

Chapter 1

Introduction

‘Human rights are violated not only through terrorism, repression, or assassination but also by unfair economic structures that create huge inequalities’ says Pope Francis (Stevens, 2014). Financial inclusion is a proactive step to reduce such unfair structures, ensuring equal access to formal financial products and services which are in the nature of ‘public goods’. As per the World Bank, financial access means availability of financial services without any barriers price or non-price. Financial inclusion has become a global concern and parameter in assessing the economic development of the nation. ‘Inclusive growth’ would remain as an unfinished agenda among the sustainable development goals without attaining meaningful financial inclusion of the weaker sections of the society and the low-income households. Financial inclusion should not be considered as charity, obligation, or part of corporate social responsibility but should be perceived as a business opportunity which would benefit the banking customers and the financial providers in the long-run (*way for Subh laabh*).

Empirical evidences present an interconnection between Financial Inclusion Index and other major development indices like Human Capital Index and Human Development Index. A large number of developed economies like Norway, Finland and Denmark with high ranks in human development indices have achieved cent percentage financial inclusion and are striving for greater financial deepening by offering personalised financial services to the people. The formal financial institutions in developing nations, struggle to branch out to the remotest parts of the country, aiming to connect the entire population under the formal banking network and to provide basic banking products and services at an affordable cost. Financial inclusion, being a poverty alleviation tool demands a comprehensive vision, well-framed plans and devoted efforts for the systematic implementation of the plans to include

the less privileged low-income and weaker sections of the society to share the benefits of the services of formal financial institutions.

‘Inclusion’ or ‘insertion’ of poor under the formal banking system in India commenced from 1904, with the enactment of Cooperative Societies Act. But the inclusion process was at a very low pace. Even after a century, as per the Census 2011, percentage of households availing formal banking service scored at 58.7 as against 35.5 per cent in the Census 2001. To be more specific, rural households’ use of financial service has grown to 54.4 per cent (Census 2011) from 30.1 per cent (Census 2001) and in the case of urban households it has raised to 67.8 per cent from 49.7 per cent. National exhortation for financial inclusion came in India in 2005-06, which brought a new paradigm in the mind of financial service providers and policy makers. Since 2006, financial architecture has rolled out well-designed schemes to enhance the spread of formal banking landscape with the sole objective of improved access to savings and credit to all, in particular to the low-income and weaker sections in the rural areas. Bankers came up with roadmaps to achieve the target in a phased manner. Initiatives like Core-Banking System, No-frill accounts, Basic Savings Bank Deposit Accounts (BSBDA), Pradhan Mantri Jan-Dhan Yojana (PMJDY) accounts and Direct Benefit Transfer (DBT) scheme, routing of welfare schemes have helped to boost the number of ownership of bank accounts, which is considered as the primary step to be connected to formal financial institutions. Moreover, financial system itself was revamped for greater penetration of formal banking services like merger and migration of Regional Rural banks, introduction of Bharatiya Mahila Bank, Small Banks, Payment Banks, banks for Start-ups and these emerging models of financial institutions with grass-root network and rural people’s trust raise challenges to scheduled commercial banks.

The current formal financial ecosystem consists of multiple levels of financially included population from financially excluded to High-Net-Worth Groups (HNWG), whose heart desires are being transformed into financial products and services. Hurdles that hinder the process of financial inclusion

among the weaker sections of the society could be lack of financial literacy among the people, absence of suitable financial services and products, and target based functioning of the commercial banks. One of the weaker sections of the society in Kerala is marine fisher households and they are characterised by low and irregular income, less asset possession, indebtedness to money lenders and high-risk assumption. The major share of financial requirements of marine fisher households are met by private money lenders, especially in procuring fishing inputs and households' requirements are sourced from friends and relatives, cooperative societies, microfinance institutions and specialised agencies. Dimensions of meaningful financial inclusion are availability, eligibility, and affordability; and assurance of these three dimensions are the challenges faced by the financial service providers. Scheduled commercial banks alone can offer complete suite of financial services and products to the fisher households, especially the credit products. Shri. Deepak Mohanty, Chairman of the Committee on 'Medium Path on Financial Inclusion', opined that accessibility/availability of affordable credit is the litmus test of meaningful financial inclusion (RBI, 2015). So the extent and the type of financial inclusion among the marine fisher households has been a matter of concern because when commercial banks shut the door to provide the needed 'financial services & products' to the people, fisher households are compelled to take shelter under the private money lenders who keep them indebted for life.

1.1 Significance of the Study

Commercial banks acted in response to the exhortation of RBI for greater penetration of financial services among the unbanked in India, the first goal post to have one account for every citizen families. On December 24th 2007, Kerala was declared as the first State in the country after Union Territory of Pondicherry, to achieve 'total financial inclusion' of the citizen families, with at least one member from each family having a bank account (Banks achieve 'total financial inclusion', 2007). The recently published CRISIL-Inclusix-2015, financial inclusion measure used in India, showed that Kerala

has the highest financial inclusion index score and ranked number one among the 29 States in India since 2009 (World Bank, 2015) and the recent report showed that 13 out of 14 districts in Kerala (except Malappuram) were included in the 'top 50 districts' list and six districts including Alappuzha have 100 per cent financial inclusion. But, it is paradoxical that Kerala with high financial inclusion index score and district of Alappuzha with 100 per cent financial inclusion has unbanked and under banked households among low-income groups and vulnerable sections of the society like fisher households, SC/ST households, and agri-based groups.

Marine fisher households in Kerala still remains to be one of the most vulnerable sections of Kerala, continue to rely on the subsidies and welfare schemes offered by the Government when they are not able to go for fishing during monsoon seasons and off-seasons. They are unable to absorb any financial shocks in the form of accidents, sickness life-cycle events due to their low and seasonal income and multiple loans from money lenders. As glanced through the yesteryears (2008-2009), the credit flow towards fisheries sector from the formal financial structure was through the cooperative banks (79.8 per cent), followed by commercial banks (20.02 per cent). Even in 1996, Task Force on 'Livelihood Secure Fishing Communities', constituted by State Planning Board of Kerala, recommended to enhance the availability of institutional credit to the fisheries sector and to ensure the right of first sale to the fishermen who risk their lives (Govt. of Kerala, 1997). In the case of fishermen, fishing inputs with huge investments are not accepted as security for loans and the land owned by them may not generally qualify the security criteria of the banks as they are bracketed as Coastal Regulation Zone having meagre sales value. The alternative source of finance left with the fisheries households are money lenders and commission agents who pocket 15-20 per cent of the value of the daily catch after the distressed sale and these loans 'without interest' would be repaid only with the sale of fishing inputs and even scrap has been shared with the money lenