows for implementing financial inclusion programme: instructions come from RBI to SLBC, SLBC to Lead Banks and from lead banks to concerned Banks to the door step of the customers.

V.1. 2 Banks and FIPs in Kerala

Following are the comprehensive description of banking policies for the implementation of financial inclusion policies and practices:

V.1.2.1. Providing Financial Literacy

Providing financial literacy is the core function of financial inclusion, as the main reason for exclusion is the lack knowledge about formal financial system. Concerned

authorities (Lead Banks) allows duty for doing financial literacy and credit counselling and responsible Banks are working for the purpose of providing credit counselling and personal finance dealing techniques and leading the people to open a formal bank account. There are hundred and fifty five Financial Literacy and Credit Counselling centres (FLCC) all over Kerala (SLBC, Kerala, 2017).

The main functions to be performed by commercial banks in relation with financial literacy are:

1. Disseminating information regarding financial services and general banking concepts to various target groups, including school and college going children, women in rural places and urban poor, senior citizens, etc.
2. Extending financial education which will include:
    a) Need for savings,
    b) Advantages of banking with formal financial institutions, various financial products offered by banks relating to deposits, advances.
    c) Other financial services through electronic mode such as ATMs, Smart Cards, mobile banking etc.
    d) Method of calculation of interest on savings bank accounts, Fixed Deposits.
    e) Benefits of nomination facilities of accounts.
3. Bringing awareness of customer rights under fair practice code.
4. Organizing public awareness campaigns, seminars, press conferences etc.

V.1.2.2. Credit Counselling

There are two types of credit counselling, one is preventive counselling and the other is curative credit counselling.

Preventive counselling will include bringing awareness regarding cost of credit, availability of backward and forward linkages, etc., need to avail of credit on the basis of customer's repaying capacity. In case of curative counselling the credit counselling centre will work out individual debt management plans for resolving the unmanageable debt portfolio of the clients by working out effective debt restructuring plan in consultation with branch of the bank, taking into account income level and size of the loans.

Detailed list of FLCs is shown in Appendix-III

V.1.2.3. Simplifying of KYC (Know Your Customer) Norms

KYC stands for Know Your Customer. Simplifying KYC norms as part of FIP means the beneficiaries have to provide only the passport size photograph and self-attested address proof for opening up of BSBDAs.

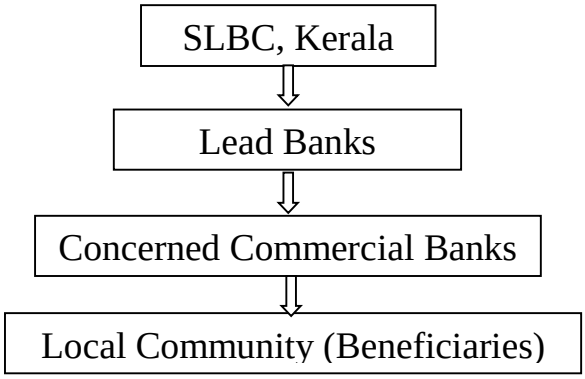
V.1.2.4. Introduced BC (Business Correspondent)/ BF (Business Facilitator) model:

With an effort to focus commercial banks, to reach rural household and farm household, banks were permitted to use infrastructure of civil society organizations, rural kiosks, and adopt Business Facilitator (BF) and Business Correspondent (BC) models for providing financial services. RBI has operators and agents of small saving schemes of government of India or Insurance companies, retired and authorized functionaries of well-run SHGs linked to banks as BCs. In January 2006 RBI permitted to utilize the services of NGOs, SHGs, MFIs and other civil society organizations as intermediaries in providing finance and banking services through BF and BC which is known as "Agency model". (This allows banks to do 'cash in cash out' transactions at a location closer to rural population and facilitate greater financial inclusion and income)

As far as Kerala is concerned BC or BF was not possible in all allocated centres. Only one or two BC was working. Therefore, SLBC went for **Branch Expansion** instead of BCs/BFs. Satellite branches were also used instead of brick and mortar branches for performing financial inclusion services. Mobile vans were used by KGB in north Kerala especially in Wayanad.

In Kerala, FIP is led by SLBC Kerala and it delivers duty of FIPs to the Lead Banks and this lead Bank delivers duty of FIPs to the concerned commercial Banks in each District then ultimately it reaches to the beneficiaries through the concerned commercial banks. It can be understood at a glance with the following figure

Figure: V.1 Channels of implementing FIP in Kerala



Source: SLBC Kerala

V.2. Bank Branches in Kerala

Following table (Table No: V.1) explains the details regarding the number of Bank Branches in Kerala in total at the latest. Numbers of Banks are classified on the basis of its location like Rural, Semi-Urban and Urban.

Table V.1 BANKING STATISTICS - NUMBER OF BANK BRANCHES AS AT SEPTEMBER 2017

Sl No.	BANK	No. of Branches			
		Rural	Sub Urban	Urban	Total
A	**Public Sector Commercial Banks**				
1	Allahabad Bank	0	11	10	**21**
2	Andhra Bank	0	19	20	**39**
3	Bank of Baroda	3	77	30	**110**
4	Bank of India	7	70	28	**105**
5	Bank of Maharashtra	0	3	7	**10**
6	Canara Bank	23	338	96	**457**
7	Central Bank of India	5	88	30	**123**
8	Corporation Bank	5	82	27	**114**

9	Dena Bank	0	8	8	**16**
10	IDBI Bank	0	33	19	**52**
11	Indian Bank	2	96	44	**142**
12	Indian Overseas Bank	6	135	45	**186**
13	Oriental Bank of Commerce	0	8	12	**20**
14	Punjab & Sind Bank	0	0	4	**4**
15	Punjab National Bank	8	112	47	**167**
16	State Bank Of India	60	998	292	**1350**
17	Syndicate Bank	9	173	50	**232**
18	UCO Bank	2	32	14	**48**
19	Union Bank Of India	12	182	65	**259**
20	United Bank Of India	0	5	11	**16**
21	Vijaya Bank	10	89	32	**131**
	Total- Public Sector Commercial Banks	**152**	**2559**	**891**	**3602**
B	**R R B** - Kerala Gramin Bank	51	526	39	616
	Total- Public Sector Banks Including RRB	**203**	**3085**	**930**	**4218**
C	**Private Sector Commercial Banks**				
1	Axis Bank	1	57	40	**98**
2	Catholic Syrian Bank	44	187	45	**276**
3	City Union Bank	0	8	8	**16**
4	Dhanlaxmi Bank	18	92	41	**151**
5	Federal Bank	29	493	76	**598**
6	HDFC Bank	7	106	57	**170**
7	ICICI Bank	6	104	61	**171**

8	Indus Ind Bank	0	20	17	**37**
9	Jammu & Kashmir Bank	0	0	2	**2**
10	Karnataka Bank	1	10	9	**20**
11	Karur Vysya Bank	0	10	9	**19**
12	Kotak Mahindra Bank	0	18	14	**32**
13	Lakshmi Vilas Bank	0	6	7	**13**
14	South Indian Bank	42	345	76	**463**
15	T.N. Mercantile Bank	0	12	9	**21**
16	Yes Bank	0	4	11	**15**
	Total- Pvt Sector Commercial Banks	**148**	**1472**	**482**	**2102**
Total - Commercial Banks + RRB		**351**	**4557**	**1412**	**6320**
D	**Co-Operative Banks**				
1	Dist Co-Operative Banks	0	0	806	**806**
2	KSCARDB (Incl. PCARDBS)	117	28	14	**159**
3	KSCB	0	0	20	**20**
	Total Co-Operative Banks	**117**	**28**	**840**	**985**
Total - Banking Sector		**468**	**4585**	**2252**	**7305**

Source: RBI website

From the above table (Table No: V.1) it is very clear that, there are 7305 bank branches in Kerala and it consist of 3602 Public Sector Bank Branches [includes the branches of Allahabad Bank, Andhra Bank , Bank of Baroda , Bank of India , Bank of Maharashtra, Canara Bank , Central Bank of India ,Corporation Bank ,Dena Bank , IDBI Bank, Indian Bank, Indian Overseas Bank, Oriental Bank of Commerce, Punjab & Sind Bank , Punjab National Bank, State Bank Of India, Syndicate Bank, UCO Bank , Union Bank Of India, United Bank Of India and Vijaya Bank], 2102 private sector bank branches [includes the branches of Axis Bank, Catholic Syrian Bank, City Union Bank, Dhanlaxmi Bank,

Federal Bank, HDFC Bank , ICICI Bank, Indus Ind Bank, Jammu & Kashmir Bank, Karnataka Bank, Karur Vysya Bank, Kotak Mahindra, Bank, Lakshmi Vilas Bank, South Indian Bank, T.N. Mercantile Bank, and Yes Bank] and 616 RRB Branches and 985 Co-operative Bank branches.

V.3. Access to Credit

1. Introduced KCC(Kisan Credit Cards), GCC(General Credit Cards) and other micro credits
2. Mobile banking, micro insurance, and Islamic banking practices.

District wise classification of last two years data on credit accessed by different categories of minorities is shown in the following table.

Table No: V.2 District-Wise Data on Flow of Bank Credit to Minorities as on 30th September 2017

	Outstanding (Rupees in Crores)			
	as on 30.09.2016		as on 30.09.2017	
	No.	Amount	No.	Amount
TRIVANDRUM	476648	6951.47	570022	7742.09
KOLLAM	49550	5325.30	93481	4390.91
PATHANAMTHITTA	194826	7771.00	335121	2918.00
ALAPPUZHA	113965	2750.79	123218	3882.00
KOTTAYAM	267484	5882.03	263708	5913.32
IDUKKI	262195	6693.35	170259	4034.41
ERANAKULAM	408549	19745.04	412528	15034.89
THRISSUR	255083	8722.35	238694	9380.36
PALAKKAD	369685	7657.77	349024	8343.85
MALAPPURAM	678226	9050.65	548635	10340.61

KOZHIKODE	239738	5422.64	231304	6985.54
WAYANAD	260080	2396.38	361239	5459.44
KANNUR	310930	6669.91	242983	6030.93
KASARAGODE	341351	3772.40	353696	4485.00
KERALA (total)	4228310	98811.08	4293912	94941.34

Source: SLBC, KERALA

A detailed table is given in appendix IV.

Table shows detailed description of district wise classification of last two years data on credit accessed by different categories of minorities (Christians, Muslims, Sikhs, Jains, Neo Budhists, Zorashtrians) in Kerala. Every fourteen district shows an increasing trend in the aspects of accessibility of credit.

V.4 Extent of Accessibility, Availability and Usage (Effectiveness of FIP using FII):

Following are the three dimensions used for measuring the effectiveness of FIP from the supply side.

Accessibility means penetration of banking system given by the number of bank accounts per 1000 population

Availability has been measured by the number of bank branches and ATMs per 1, 00,000 people.

Usage denotes by the volume of credits plus deposits.

Formula used for measuring FII is as follows:

$$FII = 1/n \sum_{i=1}^{n} zi$$

Here, n=3

Zi means dimension index

Here dimensions are: D1, D2 and D3

Dimension can be calculated by using the following formula

Zi= (Ai-mi) / (Mi-mi)

Ai= actual value of i^{th} dimension

Mi= Maximum value of i^{th} dimension

mi= Minimum value of i^{th} dimension

D1- Accessibility = **(A1-m1) / (M1-m1)**

D2- Availability and = **(A2-m2) / (M2-m2)**

D3- Usage = **(A3-m3) / (M3-m3)**

Table V.3. Dimensions of FII (Ai-mi/Mi-mi)

Sl. No	Name of Districts	D1 Accessibility	D2 Availability	D3 Usage
1	Trivandrum	476541	2976.85	934017
2	Kollam	-0.16	827.85	374957
3	Pathanamthitta	241640	938.85	375391
4	Aleppy	29736.8	701.85	321294
5	Kottayam	170227	1252.85	431115
6	Ernakulam	76777.8	218.85	40925
7	Idukki	319047	2483.85	1538492
8	Trichur	145213	1479.85	685810
9	Palakkad	255543	1116.85	58991
10	Malappuram	455154	1301.85	261982
11	Kozhikode	137823	1207.85	352736
12	Wayanad	267758	-0.15	-0.04
13	Kannur	149502	740.85	295608
14	Kasaragod	260215	124.85	66704
15	Kerala	2985176	15372.9	5738021

Source: State Level Bankers Committee, Kerala.

The above table (Table No: V.3) describes the figures representing three dimensions of financial inclusion index namely Accessibility, Availability and Usage (these dimensions were represented by D1, D2 and D3). Third column represents Accessibility dimension in the fourteen districts of Kerala. The column shown the result of the total penetration of banking system given by the number of bank accounts per 1000 population at every district of Kerala.

Calculated dimensions using the equation, actual value minus minimum value divided by maximum value minus minimum value [D1= (A1-m1) / (M1-m1)].

The fourth column represents Availability dimension and it explains the total number of bank branches and ATMs in every district of Kerala and the last column denotes by Usage dimension. This contains the volume of credits plus deposits in every districts of Kerala.

Dimension details is shown as appendix V.

The last row represents the values of dimensions of Kerala State. Figures are taken from the websites of RBI and SLBC Kerala.

The detailed table of calculations of FII is described below.

Table: V.4 Calculation of Financial Inclusion Index

Name of Districts	∑Zi = D1+D2+D3	1/3 ∑Z3	FII		Position
Trivandrum	1413534.64	471178.21	0.47	**0.16**	II
Kollam	375784.64	125261.55	0.12	**0.04**	IX
Pathanamthitta	617969.64	205989.88	0.21	**0.07**	V
Aleppy	351732.64	117244.21	0.12	**0.04**	X
Kottayam	602594.64	200864.88	0.20	**0.07**	VI
Idukki	117921.64	39307.21	0.04	**0.01**	XIV
Ernakulam	1860022.64	620007.55	0.62	**0.21**	I
Trichur	832502.64	277500.88	0.28	**0.10**	III
Palakkad	315650.64	105216.88	0.11	**0.04**	XII
Malappuram	718437.64	239479.21	0.24	**0.08**	IV
Kozhikode	491766.64	163922.21	0.16	**0.06**	VII
Wayanad	267757.64	89252.55	0.09	**0.03**	XIII
Kannur	445850.64	148616.88	0.15	**0.05**	VIII
Kasargod	327043.64	109014.55	0.11	**0.04**	XI
Kerala	8738569.97	2912856.66	2.9	**1.00**	

Source: SLBC. Kerala

The D1, D2 and D3 columns represent the three dimensions of FII. Here the First column represents the name of fourteen districts in Kerala. Second column shows the summated figures of the three dimensions of FII, and the third column shows one divided by the number of dimensions i.e., three. Fourth column shows the FII acquired by every district in Kerala and the last column describes the position of districts in their performance of supply side financial inclusion in the state of Kerala. Table clearly exhibits the position of each district in the performance of FIP. Ernakulam district stands in first position followed by Trivandrum district, Trichur district, and Malappuram district respectively in the second, third and fourth position. Pathanamthitta district, Kottayam district, Calicut district and Kannur district shows medium performance and they place fifth, sixth, seventh and eight positions in the performance of FIP. Kollam district, Kasargod district, Aleppy district, Palkkad district, Wayanad district and Idukki district showed ninth, tenth, eleventh, twelfth, thirteenth and fourteenth position respectively. Idukki district showed last position in the performance of FIP in the State of Kerala.

V.5 Chapter Summary

The chapter gives the analysis of financial inclusion programme from the supply side results of tests using FII carried out to examine the effectiveness financial inclusion programme in Kerala. Performance of fourteen districts was measured using FII and it was reported in this chapter in a tabular form. Roles performed by the Banks in Kerala were explained in detail in the present chapter. FIIs of fourteen districts in Kerala were described in this chapter. SLBC, Kerala is the foremost authority in the performance of FIP in Kerala.

The next chapter deals with testing of hypothesis.

Chapter VI
Test of Hypothesis and Analysis of Conceptual Model

This chapter explains the profile of the samples, descriptive statistics of the collected data and its analysis in tune with the objectives and hypotheses set for the study. Interpretations are discussed in terms of their relationship with research objectives. The model which explains the relationship between dependent, independent and moderating variables of financial inclusion programme from the perception of demand side is depicted in this chapter.

VI. 1 Data Records

People who are financially included that means to whom have a bank account in the formal financial sector and checking on the basis of usage, their accessibility towards, and the availability of financial services were only considered as respondents. After confirming the appropriateness of the respondents for the sample, three hundred filled-up interview schedules from the beneficiaries were considered for the study. The survey was carried out by direct interaction with beneficiaries of financial inclusion programme. Distributed 300 interview schedule to the selected respondents from the state of Kerala. With the wholehearted support of the respondents every three hundred interview schedules were filled and used for the analysis.

VI. 2 Profile of the Respondents

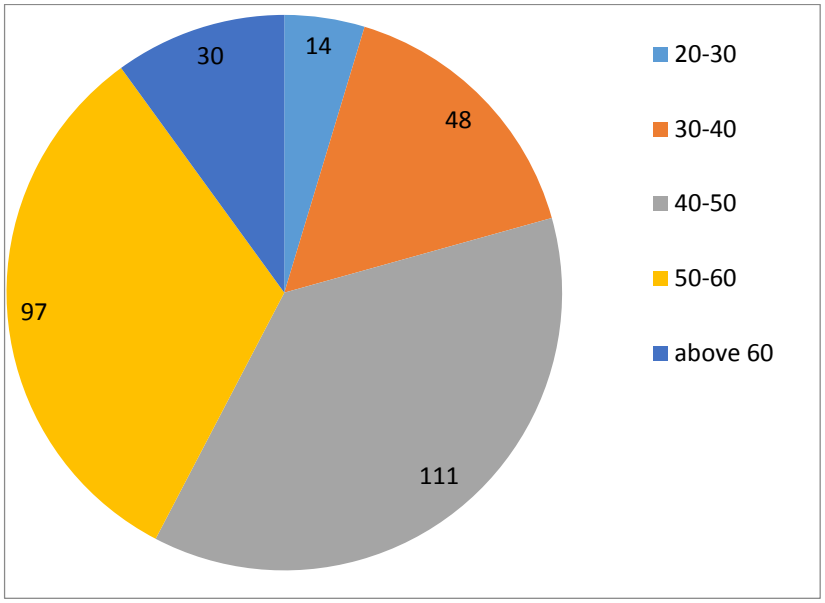
The sampling design was described in section III.14 of chapter III.

VI. 3 Classification of Respondents Based on Age

People of different age groups have different choices, credit needs, savings behaviour etc. so it is very important to analyse the respondents according to their age. The figure VI.1 shows the age wise classification of the respondents covered under the study. They are grouped under five groups namely below 30, 30-40, 40-50, 50-60 and 60& above.

Out of 300 respondents only 14 (5 Per cent) are in the age group below 30, 48(16 per cent) are in the 30-40 age group, 111(37 per cent) are in the age group of 40-50, 97(32.3 per cent) are in the age group of 50-60 and 30 (10 per cent) are in the age group of 60& above. Therefore, majority of the respondents belong to middle (40-50) age groups.

Figure VI.1: Distribution of Respondents Based on Age

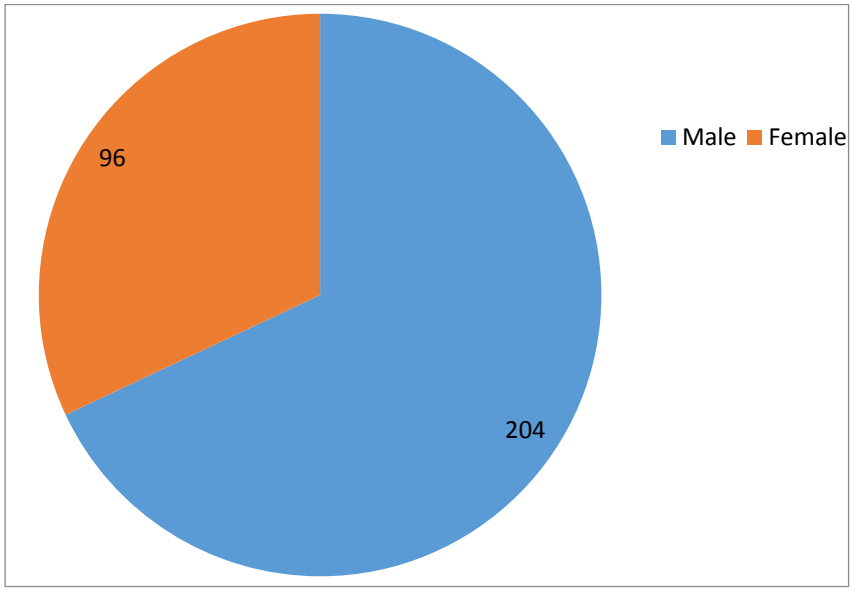


Source: Field survey

VI. 4 Classification of Respondents Based on Gender

Gender wise classification of respondents covered under the study is presented in the figure VI.2. It shows that out of 300 respondents, male respondent constitute 204 (68 per cent) and female respondents constitute only 96 (32per cent). It indicates that majority of respondents are male.

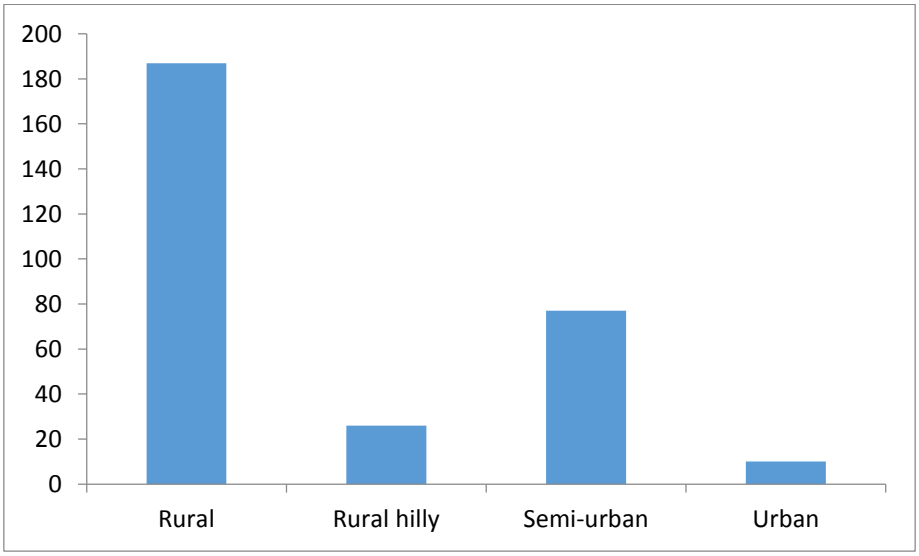
Figure VI.2: Gender Distribution



Source: Field survey

VI. 5 Classification of Respondents Based on Residential Status

Figure VI.3: Residential Status of Respondents



Source: Field survey

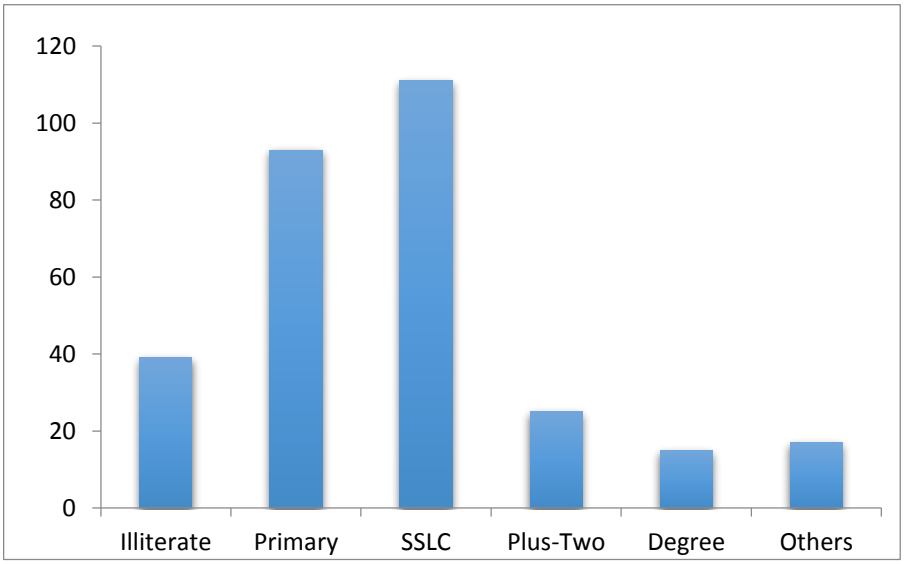
Locality is another important demographic variable that explains the behavior of respondents. Based on locality respondents are classified into three groups namely those

residing in rural, rural hilly, semi-urban and urban areas. From the figure VI.3 it can be noted that among 300 respondents, 187 (62.3 per cent) are in the rural area, 77 (25.7 per cent) in the semi- urban area and the rest 10 (3.3 per cent) are in the urban area. Thus, majority of the respondents are residing in the rural area. It is because people living in the rural area are weaker and belongs to low income group, especially small credit needs than the people in the semi- urban & urban areas.

VI. 6 Classification of Respondents Based on Education

Education that equips a person to make better choices and decisions with confidence is a very important factor to be analyzed in the savings and credit behavior. The respondents are grouped according to their educational qualifications such as illiterate, primary, SSLC, plus two/ PDC, and degree and others. From the figure VI.4, it is revealed that out of 300 respondents 39(13Percent) are illiterate, 93(31.percent) passed primary level, 111 (37 per cent) passed their high school level (SSLC), 25(8.3 per cent) passed plus two level education, 15(5per cent) passed degree education and 17(5.7 per cent) are having other qualifications. Others include two postgraduates. The table shows that majority of the respondents possess SSLC level education (38.5 percent).

Figure VI.4: Educational Status of Respondents

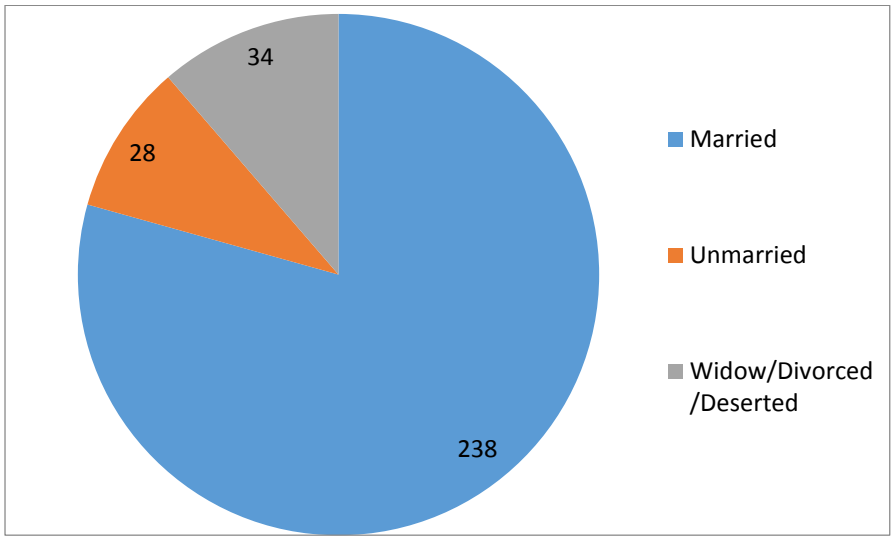


Source: Field survey

VI. 7 Classification of Respondents Based on Marital Status

Marital status is an important variable that influence the saving behavior and credit needs of the low-income group and weaker sections. The figure VI.4 shows the marital status wise classification of the respondents. From the table it is clear that out of the 300 respondents 238 (79 per cent) are married, 28(9per cent) are single, and 34(11 Percent) are widowed/divorced/deserted. It is revealed that majority of the respondents covered under the study are married people. Usually after the marriage, peoples are more conscious about their savings& credit needs.

Figure VI.5: Marital Status of Respondents



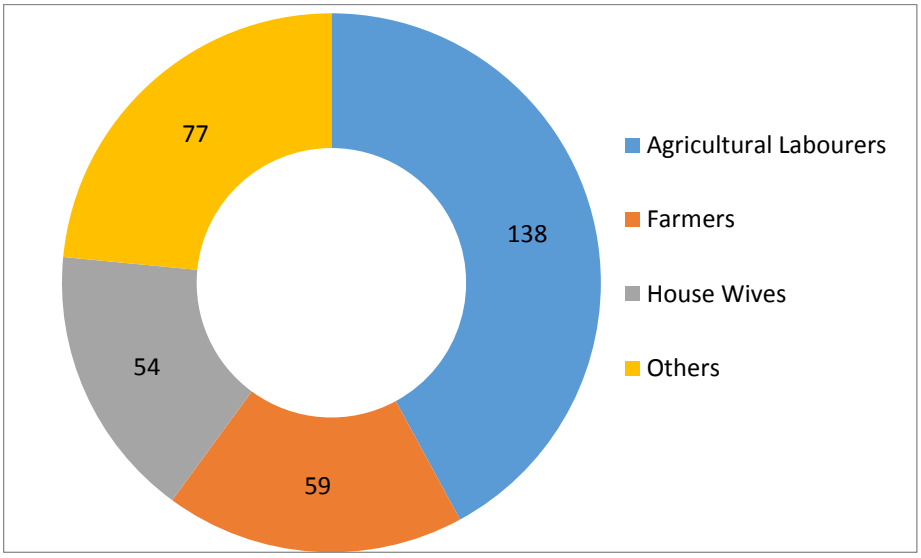
Source: Field survey

VI. 8 Classification of Respondents Based on Occupation

Occupation is another important variable, which affect the management of personal finance and credit needs of the respondents. The following figure deals with the occupation wise classification of the respondents. Based on their occupation, they are grouped into agricultural laborers, farmers, housewives, and others. Out of 300 respondents, 160 (53.3 per cent) are agricultural laborers, 39 (13 per cent) are farmers, 35 (11.7 per cent) are housewives, and 66 (22.per cent) are in the others category. Others include 3 teachers, 33 ex-military, 1 social worker, 12 business man, 3 military, and 14 beedi workers. Thus, it is revealed that majority of the respondents are agricultural

labourers. These people are more conscious about their future and they are more savers and needs credit.

Figure VI.6: Distribution of Respondents Based on their Occupation

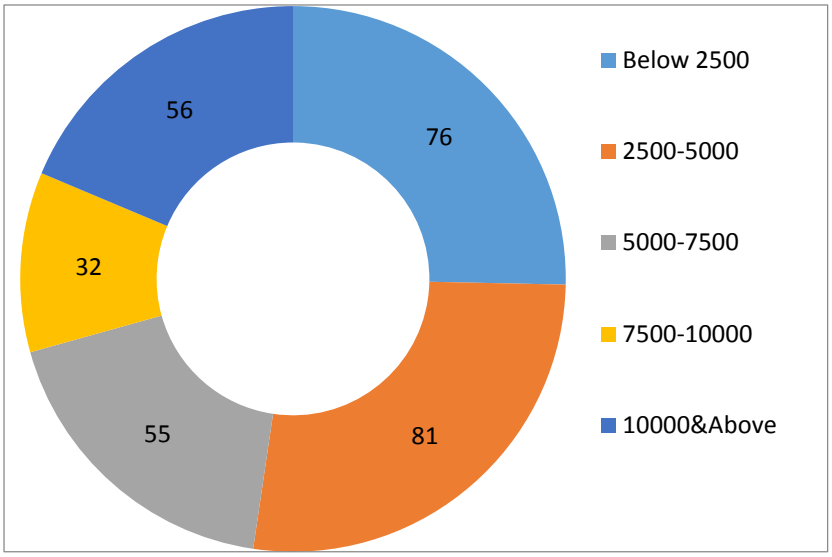


Source: Field survey

VI. 9 Classification of Respondents Based on their average Monthly Income

Saving behavior of the individuals is very much influenced by their income. The figure VI.7 Monthly income of the respondents are grouped into five categories such as below Rs.2500/-, Rs2500/--Rs.5000/-, Rs 5000/-Rs 7500/-, Rs. 7500-Rs.10,000/-, Rs.10,000/- and above. It is observed from the following figure that out of 300 respondents, 76, (25.3 per cent) are belonging to Below 2500, 81 (27.0percent) belongs to Rs. 2500/-Rs. 5000/, 55 (18.3per cent) are in the income group of Rs. 5000/-Rs. 7500/-, 32 (10.7per cent) are in the income group of Rs. 7500/-- Rs. 10000/- and 56 (18.7 per cent) are in the income group of above Rs. 10000/-. It shows that majority of the respondents income come under Rs. 2500/--Rs. 5000/-, because majority of the respondents are agricultural labourers.

Figure VI.7: Distribution of Respondents based on Monthly Income of Respondents



Source: Field survey

VI. 10 Classification of Respondents Based on the Number of Dependents

Table No: **VI.1**. Classification of respondents based on their number of dependence in the family

No. of Dependents	Frequency	Percent
2-3	222	74.0
4-5	63	21.0
6-7	15	5.0
Total	300	100.0

Source: Primary Data

Respondents based on the number of dependents (Table No: VI.1) were showed. The number of respondents listed were 2-3, 4-5, and 6-7. Majority of the respondents had two - three dependence in their family.

VI. 11 Classification of Respondents Based on Housing Condition

Table VI.2. Classification of respondents based on their housing condition

Housing condition	Frequency	Percent
Own	288	96.0
Rented	12	4.0
Total	300	100.0

Source: Primary Data

The above table (Table No: VI.2) showed Classification of respondents based on their Housing condition as they are living in Own residence or in Rented home. Majority of the respondents were residing in own house. Only four percent of beneficiaries were living in rented house.

VI. 12 Classification of Respondents Based on the Type of Bank they are Using

Table VI.3 Classification of respondents based on the type of Bank they are using

Type of Bank	Frequency	Percent
Public Sector Bank	217	72.3
Private Sector Bank	33	11.0
Gramin Bank	11	3.7
Co-Operative Bank	36	12.0
Others	3	1.0
Total	300	100.0

Source: Primary Data

Type of bank they were using for getting loans showed in the above table (Table No: VI.3). Public Sector Bank, Private Sector Bank, Gramin Bank, Co-Operative Bank, and Others were the options given. Majority of the respondents were come under public sector Banks.

VI. 13 Classification of Respondents Based on Number of Bank Accounts Using

Table VI. 4 Classification of respondents based on Number of bank accounts using

Number of bank accounts	Frequency	Percent
Only One	131	43.7
Two	135	45.0
Three	28	9.3
Four& Above	6	2.0
Total	300	100.0

Source: Primary data

The above table (Table No: VI.4) shows the number of bank accounts used by the respondents as they have Only One, Two, Three, Four& Above accounts. Majority of the respondents had two accounts. They were opened account in the co-operative Banks also. Even though RBI is not considering Co-operative banks' deposits, in rural Kerala co-operative banks play a major role in Kerala.

VI. 14 Classification of Respondents Based on Purpose of Usage

Table VI.5 Classification of respondents based on Purpose of usage

Usage	Frequency	Percent
Savings	26	8.7
Credit	300	100.
Both	26	8.7
Others	160	53.3

Source: Primary Data

From the above table, (Table No: VI.5) it was clear that respondents were classified based on their usage of bank accounts as for Savings, Credit, Both and Others. As the respondents were considered on the basis of those who were financially included, all respondents were using for credit purpose, even then twenty six respondents were using for savings purpose also. And hundred and sixty respondents were using for other purpose like receiving government benefits like gas subsidy, pension etc. also.

VI.15 Classification of Respondents Based on their Sources of Information Regarding the Banking Services:

The following table (Table No: VI.6) shows the classification of respondents based on their Sources of information regarding Banking services as from Friends and Relatives, News Paper, TV/Radio, Flex Boards, or through Internet. Majority of the respondents (64.3 percent) get information from their friends and relatives. Only few (35.7 percent) get information through other sources like TV/Radio, flex board or through Internet.

Table VI. 6 Classification of respondents based on their Sources of information regarding the Banking services

Sources of information	Frequency	Percent
Friends And Relatives	193	64.3
News Paper	64	21.3
TV/Radio	31	10.3
Flex Boards	7	2.3
Internet	5	1.7
Total	300	100.0

Source: Primary Data

Vi. 16 Classification of Respondents Based on the Schemes they are Using

Table VI.7 Classification of respondents based on the schemes they are using		
Schemes	Frequency	Percent
KCC	167	55.7
GCC	82	27.3
Other Micro Credits	51	17.0
Total	300	100.0

Source: Primary Data

Table (Table No: VI.7) reveals that, the total respondents were covered under four categories; the first category belongs to KCC holders and it covers 55.7 percent (167 respondents) of respondents, GCC holders covers 27.3 percent (82 respondents), and the remaining respondents i.e., 17 percent (51 respondents) comes under the third category of other micro credits. Other micro credits include micro credits given for starting micro units as a part of group activities (with SHG-Bank linkage), and loans given for purchasing cattle, tailoring machines (self-employment facility). Majority of the respondents (55.7 percent) falls under KCC Scheme.

VI.17 Descriptive Statistics of Variables Used in the Study:

Table: V1. 8. Descriptive statistics of Variables used

Constructs	N	Minimum	Maximum	Mean	Std. deviation
Accessibility	300	1	5	3.1321	1.16127
Usage	300	1	5	3.560	.90302
Financial literacy	300	1	5	3.2379	1.10568
Asset creation	300	1	5	3.2592	.89115
Income generation	300	1	5	3.0489	.78731
Employment generation	300	1	5	3.3419	.80478

Source: Field survey

Above table (Table No: VI.8) shows the list of entire variables along with Descriptive statistics of the variables (mean values and standard deviation). These variables were identified and appropriate measurement scales were adapted through the review of literature.

VI.18 Reasons-Why the Respondents Use Formal Financial Services

Table: VI. 9. Formal Financial Services-Usage Reasons

S.l No	Items	Weighted Score	Rank
1	Lower interest rate	0.16	1
2	Cost Effectiveness	0.15	2
3	Problem Handling and compensation	0.14	3
4	Easy to use and convenience & Operational efficiency	0.11	4
5	Responsiveness	0.1	5
6	Proper sanctioning of loans	0.08	6
7	Better customer service & Efficiency	0.06	7
8	Speed of service	0.03	8

Source: Primary Data

It is clear from the table that based on the ranking they have given; the reason for using formal financial service is mainly because of lower interest. So it has got Rank 1. Cost effectiveness, Problem Handling and compensation, easy to use and convenience &, Operational efficiency, Speed of service, proper sanctioning of loans. Better customer service & Efficiency and Responsiveness follows subsequently while comparing with informal financial services.

VI.19 Respondent's Problems while using Formal Financial Services

Table: VI.10. Problems in using formal financial services

Sl. No	Items	Weighted score	Rank
1	Tedious and cumbersome procedures	0.216749468	1
2	Distance to be travelled	0.186515259	2
3.	Lack of banker's interest	0.176721079	3
4	Procedural delay	0.161107168	4
5	Non-business-friendly environment	0.147480483	5
6	Limited know-how of mainstream providers	0.111426544	6

Source: Primary Data

Based on the ranks given by the respondents, the problems in using formal financial service is mainly because of tedious and cumbersome procedures. So it has got Rank 1. Distance to be travelled, Lack of banker's interest, Procedural delay &, Operational efficiency, Non-business-friendly environment, & Limited know-how of mainstream providers follows subsequently while comparing with informal financial services.

VI.20 Classification of Respondents Based on their Average Income from Activity

Table: VI.11 Average income from activity

Average income from activity	Below 5% of investment	5%-10% of investment	10%-15% of investment	Above 15% of investment
Frequency	101	146	40	13

Source: Field survey

From the above table (Table VI.11), it is evident that majority of the respondents has average income from activity between five to ten per cent of their initial investment. Hundred and one respondents have below five percent average income from activity,

forty respondents have average income from activity between ten to fifteen percent and the remaining thirteen respondents have average income from activity above fifteen per cent of their investment.

VI.21 Effectiveness of the FIP at a Glance

Table VI.12 Effectiveness of the FIP at a Glance

Particulars	Before availing the loan	After availing the loan	Change (increase/decrease)	frequency
Average monthly income	Same	Same	No change	87
	-	-	Increase	201
	-	-	Decrease	12
Average days of employment	Same	Same	No change	87
	-	-	Increase	201
	-	-	Decrease	12
Asset position (personal assets)	Same	Same	No change	87
	-	-	Increase	201
	-	-	Decrease	12

Source: Primary Data

It is very clear from the above table that, respondents were not ready to disclose their income, employment and asset position. They had reported only the change before and after availing the loan like No change, increase or decrease. Majority of the respondents reported that, they had positive changes due to accessing credit in the three aspects of economic impact like their monthly income, days of employment and asset position and only twelve respondents reported they had decrease and the remaining 87 respondents reported that they have no change on the afore said three aspects due to credit access. This is the main reason for going to the development of a model based on the perception of respondents beyond mere figures. Following model will explain clearly the

perception of respondents on the above three dimensions namely asset creation, income generation and employment opportunity.

VI.22 Conceptual Model:

VI.22.1 Confirmatory Factor Analysis:

Detailed explanation regarding **EFA** and **CFA** of the present model was given in chapter III Section 9 and 10.

VI.22.2 Measurement Model:

The conceptual model consists of independent variables, moderating variable and dependent variables. Here, first explaining measurement model without moderating variable.

Following table illustrates the basic features of Warp PLS 5.0 used for doing Structural Equation Modeling.

Table VI. 13.Basic Features of Warp PLS 5.0

Missing data imputation algorithm	Arithmetic Mean Imputation
Outer model analysis algorithm	PLS Regression
Default inner model analysis algorithm	Warp3
Multiple inner model analysis algorithms used?	No
Re sampling method used in the analysis	Stable3
Number of cases (rows) in model data	300
Number of indicators used in model	48

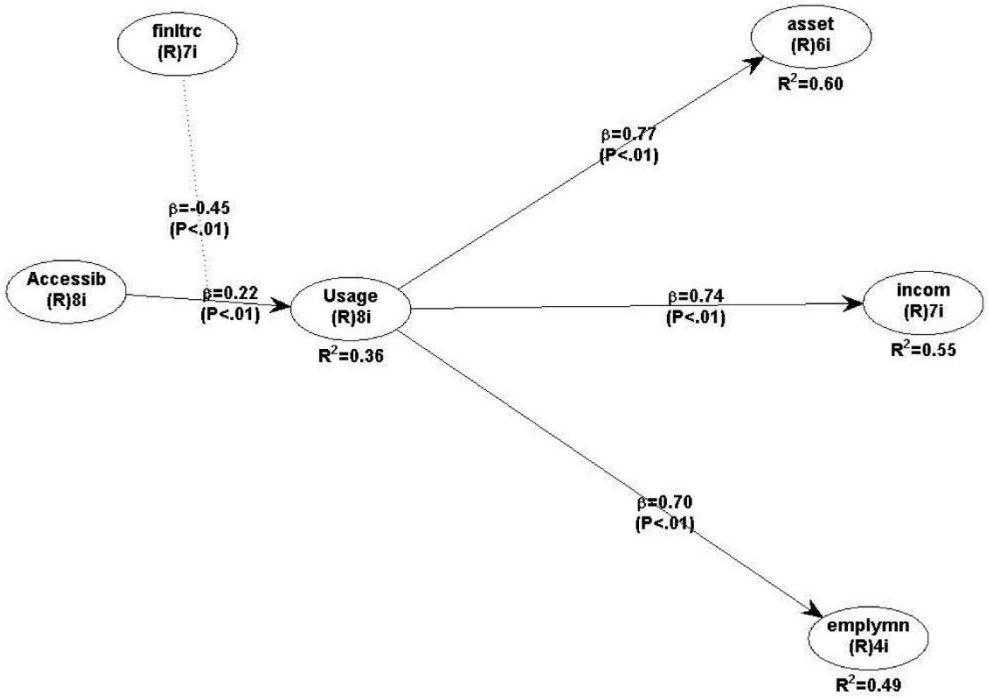
Source Primary Data

There is no need of further explanation about the basic features used for doing SEM using Warp PLS 5.0 as it is very clear from the above table. For dealing with missing data imputation algorithm used is Arithmetic mean imputation. Outer model analysis algorithm was PLS regression; default inner model algorithm was Warp3. There are no

multiple inner model analysis algorithms used; re sampling method used in the analysis was Stable3; number of cases in model data was three hundred and the number of indicators used in the model was forty eight.

Following figure is the graphical representation of measurement model used in the study without moderation.

Figure VI.8 Measurement Model without Moderation



The statistical significance of relationships among effectiveness of financial inclusion and its extracted dimensions were of interest to this study. The path coefficients (β) and p values for the relationships are as shown Figure VI.8 All paths in the model were significant ($p<0.01$) and all path coefficients (β) were also positive indicating that an increase in any of these dimensions results in an increase in perceived effectiveness of the FIP.

Table No: VI.14 Model Fit and Quality Indices

Average path coefficient (APC)	0.67	P<0.001	
Average R-squared (ARS)	0.46	P<0.001	
Average adjusted R-squared (AARS)	0.46	P<0.001	
Average block VIF (AVIF)	1.21	acceptable if <= 5 ideally <= 3.3	
Average full collinearity VIF (AFVIF)	2.39	acceptable if <= 5 ideally <= 3.3	
Tenenhaus GoF (GoF)	0.63	small >= 0.1 medium >= 0.25 large >= 0.36	
Sympson's paradox ratio (SPR)	1.000	acceptable if >= 0.7 ideally = 1	
R-squared contribution ratio (RSCR)		1.000	acceptable if >= 0.9 ideally = 1
Statistical suppression ratio (SSR)		1.000	acceptable if >= 0.7
Nonlinear bivariate causality direction ratio (NLBCDR)		1.000	acceptable if >= 0.7

Source: Primary Data

To assess the model fit with the data, it is recommended that the p-values for both the average path coefficient (APC) and the average R-squared (ARS) be both lower than 0.01. It is also recommended that the average variance inflation factor (AVIF) be lower than 5 (Kock, 2012). Table VI.14 provides the model fit indices with p values of the estimated model. It was found that, all the three fit criteria were met and hence it was assumed that the model had acceptable predictive and explanatory quality as the data is well represented by the model.

The R squared and Q squared coefficients are provided only for endogenous variables. The R squared coefficient reflects the percentage of explained variance associated with the latent variable. In other words, it refers to the percentage of explained variance of the latent variable that is due to the latent variables pointing at it. The R squared coefficient for the model is 0.46 meaning 46 percentage of the variance in dependent variable is explained by the two dimensions in the study.

Q-Squared Coefficients:	Asset	Income	Employment
	0.593	0.554	0.492

The Q squared coefficient, which is also known as Stone-Geisser Q squared coefficient, reflects the predictive validity associated with the latent variable. It is recommended that accepted predictive validity in connection with an endogenous variable is suggested by a Q squared coefficient greater than zero (Kock, 2012). The Q squared coefficient as seen in above is 0.59(Asset), 0.55(Income) and 0.49(Employment) and hence predictive validity of the model was also established.

VI.22.3 Measurement Model with Moderating Variable:

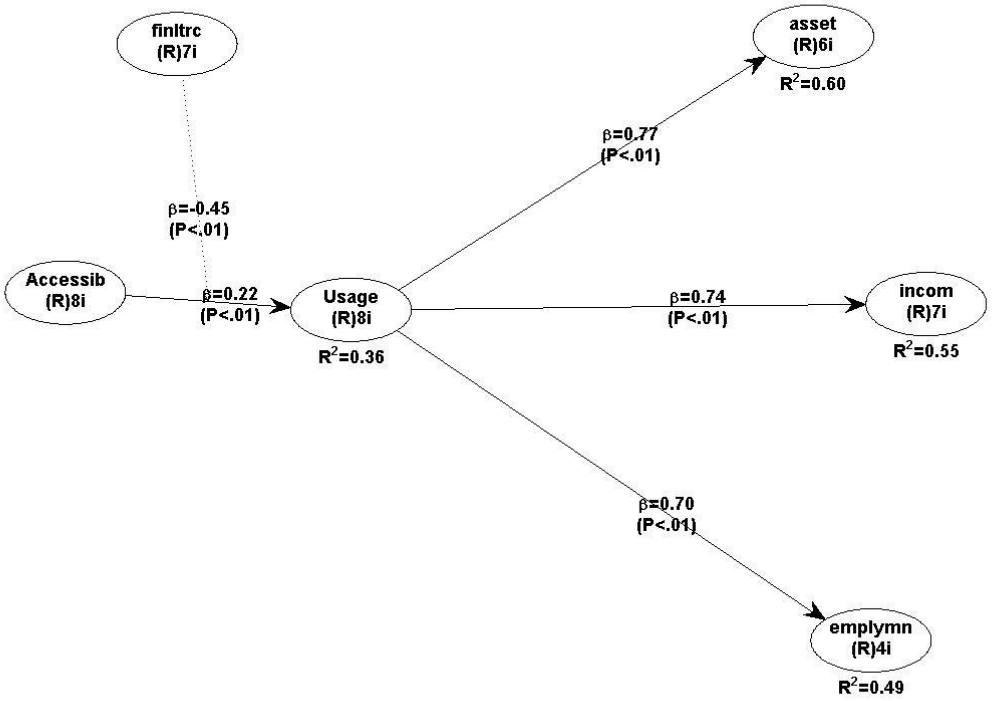
In the case of moderating variable also CFA was done in chapter III. Section 9 and 10. Therefore here going directly to the measurement model.

The conceptual model consists of independent variables, moderating variable and dependent variables. Here, first explaining measurement model with moderating variable.

The basic features of Warp PLS 5.0 used for doing Structural Equation Modeling are same as above.

Following figure is the graphical representation of measurement model used in the study with moderation;

Figure VI.9 Conceptual Model



Source: Primary Data

The path of the SEM pictured above shows statistical significance of the relationships among effectiveness of financial inclusion programme (three dimensions), its independent variable (three dimensions), and moderating variable (financial literacy). The path coefficients (β) and p values for the relationships are as shown clarifies that, all paths in the model were significant ($p<0.01$) and all path coefficients (β) were also positive indicating that an increase in any of these dimensions results in an increase in perceived effectiveness of the FIP.

VI.22.4 Model Fit and Quality Indices:

Following is the tabular form of various fit indices of the final measurement model used in the study;

Table No: VI.15 Model Fit and Quality Indices

Average path coefficient (APC)	0.58	P<0.001	
Average R-squared (ARS)	0.5	P<0.001	
Average adjusted R-squared (AARS)	0.5	P<0.001	
Average block VIF (AVIF)	1.36	acceptable if <= 5 ideally <= 3.3	
Average full collinearity VIF (AFVIF)	2.273	acceptable if <= 5 ideally <= 3.3	
Tenenhaus GoF (GoF)	0.64	small >= 0.1 medium >= 0.25 large >= 0.36	
Sympson's paradox ratio (SPR)	1.000	acceptable if >= 0.7 ideally = 1	
R-squared contribution ratio (RSCR)		1.000	acceptable if >= 0.9 ideally = 1
Statistical suppression ratio (SSR)		1.000	acceptable if >= 0.7
Nonlinear bivariate causality direction ratio (NLBCDR)		1.000	acceptable if >= 0.7

It is very clear from the above table that average path coefficient with moderation is 0.58 and it was 0.67 without moderation and ARS is 0.5 with moderation and it was 0.46 without moderation. Even though the difference in value is very small, the variation is due to the effect of moderating variable i.e., financial literacy. Also the path showed positively significant (positive beta coefficient). AVIF is 1.36, it also in the prescribed threshold limit. All other parameters like Tenenhaus GoF (GoF), Statistical suppression ratio (SSR), R-squared contribution ratio (RSCR), Sympson's paradox ratio (SPR) were same in both the models.

VI.23. Testing of Hypotheses

VI.23. (a) Hypotheses with Direct Relationship between Variables:

The direct relationship between various dimensions of dependent variable and independent variables used in the study can easily identify from the following figure. Every path showed positively significant (P<0.01 and beta values showed good indication of model fitness) and therefore the set hypothesis were not rejected.

Table VI.16 Direct relationship of variables with beta coefficients and P values

Relationship between variables(Path)	Beta Coefficients	P Value
Accessibility → Usage	0.46	<.01
Usage→ Asset creation	0.77	<.01
Usage→ Income generation	0.74	<.01
Usage→ Employment generation	0.70	<.01

Source: Primary Data

Table VI.17 provides the summary of hypotheses test results obtained at a glance for the direct relationship between variables. All the hypotheses mentioned are tested at 1% level of significance.

Table VI.17 Summary of Hypotheses Test Results: Direct Relationship between Variables		
H No.	**Statement of Hypothesis**	**Results**
H1	There is significant relationship between beneficiaries perceived Accessibility and perceived Usage	Supported
H2	There has been a significant relationship between perceived usage and perceived asset creation	Supported
H3	There has been a significant relationship between perceived usage and perceived income generation	Supported
H4	There has been a significant relationship between perceived usage and perceived employment generation	Supported

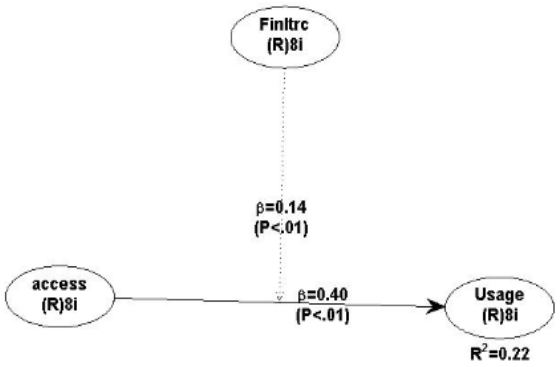
VI.23. (b) Hypotheses with Moderating Effect of Perceived Financial Literacy

This research hypothesized the role of 'financial literacy' as a moderator which enhances the effect of 'Usage with Accessibility'. The hypothesis set for the above moderation situation is provided below:

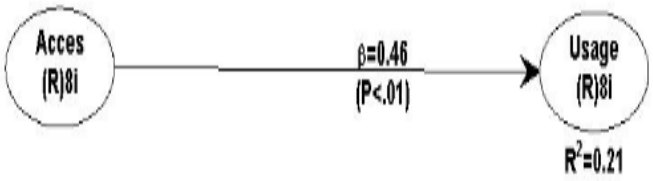
For testing the above hypothesis, researcher used structural equation modelling technique with partial least square (Warp- PLS) method. The moderating variable financial literacy was measured using a five point scale adapted from the literature. Since the data with respect to financial literacy was continuous in nature PLS (warp) was used, moreover this software facilitated direct link of moderation to the relevant paths. The relevant path diagrams representing the concerned variables are taken for the analysis. Recent studies undertaken in other sectors (Adomako, Danso, & Ofori Damoah, 2016) provide evidences that financial literacy found to be an important moderator interfering between access and growth.

Figure VI.10. Effect of Moderation-Financial Literacy-

With moderation



Without Moderation



Source: Primary Data

It was clearly evident from the above figures that with moderation, there is increase in R Squared value than without moderation. It was found that the moderation effect of financial literacy on the accessibility to usage is significant at 1% level of significance though the β value (0.14) seemed to be low; the effect of variations explained by moderation is positive and significant hence supported the hypothesis.

As referred in the review of literature, large number of studies supports the role of financial literacy in driving customer's usage levels in a financial inclusion framework. (Chen & Jin, 2017; Adomako *et.al.,* 2016; Friedline & West, 2016; Kennedy, 2013; Hillyard, 2013; OECD, 2013; N.Sreenivasan, 2012; Chandra, 2012; Cril, 2012; Falahati *et.al.,* 2012; Ministry, 2011; OECD, 2011; & Oecd, 2011; Turnham, 2010; Hung *et.al.*,

2009; Gouws & Shuttleworth, 2009; Nye *et.al.,* 2009) study found out that users perception of financial literacy interacts between perceived accessibility and perceived usage.

This research hypothesized the role of 'perceived financial literacy' as a moderator which enhances the variables 'perceived accessibility' on the relationship of perceived usage. The hypothesis set for the above moderation situation is provided below:

H5: There has been a significant interaction between perceived Accessibility and perceived usage through financial literacy perception.

Statistical Inferences:

Moderation: positively significant, P Value <0.01 *β Value= 0.14*

It was found that the moderation effect of perceived financial literacy on the Usage perception is significant at 1% level of significance though the β value (0.14) seemed to be low; the effect of variations explained by moderation is positive and significant hence accepted the hypothesis.

Model fit and quality indices from the general results obtained after conducting structural equation modeling (SEM) analysis using the method of "warped" partial least squares are given below.

Average path coefficient (APC), Average R-squared (ARS) and Average Adjusted R-squared (AARS) values were 0.267, 0.224 and 0.218 respectively. The P values obtained for the above cases were less than 0.001 which was valid. Average block VIF (AVIF)=1.224 and Average full co linearity VIF (AFVIF) = 1.132 both were acceptable since the values were less than 5. Tenenhaus GoF (GoF) obtained as 0.421, which was found suitable for large sample as the value obtained was above 0.36. Sympson's Paradox Ratio (SPR) equal to 1.000 and Statistical Suppression Ratio (SSR) found to be equal to 1.000; both the ratios were acceptable since it was greater than 0.7 and R-squared contribution ratio (RSCR) was 1.000 which was also acceptable since the value was above 0.9. Nonlinear bivariate causality direction ratio (NLBCDR) is equal to1.000, which is acceptable since the value is greater than 0.7.

VI.24 Analysis using Financial Inclusion Index (FII):

Financial inclusion index can be used for measuring the effectiveness of FIP from both demand side as well as supply side of the programme. (Kablana, and Chikkara, 2013)

Formula used for measuring FII is as follows:

$$FII = 1/n \sum_{i=1}^{n} zi$$

Where,

n= Number of dimensions

Zi (Dimension Index) = (Ai-mi) / (Mi-mi)

Ai= actual value of i^{th} dimension

Mi= Maximum value of i^{th} dimension

mi= Minimum value of i^{th} dimension

Financial inclusion index of individual respondents were given in appendix VI.

The table shows the FII of three hundred respondents individually based on their perception. First column depicts serial numbers, second column D1 (Accessibility Dimension), second column D2 (Usage Dimension) and the last column shows individual FII.

The following table shows the FII of selected Districts of Kerala. Palakkad Shows highest FII, followed by Kannur and Idukki showed the least FII.

Table VI.18 FII of Selected Districts in Kerala

Districts	FII
Palakkad	0.69
Kannur	0.57
Idukki	0.43

Source: Primary Data

Therefore, from demand side Kerala's FII is as follows

$$FII=1/2*(D1+D2)/300= \quad 161.745/300 = 0.54$$

VI.25 Chapter Summary

The chapter is dealt with the analysis of data and results of data analysis. The results of research model analysis and that of sub models are discussed in the chapter. Out of the five hypotheses formulated to examine relationships among variables in the research model, all were supported. The moderating influence of financial literacy on the link between perceived accessibility and perceived usage was also supported.

As far as beneficiaries' perceptions on Financial Inclusion Programme, demographic profiles and socio economic factors like age, gender, marital status, level of education, and income level did not explain significant variation. However differences in the coefficients were observed for different occupation level of respondents in the effectiveness of FIP.

Individual FII based on the perceptions of respondents as well as FII of Kerala and selected districts were reported in the present chapter.

The next chapter deals with a discussion on the major findings of the study and the conclusions drawn from the discussions and findings.

Chapter VII
Findings and Recommendations

This chapter provides the summary of major findings and discussion on effectiveness of financial inclusion programme as a holistic approach was considered. Effectiveness of FIP from the supply side was studied. Usage of financial inclusion products and the relationship between accessibility to usage as well as the effectiveness of financial inclusion programme (income generation, employment generation and asset creation) from demand side were also studied and the model showed positively significant. Effect of financial literacy perception were studied as a moderator and it showed that there is positive interference between accessibility and usage.

VII. 1 Summary of Findings

Studying about financial inclusion programme and to what extend it had effectiveness in the Kerala context was the main objective of the study. For making the study comprehensive, it was classified into five objectives. Answer to these objectives refined the focus of the study. Studying about a programme like financial inclusion policy will not be completed if it studies only from one angle. Therefore, it was decided to look on both sides of the programme, i.e., from supply side as well as demand side.
Following are the major findings of the study:

VII.2. The first Objective was to study the factors associated with Banking policies and implementation of Financial Inclusion Programmes: Although there have been a number of studies on FIP, much of the research has been carried out using the conventional system of looking on the inclusion-exclusion criteria and its reasons behind, what all remedies can be used etc. The practical side of FIP were studied as part of first objective of the study. Answer to the first objectives or findings were as follows:

Mainly the banks in Kerala performs the following functions as part FIP

VII.2.1. Providing financial literacy and credit counselling

VII. 2.2. Simplifying KYC norms

VII. 2.3. Introduction of branch expansion strategies

VII.2.4. Providing KCC/GCC and other Micro credits

VII.2.5. Introduced mobile banking, micro insurance and pensions

VII.2.6. There were seven thousand three hundred and five bank branches working in Kerala

VII.2.7. Access to credits were made by these branches as per the directions from SLBC, Kerala and lead Banks of the districts concerned.

VII.3. Second objective of the study was to find out the extent of accessibility, availability and usage of FIP i.e., to study to what extend the FIP is effective in Kerala using Financial Inclusion Index, and the findings were as follows:

VII.3.1. Extend of Accessibility means penetration of banking system given by the number of bank accounts per 1000 population- First dimension used for measuring effectiveness of FIP. **Extend of Availability** has been measured by the number of bank branches and ATMs per 1, 00,000 people- second dimension used for measuring the effectiveness of FIP. And the third dimension was the **Extend of Usage** which is denoted by the volume of credits plus deposits.

VII.3.2. By considering the three dimensions of **FIP,** the performance of each district were as follows:

Ernakulam district stands in first position followed by Trivandrum district, Trichur district, and Malappuram district respectively in the second, third and fourth position. Pathanamthitta district, Kottayam district, Calicut district and Kannur district shows medium performance and they place fifth, sixth, seventh and eight positions in the performance of FIP. Kollam district, Kasargod district, Aleppy district, Palkkad district, Wayanad district and Idukki district showed ninth, tenth, eleventh, twelfth, thirteenth and fourteenth position respectively. Idukki district showed last position in the performance of FIP in the State of Kerala.

VII.4. the third objective of the study was to find out the **factors associated with the beneficiaries in making use of the financial services** to meet their specific needs:

It was answered by giving choices of their prioritisation for choosing the reasons for using formal financial services and their problems in dealing with the same. Based on the ranks they have given; the reason for using formal financial service is mainly because of lower interest. So it has got rank 1. Cost effectiveness, problem handling and compensation, easy to use and convenience &, operational efficiency, speed of service, proper sanctioning of loans, better customer service & efficiency and responsiveness follows subsequently while comparing with informal financial services.

It is true that when compared with the past, bank customers today, are more knowledgeable, expect quality service and are therefore, more than willing to move from one service provider to another in search of better service or courtesy or for any other variety of reasons. Therefore, the researcher analysed whether there is any hindrances or problems in dealing with formal financial services.

Based on the ranks given by the respondents, the problems in using formal financial services was mainly because of tedious and cumbersome procedures. So it has got Rank 1. Distance to be travelled, Lack of banker's interest, Procedural delay &, Operational efficiency, Non-business-friendly environment, & Limited know-how of mainstream providers follows subsequently while comparing with informal financial services.

VII.5. Holistic approach on the FIP

The forth objective was to study with a holistic approach of FIP: studying the FIP from a broader perspective was not much an easy task and therefore, it was found necessary to develop a model based on the usage perception that is able to include customers' perceptions on the effectiveness of FIP in the contemporary banking environment. Based on the same, following were the detailed findings from the conceptual model:

VII. 5.1. Effect of Accessibility on Usage

Although there have been a number of studies on FIP, much of the research has been carried out using only the supply side data. Holistic approach can be studied only if the beneficiaries' were included. It was found necessary to develop a model that is able to

include customer perceptions of effectiveness of FIP in the contemporary banking environment. In order to identify the dimensions of FIP, those beneficiaries' of the programme consider important, the work was carried out in two stages. First, the two independent variables were identified for measuring the effectiveness of FIP. It was found that there are two independent variables namely; Accessibility, and Usage. The first stage involved preparation of a list of indicators from extensive review of literature. An item pool was identified through extensive review of literature. Accessibility perception were measured using five point likert scale. During the second stage out of the sixteen items identified from literature, eight items come under the accessibility perception, and eight items under usage perception was extracted after EFA. The scale was validated by testing the convergent and discriminant validities and the reliability which were all satisfactory. It was found that the two variables accessibility and usage does not have multi-colinearity with each other also. The validated scale was conceptualized as a first order reflective construct, and it was confirmed by doing CFA too.

The statistical significance of the relationships among independent variables of effectiveness of financial inclusion programme and its extracted dimensions were of interest to this study. The path coefficients (β) and p values for the relationships were positively significant. All paths in the model were significant ($p<0.01$) and all path coefficients (β) were also positive indicating that an increase in any of these dimensions results in an increase in perceived effectiveness of the FIP. It was found that, all the three fit criteria were met and hence it was assumed that the model had acceptable predictive and explanatory quality as the data is well represented by the model.

The R squared and Q squared coefficients are provided only for endogenous variables. The R squared coefficient reflects the percentage of explained variance associated with the latent variable.

In the first phase of Model independent variable Accessibility perception to the Usage perception had measured. All paths showed positively significant and the set hypotheses were also accepted.

VII.5.2. Moderating Effect of Financial Literacy:

In the second phase of conceptual model developed the effect of moderating variable were tested. The degree of awareness on managing personal finance was measured under the terminology of financial literacy. Perceptions of beneficiaries' on financial literacy were measured using five point likert scale with eleven items. But after doing EFA, the items were confined to eight items. Then the scale was validated by testing the convergent and discriminant validities and the reliability which were all satisfactory. The validated scale was conceptualized as a first order reflective construct, and it was confirmed by doing CFA too.

It was found out that with moderation, there is increase in R Squared value than without moderation. It was found that the moderation effect of financial literacy on the accessibility to usage is significant at 1% level of significance though the β value (0.14) seemed to be low; the effect of variations explained by moderation is positive and significant hence supported the hypothesis.

In simple terms, it can be concluded that those who have financial literacy have higher usage perceptions in the formal financial sector.

VII. 6. Effectiveness of Financial Inclusion Programme in the Holistic Approach:

Under holistic approach the effectiveness of FIP were measured based on the Usage perception. Effectiveness is measured by using its three dimensions; asset creation, income generation and employment opportunity. To study the effectiveness of FIP, from demand side, Beneficiaries were asked to respond before and after performance in the three economic aspects of impact of FIP. But respondents were not ready to disclose their income, employment and asset position. They had reported only the change before and after availing the loan like No change, increase or decrease. Majority of the respondents reported that, they had positive changes due to accessing credit in the three aspects of economic impact like their monthly income, days of employment and asset position and only twelve respondents reported they had decrease and the remaining 87 respondents reported that they have no change on the three aspects (asset creation, income generation and employment generation) due to credit access. This is the main

reason for going to the development of a model based on the perception of respondents beyond mere figures.

The conceptual model consists of independent variables, moderating variable and dependent variable. It was measured using Warp PLS 5. The path of the SEM showed statistical significance of the relationships among effectiveness of financial inclusion programme (three dimensions), its independent variable (two dimensions), and moderating variable (financial literacy). The path coefficients (β) and p values for the relationships are as shown clarifies that, all paths in the model were significant ($p<0.01$) and all path coefficients (β) were also positive indicating that an increase in any of these dimensions results in an increase in perceived effectiveness of the FIP.

The average path coefficient with moderation is 0.51 and it was 0.6 without moderation and ARS is 0.54 with moderation and it was 0.53 without moderation. Even though the difference in value is very small, the variation is due to the effect of moderating variable i.e., financial literacy. Also the path showed positively significant (positive beta coefficient). AVIF is 1.28, it also in the prescribed threshold limit. All other parameters like Tenenhaus GoF (GoF), Statistical suppression ratio (SSR), R-squared contribution ratio (RSCR), Sympson's paradox ratio (SPR) were same in both the models. i.e., model with moderation and without moderation.

The programme is effective in Kerala, based on the perception or through results of the study of holistic approach of FIP. Improvement is necessary in the execution of programmes by considering changing lifestyle and economic needs of the people.

As far as beneficiaries' perceptions on Financial Inclusion programme, demographic profiles and socio economic factors like age, gender, marital status, level of education, and income level did not explain significant variation. However differences in the coefficients were observed for different occupation level of respondents in the effectiveness of FIP. Even then all paths were positively significant at various levels of occupation.

Individual FII based on the perceptions of respondents as well as FII of Kerala and selected districts were also found out. The FII of selected Districts of Kerala, Palakkad

(0.61) Shows highest effectiveness based on perception of the respondents, followed by Kannur (0.56) and Idukki (0.49) showed the least FII. And finally Kerala's FII was 0.55.

Majority of the respondents belong to middle (40-50) age groups and were male, majority of the respondents are residing in the rural area (62.3 per cent) possessing SSLC level education (38.5 percent). It was found out that majority of the respondents (79 per cent) covered under the study were married people and were (53.3 per cent) agricultural labourers. These people are more conscious about their future and they are more savers and needs credit. Most of the respondents were under the monthly income brackets of Rs. 2500/--Rs. 5000/-, because majority of the respondents were agricultural labourers.

Majority of the respondents (74 percent) had two - three dependence in their family. And most of the respondents (96 per cent) were residing in their own home. Out of the selected respondents, majority were the customers of Public sector bank having access to credit and most of the respondents use their formal accounts for both accessing credit as well as savings purpose.

VII. 7. *Recommendations*

Important recommendations to improve FIP based on the findings of the study are as follows;

VII. 7. 1. Issues regarding the enabling policy like cumbersome legal and regulatory environment are to be revisited and re write to reduce the access barriers in reaching the lower bottom of economy.

VII. 7. 2. The programme is structured everywhere in India with equal set of policies in every state all over the country. As far as Kerala economy is concerned the plan should revisit based on the economic conditions prevailing in every state. Therefore, policy should be drawn in such a way to make flexibility based on the preference of the needy people in fixing the target limits.

VII. 7. 3. Appropriate products and services and better staffing policies can enhance the FIP significantly in contributing inclusiveness and growth of poor people by offering reliability, convenience, continuity and flexibility. And thus can improve accessibility to formal finance reduce debt trap by the private sector financial institutions.

VII. 7. 4 Still Kerala people give first preference for money lenders when they are in urgency. Therefore policies should be flexible enough to meet the urgent requirements of financial difficulties.

VII.7.5. Public sector Banks should consider natives as officers in the loan sanctioning sections of their Banks. It will help for reducing Language barriers and makes easier for the local people to deal with formal financial services through these steps.

VII.7.6. Improving the economic status is possible through the combined efforts of Banks and the government by giving subsidies and interest relaxation for the income generating activities like agriculture, or for any other self-employment programmes.

The above described are the recommendations based on the response from the beneficiaries as well as personal observations of the researcher.

VII. 8. Chapter Summary

This chapter presented the discussion on the research findings of the study. Findings were discussed in the light of previous studies in the literature and the research objectives. To sum up the discussion on the findings of the study and conceptual model analysis were the base, and the results are discussed from the resulted fit indices. FIP in Kerala is somewhat a success, but what we need is a regular and adequate follow-up about the execution of the programme.

The study also revealed the moderation effect of financial literacy interfering between accessibility perception and Usage perception.

Effectiveness of the FIP from the demand side were measured and reported on the basis of perceptions of the beneficiaries of the programme.

Recommendations are given based on the findings of the study. Some of the recommendations were done by the respondents themselves based on their experience on accessing and using formal financial services.

Chapter VIII
Implications, Suggestions & Conclusion

This chapter deals with practical implications for the Policy makers and Banks based on the findings evolved from the study. The limitations of the present research are provided which will help the future researchers to design and structure their research work and aid better understanding about the effectiveness of the financial inclusion programme (dependant variable) from a different perspective. The scope for future research also provided in this chapter as a guideline for the future researchers aiming the same field of study.

The outcome of this research makes certain that Financial Inclusion Programme (FIP) leads to economic growth of the poor. Financial literacy interferes between access and usage of formal financial services.

VIII. 1. Implications from the Study and Suggestions for the Policy Makers

VIII. 1. 1 The study takes into consideration the broader approach of financial inclusion programme, (economic impact) which recently attracted considerable attention from public authorities, financial sector stakeholders and academia, to reduce or eliminate the inefficiencies surrounding the conduct of specific types of financial transactions, and to increase the efficiency of financial inclusion programme.

VIII. 1. 2. Information about the impact of financial inclusion programme on economic growth will influence the priority that policy makers and advisors attach to reforming financial inclusion policies.

VIII. 1. 3. Academicians can consider the study findings for their future studies connecting financial literacy as a moderator for the access and use of financial inclusion.

VIII. 1. 4. The study has also analysed various determinants to choose formal financial services (mainly for credit accessing) of individual beneficiaries. Thus, the study will be useful for the practitioners for reducing cumbersome procedures of borrowings.

VIII.1.5. The supply side of FIP was also analysed, and reported the practical difficulties of implementing BC/BF model were mentioned. Thus the policy makers can reframe the said programmes with suitable instances to the Kerala economy

VIII.2. Suggestions

Based on the study findings, following suggestions can be made:

VIII.2.1. Banking regulators should simplify the procedures in handling loans to improve credit access to affordable financial services through financial education, leveraging technology, and generating awareness

VIII.2.2 Efforts are being made by the authorities- especially banking regulators to improve access to affordable financial services through financial education, leveraging technology, and generating awareness.

VIII.2.3 Senior managers should spend time regularly in direct, structured conversation with actual and potential customers.

VIII.2.4 Create feedback loops that Enable information from front-line staff to spread through the organization. Low-cost technology makes this easier than ever before.

VIII.2.5 Recruit front-line staff members that are able to build empathy with the customers, whether because they come from similar backgrounds, are screened for this ability or in some case are even former customers.

VIII.2.6 As the policies and programmes of financial inclusion are same all over India, many plans were not working in Kerala like BC/ BF model. Therefore, it should be flexible based on the economic situation, culture, and systems and beliefs prevailing in each State of India.

VIII.2.7 Government subsidies in the form of crop loans and relaxation for repayment should be allowed for those who has occurred loss due to natural calamities like Droughts, flood and cyclone.

VIII.3. Limitations and Challenges

Effectiveness of financial inclusion from demand side is measured using perceived values. Better results could be expected if it is based on actual figures rather than perception**.** Longitudinal research design would perhaps give more clarity on the explored factors.

Data collection from the beneficiaries of financial inclusion programme created the next challenge. The senior officials of concerned Banks had been taken into confidence with regard to the confidentiality and the strictly academic nature of the study. The Bank officials were promised a consolidated report of the research findings without referring to any Bank details.

VIII.4 Scope for Future Research

Future research can be carried out on financial inclusion programme based on the findings of this study and also can focus on the various facets of the programme like business correspondent or business facilitator model and its implications with a longitudinal research design. This research study has not extended fully to the various dimensions of the Financial Inclusion programme, here financial literacy is considered as one of the interference between accessibility perception and usage perception, and it was positively significant. The structural model developed in this research can be adapted by future researchers.

VIII.5 Conclusion

Banking sector has become a major target market for the poor and weaker sections of the society. In olden days, it was the platform for the upper sections of the society only. Reaching to the poor was a great milestone in the history of banking sector and it has a high potential for the growth of nation also. The study has identified determinants in accessing and using formal financial services as part of the Financial Inclusion programme and their hindrances in reaching to the milestone, in the Kerala context. The

effectiveness of Financial Inclusion programme can be fully achieved through the synergy of Banks, government and also Community. Financial Literacy acts as an interference to the accessibility and usage variable provided. Increased levels of financial literacy positively (increase the Usage perceptions) moderated the path of accessibility perception and usage perception.

The empirically validated structural models grounded in theory and the findings of the study could be used by practicing managers of banks and policy makers especially those who are engaged in the activities of financial inclusion programme related strategies.

The study throws light on the effect of Financial Inclusion Programme and usage variables on the accessibility and availability of beneficiaries. The findings will help the Banks and Government to formulate strategies to have long lasting customer relationships with the poor and weaker sections of the society by considering them as their target customers and thereby enhancing the profitability of the banking sector. Banking to the poor is not poor banking.

This research was a very significant learning practice for the researcher. Though the researcher had dealt with the programme through opening a BSBDA (Basic Savings Bank Deposit Account) for the last ten years to know the actual practices taken place in the present scenario of Indian context. This research has brought in new dimensions to the researcher's understanding. Also, this work helped to appreciate the role and application of research methodology in the area of banking and customer services.

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APPENDIX- I

Interview Schedule

I am Raihanath M P, doing research in the School of Management Studies, CUSAT on the topic of **Financial Inclusion**. Filling up of the schedule will take 15-20 minutes approximately. The purpose is purely academic and confidentiality is assured as providing the name and address is not required.

Demographic variables

1. Age: a).20-30 ☐ b) 30-40 ☐ c) 40-50 ☐ d) 50-60 ☐ e) above 60 ☐

2. Gender: a)male ☐ b)female ☐

3. Residence: a) Rural ☐ b)rural hilly ☐ c)semi- urban ☐ d) Urban ☐

Socio-economic variables

Education, occupation, income, expenditure, housing condition and living status

4. Education: a) Illiterate ☐ b) Primary ☐ c) SSLC ☐
   d) Plus-two/ Pre- degree ☐ e) Degree ☐ f) others (please specify) ☐

5. Marital status: a) married ☐ b) Unmarried ☐ c) widow/divorced/deserted ☐

6. Occupation: a) Agricultural labourers ☐ b) Farmers ☐ c) house wives ☐
   d)Others ☐ ecify)

7. Average Monthly Income from all sources: a) Below 2500 ☐ b) 2500-5000 ☐
   C) 5000-7500 ☐ d) 7500-10000 ☐ e) 10000 and above ☐

8. Number of dependent: a)2-3 ☐ b)4-5 ☐ c) 6-7 ☐ d)7 and above ☐

9. Housing condition: a) Own house ☐ b)Rented house ☐

10. In which type of Bank do you have your bank account? a)Public sector bank ☐
    b) Private sector bank ☐ c) Grameen bank ☐ d) Co-operative Bank ☐
    e) Others ☐

11. Number of bank accounts using: a) only one ☐ b)two ☐ c)three ☐
    d) Four & above ☐

12. Purpose of usage: a) Savings ☐ b)Credit ☐ c) Both ☐ d)Others ☐

13. Do you have savings in the formal financial sector? a)yes ☐ b)No ☐

14. If yes specify your average monthly savings a) Below 5 % ☐ b) between ☐
    5% - 10% ☐ c) 10%-15% ☐ d) 15% and above ☐

15. Sources of information regarding the Banking services: a)friends & relatives
    b)Newspaper ☐ c)TV/Radio ☐ d) Flex boards ☐ e)Internet ☐

16. If Yes, specify the scheme: a)KCC b) GCC C) Other micro-credits ☐

17. Rank your preferences for the following statements

Us R	Reasons for usage of formal financial services	Rank
	1. Speed of service	
	2. Easy to use and Convenience	
	3. Cost Effectiveness	
	4. Better customer service	
	5. Operational efficiency	
	6. Responsiveness	
	7. Proper sanctioning of loans	
	8. Lower interest rate	
	9. Efficiency	
	10. Problem Handling and compensation	

18. Problems while using formal financial services (Rank your problems)

Us R	1. Limited know-how of mainstream providers 2. Non-business-friendly environment 3. Procedural delay 4. Improper sanctioning 5. Lack of banker's interest 6. Poor customer service 7. Tedious and cumbersome procedures Distance to be travelled	

19. If the amount is utilized for income generating activity, state

a) Nature of activity i.e., whether it is 1) full time ☐ 2) part-time ☐

b) Type of the activity: ☐

c) Average income from activity	Below 5% of investment	5%-10% of investment	10%-15% of investment	Above 15% of investment

20. Did you create any additional employment opportunity from the credit you availed?

a) Yes ☐ b) No ☐

21. Measuring effectiveness of financial inclusion programme

Particulars	Before availing the loan	After availing the loan	Percentage Change (increase/decrease)
Average monthly income			
Average days of employment			
Asset position (personal assets)			

Please mark the extent of agreement/ disagreement for the following statements.

5- Strongly agree, 4- agree, 3- neutral, 2- disagree, 1- strongly disagree

Code	Q No.	Financial inclusion measurement variables	5	4	3	2	1
Ac 1	22	**Regular financial services:** I have access to services that address my daily needs. (Access to affordable and flexible livelihood financing)					
Ac 2	23	I have access to financial services that help me to investing economic opportunities					
Ac 3	24	I have access to services that address my long-term needs					
Ac 4	25	I have access to sound and pragmatic financial services					
Ac 5	26	I have access to transparent advice on financial services					
Ac 6	27	Am able to Access risk mitigation services like health, weather, asset and life insurance etc.					
Ac 7	28	I have access to vulnerability reducing and economic capacity enhancing financial service like warehouse Receipt financing, Value Chain financing etc.					
Ac 8	29	I have access on other financial services like micro pensions					
		Extend of Usage: Please mark the frequency for the following statements (VF- Very Frequently, F-Frequently, O-Often, NSO-Not So Often, N-never)	VF 5	F 4	O 3	NSO 2	N 1
Us 1	30	I have the ability to use savings products in the bank that promotes thrift					
Us 2	31	I am able to use of transaction banking to manage remittances					
Us 3	32	I have ability to use credit facilities to smoothen income variations					
Us 4	33	Usages of insurances services to guard against uncertainties					
Us 5	34	I find that the services I use are convenient affordable, and transparent					
Us 6	35	I am able to use post office savings service					
Us 7	36	I have the ability to use ATM, Kisan Credit Cards, General Credit Cards, and other micro credit facilities like SHG- Bank linkage, Agri-gold loan etc. for the financial transactions					
Us 8	37	Usage of mobile and other modes for banking services to receive government benefits					

38. Financial literacy – Please mark the extend of awareness on the following statements (SA-Strongly Aware, FA-Fairley Aware, N-Neutral, PA-Poorly Aware, NA-Not Aware)

		SA	FA	N	PA	NA
FL1	I have awareness on Filling up of application					
FL2	I am aware of Long-term benefits of savings					
FL3	I am aware of Consequences of default					
FL4	I am aware of Rate of interest on various deposits and loans					
FL5	I am aware of Security required for loan required					
FL6	I am aware of Internet Banking					
FL7	I am aware of Debit Card/Credit card					
FL8	I am aware of Online Banking					

39. Please mark the extend of your agreement or disagreement (income generation, asset creation, and employment generation) for the following statements (5- Strongly agree, 4- agree, 3- neutral, 2- disagree, 1- strongly disagree)

Sl. No	Items	SA 5	A 4	N 3	SD 2	D 1
1	I obtained the initial capital through bank loan					
2	I procure the raw materials used from the bank loan					
3	I procure the machinery used from the bank loan					
4	The credit scheme helps me for increasing my asset position					
5	I procure some short-term assets needed by using the formal credits					
6	I procure some medium-term or long-term assets through the loan amount					

7	Bank loan is helpful for me to increasing my livelihood					
8	Bank loan is helpful to fulfil my practical needs					
9	Bank loan is helpful to fulfil my long-term needs					
10	My financial need was positively affected by the services of banks					
11	I got encouragements for my future needs also from the bank loan					
12	My personal asset position was positively affected by the services of banks					
13	I finance other expenses incurred of my products/services from a microfinance bank loan					
14	The loan amount is helps to generate employment opportunity					
15	Loan amount was useful for providing additional days of self-employment					
16	It was helpful to generate employment for others with my loan amount					
17	I think the employment opportunity leads more people come to use the formal credits that I can pay the wages and salaries of workers from the bank loan					

Thank you for your kind co-operation

APPENDIX-II

Road map villages

Name of the district	Name of the block	Name of unbanked Village	Name of the Panchayath	Population	Name of the bank Allocated to the village	Technology to be used by the bank
ALAPPUZHA	Haripad	Cheruthana	Cheruthana	12944	SBT	BC Model
	Ambalapuzha	Paravur	Punnapara	26964	IOB	Branch Banking
	Thycattussery	Pallipuram	Chennam-Pallipuram	27307	PNB	Branch Banking
	Muthukulam	Puthuppally	Devikulangara	20758	Fed Bank	BC Model
	Muthukulam	Pathiyoor	Muthukulam	22184	Corp Bank	BC Model
CALICUT	Kunnamangalam	Perumanna	Perumanna	28027	SBT	Branch Banking
	Perambra	Koothali	Koothali	10212	Can Bank	BC Model
	Koduvally	Madavoor	Madavoor	25358	IOB	BC Model
	Perambra	Cheruvannur	Cheruvannur	22150	Fed Bank	BC Model
	Panthalayani	Chengottukavu	Chengottukavu	25293	SMGB	BC Model
ERANAKULAM	Kothamangalam	Iramalloor	Nellikuzhy	28223	SBT	BC Model
	Edappally	Kadamakuddy	Kadamakuddy	15824	UBI	BC Model & Branch
	Koovapady	Vengoor West	Mudakuzha	17318	Fed Bank	BC Model
IDUKKI	Azhutha	Manjumala	Vandiperiyar	22629	SBT	BC Model
	Idukki	Elappally	Arakkulam	4849	SBT	BC Model
	Adimali	Anaveratty	Pallivasal & Vellathoova	5006	UBI	BC Model
	Adimali	Kanthipara	Senapathi	10584	UBI	BC Model
	Idukki	Upputhode	Vathykudi,Mariapuram, Ka	10615	UBI	BC Model
	Adimali	Parathode	Nedumkandam	21525	UBI	BC Model

	Adimali	Keezhamboor	Kanthaloor	3359	UBI	BC Model
	Devikulam	Kootakambbor	Vattavada	2209	UBI	BC Model
	Adimali	Pallivasal	Pallivasal	11759	Fed Bank	BC Model
KANNUR	Irikkur	Mayyil	Puthiyatheru	27605	SBT	BC Model
	Irikkur	Chelery	Kolacherry	10105	NMGB	Satellite Branch
	Peravoor	Kanichar	Kanichar	16200	Fed Bank	BC Model
	Irity	Payam	Payam	27536	NMGB	Satellite Branch
	Irity	Pattanoor	Koodali	14145	Can Bank	BC Model
	Peravoor	Vellarvally	Peravoor	7873	Synd Bank	BC Model
KASARAGODE	Manjeswar	Pavoor	Vorkady	6916	NMGB	Satelite Branch
	Nileshwar	Kodakkad	Pilicode	9716	Synd Bank	BC Model
	Manjeswar	Badoor	Puthige	5296	NMGB	Mobile Van
	Manjeswar	Kadambar	Meenja	2362	NMGB	Mobile Van
	Manjeswar	Bellur	Bellur	3335	NMGB	Mobile Van
KOLLAM	Pathnapuram	Alayman	Alayman	12869	SBT	BC Model
	Pathnapuram	Edamulackal	Edamulackal	22142	SBT	BC Model
	Ithikkara	Pallimon	Nedumbana	19920	SBT	BC Model
	Ithikkara	Chirakkara	Chirakkara, meenad	17184	IB	Branch Banking
	Pathanapuram	Pattazhy vadakkekka ra	Pattazhy vadakkekkara	14775	IB	Branch Banking
	Chittumala	Panayam	Panayam	24397	IOB	BC Model
	Kottarakkara	Kareepra	Kareepra	28888	IOB	BC Model
	Chavara	Vadakkumthala	Panmana	19413	BOI	BC Model
	Mukathala	Kottamkara	Kottamkara	43732	SBI	Branch Banking
	Vettikavala	Mylom	Mylom	22425	Fed Bank	BC Model
	Ochira	Pavumba	Thazhava	16413	Dhana laxmi Bank	BC Model

KOTTAYAM	Kanjirapally	Cheruvally	Chirakadavu	5783	SBT	BC Model
	Pampady	Elikulam	Elikulam	10220	SBT	BC Model
	Pallom	Onamthruthu	Neendoor	13621	SBT	BC Model
	Pallom	Velur	Kottayam muncipality	1600	Can Bank	BC Model
	Pallom	Chengalamsouth	Thiruvarpu	15200	PNB	BC Model
	Erattupetta	Punjar vadakkekara	Thalanadu	8456	Fed Bank	BC Model
MALAPPURAM	Wandoor	Karakunnu	Thrikkalangode	13992	SBT	BC Model
	Tanur	Pariyapuram	Tanur	22766	SBT	BC Model
	Tirur	Ananthavoor	Tirunavaya	17470	SBI	BC Model
	Wandoor	Trikkalangode	Trikkalangode	12741	Can Bank	Branch Banking
	Tirurangadi	Nannambra	Nannambra	35532	Can Bank	Branch Banking
	Nilambur	Kurumbakangod	Chungathara	20017	PNB	BC Model
	Perinthalmanna	Kariyavattom	Vettathoor	13331	PNB	BC Model
	Mankada	Kootilangadi		31147	SIB	BC Model
	Wandoor	Vettikattiri	Pandikkad	17641	Fed Bank	BC Model
	Wandoor	Chembrasseri	Pandikkad	13466	Fed Bank	BC Model
	Areacode	Muthuvallur	Muthuvallur	31157	Dhana laxmi Bank	BC Model
	Wandoor	Perakamanna	Perakamanna	17079	Dhana laxmi Bank	BC Model
	Tanur	Niranaruthur	Niranaruthur	25547	Corp Bank	BC Model
	Tanur	Ozhur		29836	CSB	Hybrid ICT Model
PALAAKKAD	Manarcaud	Koottopadam Iii	Koottopadam	12517	SBT	BC Model
	Manarcaud	Kumaraputhur	Kumaraputhur	15346	SBT	BC Model
	Chittur	Thekkedesam	Nallepally	12871	SBT	BC Model
	Kollengode	Vadavannur	Vadavannur	16378	SBT	BC Model
	Kuzhalmannam	Kuzhalmannam ii	Kuzhalmannam	10073	SBT	BC Model

	Alathur	Thenkurissi ii	Thenkurissi	12791	SBT	BC Model
	Attapadi	Sholayur	Sholayur	7526	SBI	BC Model
	Manarcaud	Palakkayam	Thachampara	9354	SBI	BC Model
	Manarcaud	Karakurissi	Karakurissi	25161	SBI	BC Model
	Sreekrishnapuram	Trikaderi ii	Trikaderi	14681	SBI	BC Model
	Pattambi	Onganallur ii	Onganallur	20268	SBI	BC Model
	Ottapalam	Vaniamkulam ii	Vaniamkulam	15094	SBI	BC Model
	Koozhalmannam	Kootayi ii	Kootayi	8831	SBI	BC Model
	Alathur	Tarur ii	Tarur	8607	Can Bank	BC Model
	Alathur	Kavasseri i	Kavasseri	15564	Can Bank	BC Model
	Alathur	Kizhakkancherry ii	Kizhakkancherry	16988	Can Bank	BC Model
	Attapadi	Padavayal	Agali	6764	Can Bank	BC Model
	Chittur	Perumatty	Perumatty	7588	Can Bank	BC Model
	Manarcaud	Kottopadam i	Kottopadam	12936	Can Bank	Branch Banking
	Trithala	Thirumattacod-i	Thirumattacode	17255	PNB	BC Model
	Ottapalam	Ambalapparai	Ambalappara	12418	PNB	BC Model
	Koozhalmannam	Peringottukurissi i	Peringottukurissi	11482	PNB	BC Model
	Manarcaud	Alanallur ii	Alanallur	10997	Fed Bank	BC Model
	Koozhalmaanam	Mathur ii	Mathur	12324	Fed Bank	BC Model
	Manarcaud	Thachanattukara i	Thachanattukara	13232	Vijaya Bank	BC Model
	Manarcaud	Thachanattukara ii	Thachanattukara	10523	Vijaya Bank	BC Model
	Alathur	Kannambra i	Kannambra	13737	Corp Bank	BC Model
	Attapadi	Pudur	Agali	5798	Dist Co-op Bank	Mobile Van
PATHANAMTHITTA	Mallapally	Perumpatty	Kottanad	14581	SBT	BC Model
	Kozhipuram	Telliyoor	Azhumattor	8236	SBT	BC Model
	Ranni	Chethackal	Ranni pazhavangadi	15781	SBT	BC Model

	Konni	Konni tazham	Konni tazham	14666	SBT	BC Model
	Ranni	Kollamulla	Kollamulla	22765	SBI	BC Model
	Konni	Iravon	Aruvappulam	10246	Fed Bank	BC Model
	Parakode	Erathu	Erathu	25005	Dhanl axmi Bank	BC Model
Trichur	Pazhayannur	Thonoorkkara	Chelakkara	6287	Can Bank	BC Model
TRIVANDRUM	Vellanad	Veeranakavu	Poovachal	25813	SBT	BC Model
	Kazhakuttom	Andoorkonam	Andoorkonam	14736	SBT	BC Model
	Kazhakuttom	Melethonnakkal	Mangalapuram	16959	SBI	BC Model
	Kilimanoor	Vellallor	Nagaroor	11842	IOB	BC Model
	Vamanapuram	Kurupuzha	Nandiyode	11630	IOB	BC Model
	Vamanapuram	Koliyakode	Pothencode	18973	UBI	BC Model
	Vamanapuram	Thennor	Peringamala	12972	BOI	BC Model
	Parassala	Parasuvakkal	Parassala	17092	Synd Bank	BC Model
	Kilimanoor	Koduvazhannoor		8411	SIB	BC Model
	Perumkadavila	Vazhichal	Amboori	10606	Fed Bank	BC Model
WAYANAD	Kalpetta	Achoornam	Pozhuthana	9754	SBT	BC Model
	Kalpetta	Vellarimala	Meppady	8730	SBT	BC Model
	Kalpetta	Trikkaripetta	Meppady	10384	SBT	BC Model
	Kalpetta	Kottathara	Kottathara	16816	SBI	BC Model
	Mananthavady	Cherukattur	Panamaram	10806	Can Bank	BC Model
	Sultansbathery	Krishnagiri	Meenangadi	12597	Can Bank	BC Model
	Kalpetta	Kuppadithara	Padinjarethara	9649	Can Bank	BC Model
	Mananthavady	Thirunely	Thirunely	11719	PNB	BC Model
	Sultansbattery	Thomattuchal	Ambalavayal	17744	SMGB	BC Model
	Kalpetta	Thariode	Thariode	1859	SMGB	BC Model

Source: State level Bankers Committee, Kerala.

APPENDIX-III.

FLCs working in Kerala				
District	**Location (Metro, Urban, Semi-Urban, Rural)**	**Name of the Bank**	**Date of Start of functioning**	**Address**
Trivandrum	Trivandrum Corporation (Urban) *(Other than SLBC allotted)*	IOB	10.02.2011	FLC [SNEHA] , TC - 14/1609 & 161 (Near IOB RSETI), Forest Office Lane, Vazhuthacaud, Trivandrum – 695 014
	Pothencode (Semi Urban)	SBT	22.12.2012	FLC, C/o State Bank of Travancore, Jisha Buildings, Pothencode P.O., Trivandrum.
	Kattakkada (Semi Urban)	Federal Bank	28.03.2012	Federal Ashwas FLC, (In association with, Malankara Social Service Society), St. Mary's Malankara Church Compound, Choondupalaka, Kattakada P,O
	Chirayankeezhu (Semi Urban)	South Indian Bank	18.03.2013	SIB FLC, Akshaya E-Centre, Galleon, Chekkalavilakkom Junction, Kadakkavur, Trivandrum
	Kilimanur (Semi Urban)	SBI	20.03.2013	FLC, C/o. SBI Thattathumala Branch, Reema Complex, Kilimanoor, Trivandrum - 695601
	Nemom (Rural)	Catholic Syrian Bank	20.03.2013	Ground Floor, Simon Building, Convent Road, Pravachambalam, Nemom P O, Thiruvananthapuram.
	Athiyannoor Block (Semi Urban)	Canara Bank	31.07.2013	FLC, C/o. Canara Bank, Kamukincode,
	Varkala (Semi Urban)	CBI	22.11.2013	CBI-FLC, C/O Akshaya E- Centre, Punnamoodu, Varkala (P.O).
	Parassala (Semi Urban)	Indian Bank	16.12.2013	FLC, C/o. Indian Bank, Parassala, Trivandrum
	Vamanapuram Block (Semi Urban)	UBI	23.01.2014	Union Bank FLC, PGM Building, Pirappencode P.O, Trivandrum
	Perumkadavila Block	Syndicate Bank	13.06.2014	Jnana Jyothi FLC, Perumkadavila Block, Trivandrum - 695124

	Nedumangad	Bank of India	21.06.2014	FLC, Nedumangad, Trivandrum
Kollam	Kollam Corporation (Urban) *(Other than SLBC allotted)*	Indian Bank	09.06.2011	FLC, Indian Bank Towers, Main Road, Kollam
	Kottarakkara (Rural)	Federal Bank	04.03.2013	Federal Ashwas FLC, Building No. 53/IV/KP, Govinda Mangalam Road, Pulamon P.O, Kottarakkara.
	Vettikkavala (Semi Urban)	Indian Overseas Bank	15.03.2013	IOB FLC, Sneha, Melila Grama Panchayath Building, Chengamanad Junction, Chengamanad P.O, Kollam
	Chavara (Semi Urban)	South Indian Bank	18.03.2013	Akshaya E Centre, Chenankara Jn, Thevalakara P,O, Kollam
	Keralapuram, Mukhathala Block (Semi Urban)	State Bank of India	15.03.2013	FLC, C/o. SBI, Keralapuram, Devan's Plaza, Keralapuram, Chanthanathope P.O, Kollam
	Pathanapuram (Semi Urban)	SBT	26.03.2013	FLC, C/o. State Bank of Travancore, Abraham Complex, K.P.Road, Pathanapuram
	Ithikkara Block (Semi Urban)	Canara Bank	31.07.2013	FLC, C/o. Canara Bank, Adichanalloor, Kollam - 691 573
	Bharanikavu / Sasthamcotta	Catholic Syrian Bank	29.01.2014	CSB Viswas FLC, Bharanikavu, Sooranadu, Kollam
	Anchal (Semi Urban)	Central Bank of India	08.11.2013	CBI-FLC, C/O Akshaya Jana Seva Kendra, Opp. Plavilayil Complex, Market Junction, Anchal, Kollam
	Chadayamangalam (Semi Urban)	Indian Bank	16.12.2013	FLC, C/o. Indian Bank, Chadayamangalam, Kollam
	Chittumala Block (Semi Urban)	Union Bank of India	27.01.2014	Union Bank FLC, Block Office, Chittumala, Kundara, Kollam
	Oachira Block	Corporation Bank	27.03.2014	C/o. Corporation Bank, Pavumba
Pathanamthitta	Konni (Semi Urban) *(Other than SLBC allotted)*	SBT	01.05.2011	SBT- FLC, Lead Bank, SNDP Yogam Bldg. Near Collectorate

	Ranni Block (Rural)	Federal Bank	09.04.2012	Federal Ashwas FLC, Catholic Centre, College Road, Pazhavangadi P.O, Ranni, Pathanamthitta – 689 673
	Koipuram Block (Semi Urban)	SIB	18.03.2013	FLC, Akshaya E centre, Pullavallil Building, Pullad P.O., Thiruvalla
	Pandalam Block (Semi Urban)	KGB	15.06.2013	Gramadeepam FLC, Ayathilmukku, Pandalam, Mudiyoorkonam P.O, Pathanamthitta
	Parakode Block (Semi Urban)	SBI	29.09.2013	FLC, C/o. SBI Elamanoor, Pournami Buildings, Elamannur P.O, Pathanamthitta - 691524
	Mallappally Block (Semi Urban)	IOB	27.07.2013	SNEHA FLC, Block Off Bldg, Mallappally(W)PO, Pathanamthitta
	Elanthur Block (Semi Urban)	Catholic Syrian Bank	07.11.2013	CSB Viswas FLC, P B No. 16, A.A.T.T. Devaswom Building Opp. Panchayath Bus Stand Kozhencherry, Pathanamthitta
	Pulikeezhu (Semi Urban)	Central Bank of India	15.11.2013	CBI-FLC, C/O Akshaya Jana Seva Kendra, N.S.S. Building, Podiyadi (P.O), Thiruvalla, Pathanamthitta.
	Chengannur (Semi Urban)	Central Bank of India	22.11.2013	CBI-FLC, C/O Akshaya Jana Seva Kendra, Catholic Building, M.C. Road, Nandavanam Junction, Chengannur, Pathanamthitta
Alappuzha	Mararikulam (Rural)	Federal Bank	11.01.2010	Federal Ashwas FLC, Gandhi Smaraka Grama Seva Kendram, S.L. Puram P.O., Alappuzha.
	Alappuzha (Urban)	Federal Bank	15.01.2010	Federal Ashwas FLC, Gandhi Smaraka Grama Seva Kendram Sub center, Moosariparampil, District Court Road, Thathampally P O.

	Kuttanad (Rural)	Federal Bank	10.02.2010	Federal Ashwas FLC, Gandhi Smaraka Grama Seva Kendram, Kuttanad Sub-Centre, Vezhapra, Ramankary P.O., Alappuzha
	Aryad (Semi Urban)	SBT	01.05.2011	SBT - FLC, Aryad Block Panchayat Building, Kalavoor P.O. Alappuzha – 688 522
	Haripad (Semi Urban)	SIB	18.03.2013	FLC, Sreevilasam Building, Akshaya E centre, Cheppad
	Thycattussery (Semi Urban)	Punjab National Bank	26.08.2013	PNB-FLC, Akshaya, E-Centre, CSC, Tputhenveli House, Manapuram P.O, Cherthala, Alappuzha
	Veliyanad Block (Rural)	Canara Bank	31.07.2013	FLC, C/o. Canara Bank, Pulincunnoo,
	Muthukulam Block (Semi Urban)	Indian Overseas Bank	25.07.2013	SNEHA FLC, Muthukulam Block Panchayat Office Bldg, Muthukulam, Alappuzha -690506
	Mavelikkara (Semi Urban)	UBI	25.02.2014	FLC, C/o Union Bank of India Mavelikkara Branch, Alakapuri Jn.
	Pattanakad Block	Corporation Bank	27.03.2014	C/o. Corporation Bank, Vayalar, Alappuzha
Kottayam	Pallom (Semi Urban)	SBT	01.05.2011	SBT - FLC, Jawahar Bala Bhavan, Thirunakkara, Kottayam – 686 001
	Pala (Semi Urban)	Federal Bank	17.05.2012	Federal Ashwas FLC, Sreevardhan Bldg. Near Alphonsa College, Arunapuram P.O, Pala, Kottayam
	Ettumanoor (Semi Urban)	State Bank of India	03.04.2013	FLC, C/o. SBI Ettumanoor, Pandasseril Buildings, Near Village Office, Ettumanoor, Kottayam
	Kaduthuruthy (Semi Urban)	SIB	18.03.2013	FLC, Akshaya E-Centre, Opp SBT Kaduthuruthy - 686604
	Vazhoor (Semi Urban)	Union Bank of India	25.06.2013	Union Bank FLC, Vattukattu Building No.IV/66A, Ponkunnam, Vazhoor, Kottayam

	Erattupeta Block (Semi-Urban)	Kerala Gramin Bank	10.09.2013	Gramadeepam FLC, Block Office Building (Annex), Erattupetta Block, Erattupetta P.O, Kottayam
	Vaikom (Semi Urban)	Dhanlaxmi Bank	01.08.2013	FLC, Dhanlaxmi Bank, NSS Building West Gate, Vaikkom.
	Kanjirappilly (Semi Urban)	Catholic Syrian Bank	31.07.2013	CSB Viswas FLC, T.M.C. Buildings, P.B. No. 109, Near Rubber Board Regional Office, K.K. Road, Kottayam
	Madapally Block (Semi Urban)	Canara Bank	31.07.2013	FLC, C/o. Canara Bank, Madapally, Kottayam-686 546
	Pampady Block (Semi Urban)	Indian Overseas Bank	26.07.2013	SNEHA FLC, I Floor, Chenattumattam Bldg, Opp Bus Stand, K K Road, Pampady, Kottayam - 686502
	Uzhavoor Block (Semi Urban)	Syndicate Bank	08.01.2014	FLC, Uzhavoor Block Office Bldg, Kozha P.O, Kuravilangad, Kottayam
Ernakulam	Perumbavoor, Koovapady (Semi Urban)	Union Bank of India	23.02.2011	Union Bank FLC, I Floor, Union Bank Bhavan, A.M.Road, Perumbavoor, Ernakulam – 683 542
	Mookkannoor (Semi Urban)	Federal Bank	27.04.2012	Federal Ashwas FLC, Pala Junction, Mookkannoor, Ernakulam
	Kothamangalam (Semi Urban)	Federal Bank	04.09.2012	Federal Ashwas FLC, Bishop House, Kothamangalam, Ernakulam
	Mulanthuruthy (Semi Urban)	Union Bank of India	09.11.2012	Union Bank FLC, Block Panchayath Building, Perumpilly, P.O. Mulanthuruthy, Ernakulam - 682314
	Edappally(Semi Urban)	Union Bank of India	14.11.2012	Union Bank FLC, Block Panchayath Building, Kusumagiri, P.O. Kakkanad, Ernakulam.
	Vypeen (Semi Urban)	State Bank of Travancore	24.12.2012	C/O State Bank of Travancore,Cherupully Buildings, Nayarambalam, Ernakulam

	Alangad (Semi Urban)	South Indian Bank	18.03.2013	SIB FLC, Akshaya Centre No. EK-314 Co-operative Bank Building, Chettibagham, Varapuzha.
	Parakkadavu (Semi Urban)	Union Bank of India	15.02.2013	Union Bank FLC No7/111L, Near Telephone Exchange, Moozhikkulam, Ernakulam
	Palluruthy (Semi Urban)	Dhanlaxmi Bank	01.08.2013	FLC, C/o.Dhanlaxmi Bank, Palluruthy Branch, No.23, 2642C, ASB Estate, Palluruthy
	Muvattupuzha	State Bank of India	25.03.2013	FLC, C/o. SBI, Muvattupuzha, Aramana Complex, Muvattupuzha
	Collectorate, Kakkanad (Urban)	Union Bank of India	02.09.2013	FLC, C/o. Union Bank of India RSETI, Ground Floor, Old Block Collectorate, Kakkanad
	Vaduvacode (Semi Urban)	Punjab National Bank	26.08.2013	PNB-FLC, Akshaya Centre, Mechirappattu Building Opp Fact Main gate, Ambalamedu (PO)
	Pampakuda Block (Semi Urban)	Canara Bank	31.07.2013	FLC, C/o. Canara Bank, Ramamangalam.
	Parur Block (Semi Urban)	Bank of India	20.12.2013	FLC, C/o. Bank of India, Parur Main Branch, Star House, Parur.
	Vazhakkulam Block (Rural)	Syndicate Bank	07.01.2014	FLC, Vazhakkulam Block Panchayat Office Bldg, S.Vazhakulam,
	Angamaly (Semi Urban)	Canara Bank	19.01.2015	FLC, C/o. Canara Bank, Angamaly, Ernakulam
Idukki	Nedumkandam (Semi Urban)	Union Bank of India	19.03.2011	FLC, C/o. Union Bank of India RSETI, Block Panchayat Bldg, Nedumkandam, Idukki - 685553
	Thodupuzha (Semi Urban)	Federal Bank	28.01.2012	Federal Ashwas FLC, TM/98A/28, Aniyaveettil Bldg., Vengallur P.O, Thodupuzha, Idukki - 685608
	Azhutha (Semi Urban)	State Bank of Travancore	24.12.2012	FLC, C/o. State Bank of Travancore, PB. No.1, Rosappookandam Road, Kumily.P.O., Idukki-685509

	Devikulam (Semi Urban)	State Bank of Travancore	12.01.2013	FLC, C/o.State Bank of Travancore, AM Road,P.B.No.1, Munnar.P.O., Idukki District
	Udumbanoor, Elamadesam	State Bank of India	20.09.2013	FLC, C/o. SBI Udumbanoor, Puthenpurayil Buildings, Udumbanoor, Idukki - 685595
	Kattappana (Semi Urban)	State Bank of India	16.08.2013	FLC, C/o. SBI Kattappana ADB, Kattappana, Idukki - 685508
	Idukki (Semi Urban)	South Indian Bank	18.03.2013	Akshaya E-Centre, Info world IT centre, Mariya Towers, Idukki Colony P.O, Cheruthony
	Adimaly (Semi Urban)	UBI	15.09.2013	FLC, Kannattu Shopping Complex, Kallarkutty Road, Adimaly, Idukki
	Thodupuzha (Semi Urban)	Canara Bank	14.01.2015	FLC, C/o. Canara Bank, Thodupuzha, Idukki
Thrissur	Ollukara (Urban)	Canara Bank	19.11.2010	AMULYA FLC, T. C. 29/670, Shornur Road, Near Kousthubham Auditorium, Thrissur - 680022
	Irinjalakkuda (Semi Urban)	Federal Bank	15.11.2012	FAFLC, Social Action Forum, Chathakunnu, Irinjalakkuda.
	Vellangallur (Semi Urban)	South Indian Bank	18.03.2013	FLC, Akshaya Centre No. 717, Cheradai Complex, Velukkara Panchayath Centre, P.O
	Chalakudy (Semi Urban)	State Bank of India	01.04.2013	FLC, C/o. SBI Chalakkudy, South Junction, Chalakudy.
	Thalikkulam Block (Semi Urban)	Kerala Gramin Bank	06.09.2013	Gramadeepam FLC, KGB Thriprayar branch, Nidhun Shopping Complex, Nattika P.O.
	Cherpu (Semi Urban)	Dhanlaxmi Bank	01.08.2013	FLC, Monons Complex, Kodannur-Ammadam Road, Palakkal.
	Chavakkad (Semi Urban)	Indian Overseas Bank	01.08.2013	Sneha FLC, 7/38E1, N K Complex, Opp. Chavakkad Municipal Bus Stand, Thrissur
	Mullassery (Semi Urban)	Catholic Syrian Bank	31.07.2013	FLC CSB Viswas, Near Catholic Syrian Bank, Q 8 Complex,

				Mecheripady PO, Velkitalgu.
	Mala (Semi Urban)	Union Bank of India	30.09.2013	FLC, C/o. Union Bank of India, Mala Branch, Thrissur
	Mathilakam (Semi Urban)	HDFC Bank	10.09.2013	FLC, Mathilakam Block, LKB Founders Memorial Building, Ist Floor, Sringapuram, Kodungallur,
	Pazhayannur (Semi Urban)	Punjab National Bank	26.08.2013	Akshaya Center, Pazhayannur Jn, Ambalanada Paruthukattil House, PO Elandu, Thrissur
	Chowwannur Block (Semi Urban)	Canara Bank	31.07.2013	FLC, C/o. Canara Bank, Pazhanji.
	Wadakkanchery (Semi Urban)	SBT	20.04.2013	FLC, C/o. SBT, Shornur Road, Wadakkanchery, Thrissur
	Anthikkad Block (Semi Urban)	Bank of India	20.12.2013	FLC, C/o. Bank of India, Kandassankadavu Branch, Thrissur
	Puzhakkal Block	Bank of Baroda	31.03.2014	Saarthee FLC, Opp. Bank of Baroda, Peramangalam, Thrissur
	Kodakara Block	Syndicate Bank	11.06.2014	Jnana Jyothi FLC, Kodakara Block Panchayat Building, Puthukkad.
Palakkad	Palakkad Block (Semi Urban)	Canara Bank	19.11.2010	AMULYA FLC, Room No. 17; ASR Plaza; Opp. Priyadarsini Theatre, RS Road, Palakkad
	Chittur (Rural)	Federal Bank	03.03.2012	Federal Ashwas FLC, Vision India Foundation Trust, Chittur, Palakkad
	Kuzhalmannam (Semi Urban)	State Bank of Travancore	30.10.2012	FLC, C/o State Bank of Travancore, KMS Building, Kuzhalmannam, Palakkad
	Kollengode (Semi Urban)	State Bank of Travancore	24.12.2012	FLC, C/o State Bank of Travancore, Gayatri Complex, Kollengode, Palakkad
	Alathur (Semi Urban)	SIB	18.03.2013	FLC, Akshaya E Centre, Opp. Supplyco , Thrippalur, Palakkad

	Nemmara (Semi Urban)	Dhanlaxmi Bank	01.08.2013	FLC, Dhanlaxmi Bank, I. G. Towers, Vallanghi, Nemmara P.O.
	Sreekrishnapuram (Semi Urban)	State Bank of India	23.09.2013	FLC, C/o. SBI Kadampazhipuram, Panchayat Bus stand Building, Kadampazhipuram, Palakkad
	Pattambi (Semi Urban)	State Bank of India	20.09.2013	FLC, C/o. SBI Pattambi, Amritha Towers, Mele Pattambi, Palakkad
	Thrithala (Semi Urban)	Catholic Syrian Bank	05.08.2013	CSB Viswas FLC, Cheeran Houses, MGRA 47, Kaniyambal, Punnakulam PO, Palakkad
	Malampuzha Block (Rural)	HDFC Bank	25.08.2013	FLC, Malampuzha Block, First Floor, HDFC Bank Building, 12/799, Chembalode, Thrissur Bye Pass Road, NH 47, Chandra Nagar.
	Attappady Block (Rural)	Canara Bank	01.03.2014	FLC, C/o. Canara Bank, Agali, Palakkad
	Ottapalam (Semi Urban)	Punjab National Bank	04.01.2014	PNB-FLC, Akshaya 3-centre, Techno World Digital Technologies, Kudumbashree IT Unit, Ottapalam, Palakkad.
Malappuram	Malappuram Block (Urban)	Canara Bank	19.11.2010	AMULYA FLC, 2nd Floor; Uphill.
	Chungathara (Rural)	Federal Bank	03.04.2012	Federal Ashwas FLC, Eranad Development Society, Near St. Mary's Church, Chungathara P.O
	Perumpadappu (Semi Urban)	South Indian Bank	18.03.2013	FLC, Akshaya Centre, Kalathil Padi, Perumpadappu, Malappuram
	Ramapuram, Mankada Block (Semi Urban)	Kerala Gramin Bank	20.04.2013	FLC, Block Office Complex, Ramapuram, Mankada, Malappuram
	Kalikavu (Semi Urban)	SBT	27.03.2013	FLC, Pattikadan Buildings, Kalikavu Road, Kizhakkethala,
	Wandoor Block (Semi-Urban)	Kerala Gramin Bank	30.08.2013	Gramadeepam FLC, Wandoor Block Office Building, Wandoor P.O., Malappuram

	Ponnanni (Semi Urban)	Dhanlaxmi Bank	01.08.2013	FLC, C/o. Dhanlaxmi Bank, Edappal Branch, Govinda Builidng.
	Tirur (Semi Urban)	State Bank of India	13.09.2013	FLC, C/o. SBI Tirur, Thazepalam, Tirur, Malappuram .
	Tanur (Semi Urban)	Catholic Syrian Bank	05.08.2013	CSB Viswas FLC, Parappanangadi Road, P O Tanur, Malappuram
	Kondotty Block (Semi Urban)	Vijaya Bank	26.09.2013	Gnana Jyothi FLC, Kondotty, Vijaya Bank Building, Main Road, Kuruppath Kondotty Post
	Kuttippuram Block	Indian Overseas Bank	05.12.2013	FLC, C/o. Indian Overseas Bank, Valanchery VPIII / 217, Kozhikode Road, Valanchery, Malappuram
	Vengara (Semi Urban)	Punjab National Bank	04.01.2014	PNB FLC, Kacheripadi, Valiyora P.O, Vengara, Malappuram - 676304
	Perinthalmanna	ICICI Bank	23.06.2014	FLC, Perinthalmanna, Malappuram
Kozhikode	Balussery Block (Semi Urban)	Canara Bank	19.11.2011	AMULYA FLC, Room No: 21, Jaya Arcade, Post Office Road, Balussery, Kozhikode – 673 622
	Perambra (Rural)	Federal Bank	27.10.2012	FAFLC, Kozhikode Road, Perambra, Kozhikode
	Kozhikode (Urban)	Federal Bank	14.03.2013	Federal Ashwas FLC, Bank Road, Kozhikode
	Vadakara (Semi Urban)	State Bank of Travancore	15.03.2013	FLC, C/o State Bank of Travancore,Thilleri Complex, Convent Road, Vadakara.P.O.
	Koduvally (Semi Urban)	South Indian Bank	18.03.2013	FLC, Akshaya E-centre, Nr. Telephone Exchange, Pulloorampara, Thiruvampadi.
	Chelanur (Semi Urban)	State Bank of India	25.03.2013	FLC, C/o.SBI Narikunni, Vismaya Arcade, Nanminda Road, Narikunni, Kozhikode - 673585
	Panthalayani (Semi Urban)	State Bank of India	25.03.2013	FLC, C/o. SBI Quilandy, Main Road, Quilandy, Kozhikode

	Melady (Semi Urban)	State Bank of Travancore	22.03.2013	FLC, C/o State Bank of Travancore(70946), Benhur Plaza, Perambra Road, Payyoli.
	Thodannur Block	KGB	09.09.2013	Gramadeepam FLC, Thodannur Block Office Building, Thodannur.
	Tuneri Block	Kerala Gramin Bank	09.09.2013	Gramadeepam FLC, Tuneri Block Office Building Tuneri P.O, Nadapuram (Via), Kozhikode.
	Kunnamangalam Block (Semi Urban)	Canara Bank	31.07.2013	Amulya FLC, Mukkom Road, Kunnamangalam, Kozhikode
	Areekode (Semi Urban)	UBI	01.12.2013	FLC, Elattu Plaza, Pandikkadu Road, College Post, Manjeri.
	Kunnummel (Semi Urban)	PNB	04.01.2014	PNB-FLC, Akshaya e-centre, Mokeri P.O, Kozhikode
Wayanad	Kalpetta (Semi Urban)	Federal Bank	28.05.2010	Federal Ashwas FLC, Kainatty Arcade, Kainatty Junction Kalpetta.
	Sulthan Bathery Block (Semi Urban)	Canara Bank	19.11.2011	AMULYA FLC, High School Road, Meenangadi, Wayanad
	Sulthan Bathery (Semi Urban) *(Other than SLBC allotted)*	Federal Bank	18.02.2012	Federal Ashwas FLC, Shreyas P B No.77, Sulthan Bathery, Wayanad.
	Mananthavady (Semi Urban)	SBT	25.03.2013	FLC, C/o SBT, Mysore Road, Manathavady
	Panamaram (Semi Urban)	State Bank of India	23.09.2013	FLC, C/o. SBI Anjukunnu, Anjukunnu, Kellur, Wayanad.
Kannur	Kannur Block (Rural)	Syndicate Bank	26.09.2011	FLC, Door No.PPI 262/M.N.O.P, First Floor, Surag Bldg, Podikundu, Pallikkunnu P.O, Kannur - 4
	Pilathara (Rural)	Federal Bank	14.03.2012	Federal Ashwas FLC, Kairos, Holy Spirt Convent, Pilathara, Kannur.
	Payyannur (Semi Urban)	State Bank of Travancore	28.01.2013	C/O State Bank of Travancore, Payyannur (70259) P.B.No.4, Achuth Building, Kannur

	Irikkur (Semi Urban)	SIB	18.03.2013	SIB FLC, Akshaya E-centre, Irikkur Town, Irikkur P.O, Kannur
	Thalasseri (Semi Urban)	SBI	05.05.2013	FLC, C/o. SBI Thalassery, Gundest Road, Thalassery, Kannur - 670101
	Taliparamba Block (Semi-Urban)	KGB	14.06.2013	Gramajyothi FLC, Trichembaram Temple Road, P.O. Taliparamba.
	Panoor (Semi Urban)	IOB	04.09.2013	FLC, C/o IOB Kadirur Branch, 2/279 C , Subaida Building Main Road, Kadirur, Kannur
	Edakkad (Semi Urban)	UBI	30.09.2013	FLC, C/o. Union Bank of India, Chovva Branch, Kannur
	Irritty Blcok (Semi Urban)	Canara Bank	31.07.2013	Amulya FLC, C/o Canara Bank, Iritty, Kannur
	Nedumpuramchal Peravoor Block (Rural)	Vijaya Bank	08.08.2013	Gnana Jyothi FLC, Peravoor, Vyapaara Bhavan Building, Near Vijaya Bank, Nedumpuramachal, Poolakutti Post, Peravoor Block.
	Kuthuparamba (Semi Urban)	PNB	04.01.2014	PNB-FLC, Akshaya e-centre, Kuthuparamba, Kannur
Kasargod	Kasargod (Rural)	Syndicate Bank	27.09.2011	Jnana Jyothi FLC, KMC-VI, 43 C Anangoor, Kasargod
	Chittarikkal (Rural)	Federal Bank	05.07.2012	Federal Ashwas FLC, 1st Floor, St. Thomas Church Shopping Complex, Chittarikkal P.O.
	Kanhangad (Semi Urban)	State Bank of Travancore	21.03.2013	FLC, P.B.No.13, Main Road, Hosdurg (Kanhangad) P.O., Cannanore Dt., Kerala - 670315
	Manjeswar Block (Semi-Urban)	KGB	29.04.2013	Gramajyothi FLC, Badariya Towers, Hosangadi, P.O.
	Nileswar (Semi Urban)	IOB	01.08.2013	Sneha FLC, N1/864, AIWA Complex, Market Road, Nileswar
	Karadka Block	Corp.Bank	15.03.2014	C/o. Corporation Bank, Bovikan.
Source :SLBC Kerala				

APPENDIX-IV

District-Wise Data on Flow of Bank Credit to Minorities as On 30th September 2017.				
	Outstanding (Rupees in Crores)			
	AS ON 30.09.2016		**AS ON 30.09.2017**	
	No.	**Amount**	**No.**	**Amount**
TRIVANDRUM				
Christians	286820	3545.38	328213	4311.14
Muslims	189686	3386.07	241479	3418.18
Sikhs	72	3.65	227	7.01
Jains	45	0.96	49	0.94
NeoBudhists	18	0.41	47	4.75
Zorashtrians	7	15.00	7	0.07
Total	**476648**	**6951.47**	**570022**	**7742.09**
KOLLAM				
Christians	22150	2115.20	44934	2004.04
Muslims	27400	3210.10	48543	2386.64
Sikhs	0	0.00	4	0.23
Jains	0	0.00	0	0.00
NeoBudhists	0	0.00	0	0.00
Zorashtrians	0	0.00	0	0.00
Total	**49550**	**5325.30**	**93481**	**4390.91**
PATHANAMTHITTA				
Christians	163869	6752.00	239292	2238.00
Muslims	30957	1019.00	95829	680.00
Sikhs	0	0.00	0	0.00
Jains	0	0.00	0	0.00
NeoBudhists	0	0.00	0	0.00
Zorashtrians	0	0.00	0	0.00
Total	**194826**	**7771.00**	**335121**	**2918.00**
ALAPPUZHA				
Christians	67465	1622.50	75119	2533.00
Muslims	46359	1123.78	47965	1346.00
Sikhs	45	0.52	26	0.00

Jains	0	0.00	34	0.00
NeoBudhists	85	3.26	67	3.00
Zorashtrians	11	0.73	7	0.00
Total	**113965**	**2750.79**	**123218**	**3882.00**
KOTTAYAM				
Christians	219355	4961.28	218462	4934.88
Muslims	48085	920.04	45202	976.73
Sikhs	9	0.09	12	0.45
Jains	4	0.21	1	0.00
NeoBudhists	25	0.32	26	1.18
Zorashtrians	6	0.09	5	0.09
Total	**267484**	**5882.03**	**263708**	**5913.32**
IDUKKI				
Christians	224000	5711.41	133809	3096.64
Muslims	38195	981.94	36450	937.64
Sikhs	0	0.00	0	0.13
Jains	0	0.00	0	0.00
NeoBudhists	0	0.00	0	0.00
Zorashtrians	0	0.00	0	0.00
Total	**262195**	**6693.35**	**170259**	**4034.41**
ERNAKULAM				
Christians	275710	13999.39	293398	10750.65
Muslims	126237	5411.62	118747	4181.63
Sikhs	68	37.04	115	59.05
Jains	41	99.82	77	13.44
NeoBudhists	32	99.32	79	12.82
Zorashtrians	6461	97.85	112	17.30
Total	**408549**	**19745.04**	**412528**	**15034.89**
THRISSUR				
Christians	171954	6708.39	156240	6814.88
Muslims	83070	2012.45	82414	2564.47
Sikhs	25	0.80	14	0.13
Jains	15	0.50	0	0.00
NeoBudhists	11	0.14	12	0.11
Zorashtrians	8	0.07	14	0.77

Total	**255083**	**8722.35**	**238694**	**9380.36**
PALAKKAD				
Christians	104777	2673.68	109179	2633.84
Muslims	264908	4984.09	239845	5710.01
Sikhs	0	0.00	0	0.00
Jains	0	0.00	0	0.00
NeoBudhists	0	0.00	0	0.00
Zorashtrians	0	0.00	0	0.00
Total	**369685**	**7657.77**	**349024**	**8343.85**
MALAPPURAM				
Christians	56961	971.87	53696	1831.98
Muslims	621254	8077.69	494939	8508.63
Sikhs	11	1.09	0	0.00
Jains	0	0.00	0	0.00
NeoBudhists	0	0.00	0	0.00
Zorashtrians	0	0.00	0	0.00
Total	**678226**	**9050.65**	**548635**	**10340.61**
KOZHIKODE				
Christians	68496	1688.17	59600	2209.63
Muslims	163942	3587.56	171656	4773.43
Sikhs	41	5.24	24	1.94
Jains	11	0.07	2	0.07
NeoBudhists	22	0.09	20	0.44
Zorashtrians	7226	141.51	2	0.03
Total	**239738**	**5422.64**	**231304**	**6985.54**
WAYANAD				
Christians	134274	1376.05	164597	2864.99
Muslims	125783	1019.62	196525	2589.45
Sikhs	18	0.54	38	3.00
Jains	2	0.06	0	0.00
NeoBudhists	3	0.11	45	2.00
Zorashtrians	0	0.00	34	0.00
Total	**260080**	**2396.38**	**361239**	**5459.44**
KANNUR				
Christians	162632	2756.57	91096	2970.87

Muslims	148070	3903.14	151878	3059.28
Sikhs	13	0.47	2	0.00
Jains	2	0.12	2	0.04
NeoBudhists	24	0.12	4	0.72
Zorashtrians	189	9.49	1	0.02
Total	**310930**	**6669.91**	**242983**	**6030.93**
KASARGODE				
Christians	115882	1715.26	117836	1898.00
Muslims	225353	2054.94	235753	2582.00
Sikhs	16	1.29	17	3.00
Jains	12	0.18	14	1.00
NeoBudhists	87	0.70	0	0.00
Zorashtrians	1	0.03	76	1.00
Total	**341351**	**3772.40**	**353696**	**4485.00**
GRAND TOTAL	**4228310**	**98811.08**	**4293912**	**94941.34**

Source: SLBC, Kerala.

APPENDIX-V

FII supply side dimension details

Sl. No	Name of District	Number of bank branches	Volume of Deposits and Credits		
			Deposits	Credit	Total
			(Amounts in millions)		
1	Trivandrum	733	6,25,264	3,76,151	1001415
2	Kollam	389	2,65,505	1,76,850	442355
3	Pattanamthitta	385	3,56,650	86,139	442789
4	Aleppy	385	2,70,705	1,17,987	388692
5	Kottayam	506	3,31,692	1,66,821	498513
6	Idukki	177	51,675	56,648	108323
7	Ernakulam	1,015	8,52,679	7,53,211	1605890
8	Trichur	729	4,99,119	2,54,089	753208
9	Palakkad	422	2,07,853	1,26,389	1,26,389
10	Malappuram	446	2,13,954	1,15,426	329380
11	Kozhikode	448	2,46,416	1,73,718	420134
12	Wayanad	121	29,899	37,499	67398
13	Kannur	390	2,40,367	1,22,639	363006
14	Kasargod	222	75,207	58,895	134102
	Kerala	**6,368**	**42,66,986**	**26,22,463**	6889449

Source: RBI website

APPENDIX-VI.

Calculation of FII of individual Beneficiaries

Sl. No	***D1 =A1-m1/ M1-m1***		***D2= A2-m2/ M2-m2***		***FII= 1 /2 * (D1+D2)***	
1	20	0.63	23	0.74	1.37	0.685
2	28	0.88	24	0.77	1.65	0.825
3	21	0.66	19	0.61	1.27	0.635
4	20	0.63	23	0.74	1.37	0.685
5	23	0.72	23	0.74	1.46	0.73
6	22	0.69	20	0.65	1.34	0.67
7	21	0.66	17	0.55	1.21	0.605
8	20	0.63	18	0.58	1.21	0.605
9	28	0.88	23	0.74	1.62	0.81
10	21	0.66	13	0.42	1.08	0.54
11	20	0.63	23	0.74	1.37	0.685
12	23	0.72	23	0.74	1.46	0.73
13	22	0.69	19	0.61	1.3	0.65
14	21	0.66	23	0.74	1.4	0.7
15	24	0.75	20	0.65	1.4	0.7
16	23	0.72	20	0.65	1.37	0.685
17	22	0.69	23	0.74	1.43	0.715
18	22	0.69	23	0.74	1.43	0.715
19	21	0.66	23	0.74	1.4	0.7

20	21	0.66	19	0.61	1.27	0.635
21	20	0.63	23	0.74	1.37	0.685
22	21	0.66	24	0.77	1.43	0.715
23	20	0.63	23	0.74	1.37	0.685
24	23	0.72	23	0.74	1.46	0.73
25	22	0.69	19	0.61	1.3	0.65
26	21	0.66	6	0.19	0.85	0.425
27	20	0.63	24	0.77	1.4	0.7
28	23	0.72	20	0.65	1.37	0.685
29	20	0.63	17	0.55	1.18	0.59
30	23	0.72	18	0.58	1.3	0.65
31	22	0.69	23	0.74	1.43	0.715
32	21	0.66	10	0.32	0.98	0.49
33	22	0.69	23	0.74	1.43	0.715
34	21	0.66	23	0.74	1.4	0.7
35	21	0.66	19	0.61	1.27	0.635
36	20	0.63	23	0.74	1.37	0.685
37	21	0.66	20	0.65	1.31	0.655
38	20	0.63	20	0.65	1.28	0.64
39	23	0.72	23	0.74	1.46	0.73
40	22	0.69	23	0.74	1.43	0.715
41	21	0.66	23	0.74	1.4	0.7
42	23	0.72	11	0.35	1.07	0.535

43	24	0.75	20	0.65	1.4	0.7
44	20	0.63	26	0.84	1.47	0.735
45	28	0.88	20	0.65	1.53	0.765
46	21	0.66	23	0.74	1.4	0.7
47	20	0.63	20	0.65	1.28	0.64
48	23	0.72	23	0.74	1.46	0.73
49	22	0.69	20	0.65	1.34	0.67
50	21	0.66	23	0.74	1.4	0.7
51	22	0.69	21	0.68	1.37	0.685
52	21	0.66	23	0.74	1.4	0.7
53	21	0.66	21	0.68	1.34	0.67
54	20	0.63	21	0.68	1.31	0.655
55	21	0.66	21	0.68	1.34	0.67
56	22	0.69	21	0.68	1.37	0.685
57	22	0.69	19	0.61	1.3	0.65
58	21	0.66	17	0.55	1.21	0.605
59	21	0.66	11	0.35	1.01	0.505
60	20	0.63	11	0.35	0.98	0.49
61	21	0.66	23	0.74	1.4	0.7
62	8	0.25	21	0.68	0.93	0.465
63	5	0.16	21	0.68	0.84	0.42
64	8	0.25	21	0.68	0.93	0.465
65	7	0.22	20	0.65	0.87	0.435

66	22	0.69	21	0.68	1.37	0.685
67	22	0.69	19	0.61	1.3	0.65
68	21	0.66	17	0.55	1.21	0.605
69	21	0.66	11	0.35	1.01	0.505
70	20	0.63	11	0.35	0.98	0.49
71	21	0.66	23	0.74	1.4	0.7
72	11	0.34	23	0.74	1.08	0.54
73	8	0.25	15	0.48	0.73	0.365
74	6	0.19	21	0.68	0.87	0.435
75	8	0.25	21	0.68	0.93	0.465
76	7	0.22	21	0.68	0.9	0.45
77	7	0.22	11	0.35	0.57	0.285
78	10	0.31	23	0.74	1.05	0.525
79	5	0.16	11	0.35	0.51	0.255
80	5	0.16	11	0.35	0.51	0.255
81	23	0.72	11	0.35	1.07	0.535
82	28	0.88	15	0.48	1.36	0.68
83	2	0.06	23	0.74	0.8	0.4
84	7	0.22	23	0.74	0.96	0.48
85	20	0.63	22	0.71	1.34	0.67
86	28	0.88	11	0.35	1.23	0.615
87	21	0.66	15	0.48	1.14	0.57
88	20	0.63	9	0.29	0.92	0.46

89	23	0.72	12	0.39	1.11	0.555
90	22	0.69	7	0.23	0.92	0.46
91	21	0.66	10	0.32	0.98	0.49
92	4	0.13	18	0.58	0.71	0.355
93	3	0.09	20	0.65	0.74	0.37
94	20	0.63	20	0.65	1.28	0.64
95	28	0.88	20	0.65	1.53	0.765
96	21	0.66	28	0.90	1.56	0.78
97	20	0.63	27	0.87	1.5	0.75
98	23	0.72	23	0.74	1.46	0.73
99	22	0.69	23	0.74	1.43	0.715
100	21	0.66	7	0.23	0.89	0.445
101	32	1.00	23	0.74	1.74	0.87
102	23	0.72	15	0.48	1.2	0.6
103	3	0.09	2	0.06	0.15	0.075
104	10	0.31	10	0.32	0.63	0.315
105	4	0.13	18	0.58	0.71	0.355
106	3	0.09	17	0.55	0.64	0.32
107	22	0.69	21	0.68	1.37	0.685
108	21	0.66	23	0.74	1.4	0.7
109	21	0.66	28	0.90	1.56	0.78
110	20	0.63	27	0.87	1.5	0.75
111	21	0.66	27	0.87	1.53	0.765

112	9	0.28	20	0.65	0.93	0.465
113	20	0.63	0	0.00	0.63	0.315
114	22	0.69	24	0.77	1.46	0.73
115	21	0.66	13	0.42	1.08	0.54
116	21	0.66	19	0.61	1.27	0.635
117	20	0.63	19	0.61	1.24	0.62
118	21	0.66	23	0.74	1.4	0.7
119	28	0.88	29	0.94	1.82	0.91
120	8	0.25	11	0.35	0.6	0.3
121	8	0.25	11	0.35	0.6	0.3
122	23	0.72	11	0.35	1.07	0.535
123	22	0.69	25	0.81	1.5	0.75
124	21	0.66	16	0.52	1.18	0.59
125	21	0.66	26	0.84	1.5	0.75
126	20	0.63	9	0.29	0.92	0.46
127	21	0.66	23	0.74	1.4	0.7
128	26	0.81	4	0.13	0.94	0.47
129	28	0.88	23	0.74	1.62	0.81
130	8	0.25	23	0.74	0.99	0.495
131	13	0.41	7	0.23	0.64	0.32
132	22	0.69	7	0.23	0.92	0.46
133	26	0.81	20	0.65	1.46	0.73
134	9	0.28	7	0.23	0.51	0.255

135	5	0.16	7	0.23	0.39	0.195
136	26	0.81	23	0.74	1.55	0.775
137	8	0.25	19	0.61	0.86	0.43
138	6	0.19	7	0.23	0.42	0.21
139	4	0.13	21	0.68	0.81	0.405
140	8	0.25	24	0.77	1.02	0.51
141	5	0.16	7	0.23	0.39	0.195
142	4	0.13	15	0.48	0.61	0.305
143	8	0.25	2	0.06	0.31	0.155
144	2	0.06	4	0.13	0.19	0.095
145	13	0.41	21	0.68	1.09	0.545
146	3	0.09	10	0.32	0.41	0.205
147	4	0.13	5	0.16	0.29	0.145
148	6	0.19	3	0.10	0.29	0.145
149	28	0.88	16	0.52	1.4	0.7
150	5	0.16	2	0.06	0.22	0.11
151	4	0.13	6	0.19	0.32	0.16
152	5	0.16	24	0.77	0.93	0.465
153	3	0.09	10	0.32	0.41	0.205
154	3	0.09	3	0.10	0.19	0.095
155	30	0.94	24	0.77	1.71	0.855
156	6	0.19	2	0.06	0.25	0.125
157	5	0.16	9	0.29	0.45	0.225

158	28	0.88	11	0.35	1.23	0.615
160	9	0.28	5	0.16	0.44	0.22
161	20	0.63	21	0.68	1.31	0.655
162	1	0.03	3	0.10	0.13	0.065
163	3	0.09	3	0.10	0.19	0.095
164	6	0.19	4	0.13	0.32	0.16
165	8	0.25	15	0.48	0.73	0.365
166	4	0.13	2	0.06	0.19	0.095
167	3	0.09	9	0.29	0.38	0.19
168	25	0.78	7	0.23	1.01	0.505
169	6	0.19	7	0.23	0.42	0.21
170	3	0.09	0	0.00	0.09	0.045
171	20	0.63	23	0.74	1.37	0.685
172	28	0.88	23	0.74	1.62	0.81
173	21	0.66	5	0.16	0.82	0.41
174	20	0.63	9	0.29	0.92	0.46
175	23	0.72	20	0.65	1.37	0.685
176	22	0.69	7	0.23	0.92	0.46
177	21	0.66	7	0.23	0.89	0.445
178	26	0.81	26	0.84	1.65	0.825
179	6	0.19	18	0.58	0.77	0.385
180	11	0.34	7	0.23	0.57	0.285
181	9	0.28	21	0.68	0.96	0.48

182	11	0.34	7	0.23	0.57	0.285
183	4	0.13	3	0.10	0.23	0.115
184	23	0.72	1	0.03	0.75	0.375
185	10	0.31	1	0.03	0.34	0.17
186	9	0.28	26	0.84	1.12	0.56
187	3	0.09	20	0.65	0.74	0.37
188	3	0.09	11	0.35	0.44	0.22
189	6	0.19	20	0.65	0.84	0.42
190	6	0.19	20	0.65	0.84	0.42
191	28	0.88	18	0.58	1.46	0.73
192	5	0.16	2	0.06	0.22	0.11
193	4	0.13	4	0.13	0.26	0.13
194	7	0.22	18	0.58	0.8	0.4
195	3	0.09	9	0.29	0.38	0.19
196	3	0.09	3	0.10	0.19	0.095
197	30	0.94	23	0.74	1.68	0.84
198	22	0.69	28	0.90	1.59	0.795
199	7	0.22	18	0.58	0.8	0.4
200	27	0.84	20	0.65	1.49	0.745
201	6	0.19	11	0.35	0.54	0.27
202	20	0.63	26	0.84	1.47	0.735
203	1	0.03	4	0.13	0.16	0.08
204	3	0.09	4	0.13	0.22	0.11

205	4	0.13	8	0.26	0.39	0.195
206	3	0.09	7	0.23	0.32	0.16
207	11	0.34	10	0.32	0.66	0.33
208	4	0.13	12	0.39	0.52	0.26
209	1	0.03	25	0.81	0.84	0.42
210	5	0.16	25	0.81	0.97	0.485
211	1	0.03	22	0.71	0.74	0.37
212	0	0.00	9	0.29	0.29	0.145
213	8	0.25	15	0.48	0.73	0.365
214	0	0.00	10	0.32	0.32	0.16
215	0	0.00	11	0.35	0.35	0.175
216	7	0.22	5	0.16	0.38	0.19
217	5	0.16	8	0.26	0.42	0.21
218	26	0.81	24	0.77	1.58	0.79
219	6	0.19	21	0.68	0.87	0.435
220	11	0.34	9	0.29	0.63	0.315
221	9	0.28	21	0.68	0.96	0.48
222	8	0.25	10	0.32	0.57	0.285
223	5	0.16	6	0.19	0.35	0.175
224	3	0.09	1	0.03	0.12	0.06
225	30	0.94	23	0.74	1.68	0.84
226	4	0.13	21	0.68	0.81	0.405
227	20	0.63	3	0.10	0.73	0.365

228	22	0.69	24	0.77	1.46	0.73
229	21	0.66	11	0.35	1.01	0.505
230	21	0.66	22	0.71	1.37	0.685
231	20	0.63	10	0.32	0.95	0.475
232	21	0.66	23	0.74	1.4	0.7
233	5	0.16	21	0.68	0.84	0.42
234	28	0.88	20	0.65	1.53	0.765
235	5	0.16	7	0.23	0.39	0.195
236	3	0.09	7	0.23	0.32	0.16
237	22	0.69	21	0.68	1.37	0.685
238	21	0.66	7	0.23	0.89	0.445
239	21	0.66	10	0.32	0.98	0.49
240	20	0.63	15	0.48	1.11	0.555
241	21	0.66	15	0.48	1.14	0.57
242	32	1.00	23	0.74	1.74	0.87
243	28	0.88	23	0.74	1.62	0.81
244	25	0.78	19	0.61	1.39	0.695
245	22	0.69	23	0.74	1.43	0.715
246	21	0.66	23	0.74	1.4	0.7
247	21	0.66	20	0.65	1.31	0.655
248	20	0.63	17	0.55	1.18	0.59
249	21	0.66	18	0.58	1.24	0.62
250	28	0.88	23	0.74	1.62	0.81

251	24	0.75	13	0.42	1.17	0.585
252	30	0.94	23	0.74	1.68	0.84
253	32	1.00	23	0.74	1.74	0.87
254	27	0.84	19	0.61	1.45	0.725
255	28	0.88	23	0.74	1.62	0.81
256	24	0.75	20	0.65	1.4	0.7
257	30	0.94	20	0.65	1.59	0.795
258	27	0.84	23	0.74	1.58	0.79
259	28	0.88	23	0.74	1.62	0.81
260	32	1.00	23	0.74	1.74	0.87
261	28	0.88	19	0.61	1.49	0.745
262	29	0.91	23	0.74	1.65	0.825
263	32	1.00	23	0.74	1.74	0.87
264	32	1.00	23	0.74	1.74	0.87
265	28	0.88	23	0.74	1.62	0.81
266	26	0.81	19	0.61	1.42	0.71
267	32	1.00	6	0.19	1.19	0.595
268	31	0.97	24	0.77	1.74	0.87
269	27	0.84	20	0.65	1.49	0.745
270	29	0.91	17	0.55	1.46	0.73
271	28	0.88	18	0.58	1.46	0.73
272	29	0.91	23	0.74	1.65	0.825
273	20	0.63	10	0.32	0.95	0.475

274	30	0.94	23	0.74	1.68	0.84
275	32	1.00	23	0.74	1.74	0.87
276	27	0.84	19	0.61	1.45	0.725
277	28	0.88	23	0.74	1.62	0.81
278	24	0.75	20	0.65	1.4	0.7
279	30	0.94	20	0.65	1.59	0.795
280	29	0.91	23	0.74	1.65	0.825
281	28	0.88	23	0.74	1.62	0.81
282	32	1.00	23	0.74	1.74	0.87
282	23	0.72	11	0.35	1.07	0.535
283	24	0.75	20	0.65	1.4	0.7
284	27	0.84	31	1.00	1.84	0.92
285	23	0.72	23	0.74	1.46	0.73
286	32	1.00	23	0.74	1.74	0.87
287	13	0.41	21	0.68	1.09	0.545
288	7	0.22	23	0.74	0.96	0.48
289	24	0.75	23	0.74	1.49	0.745
290	4	0.13	23	0.74	0.87	0.435
291	6	0.19	23	0.74	0.93	0.465
292	8	0.25	23	0.74	0.99	0.495
293	5	0.16	21	0.68	0.84	0.42
294	9	0.28	21	0.68	0.96	0.48
295	7	0.22	21	0.68	0.9	0.45

296	32	1.00	21	0.68	1.68	0.84
297	6	0.19	19	0.61	0.8	0.4
298	8	0.25	17	0.55	0.8	0.4
299	5	0.16	11	0.35	0.51	0.255
300	5	0.16	11	0.35	0.51	0.255
Total	5117	159.91	5071	163.58	323.49	161.745

Source: Field survey

FII of Kerala= 161.745/300= 0.54.

List of Publications

International/National Journal Publications

1. Raihanath M. P., & Pavithran K.B. (2014). "Financial Inclusion through MGNREGS- A study of the Roadmap villages of Kannur District". *Business Sciences International Research Journal,* International Multi-disciplinary Research Foundation Publications. *Vol 2, issue 1,* July 2014. ISSN: 2321-3191.
2. Raihanath M. P., & Pavithran K.B. (2014). "Role of Commercial Banks in the Financial Inclusion Programme". *Journal of Business Management and Social Science Research.* Blue Ocean Research Journal. Vol-3 Issue.5, May 2014. ISSN (Online): 2319-5614.
3. Raihanath M. P., & Pavithran K.B. (2013). "Inclusive growth at the Bottom of the Pyramid through Financial Inclusion". *Rajagiri Management Journal,* Rajagiri Centre for Business Studies Publications, Vol.7, Issue 2, December 2013. ISSN: 0972-9968.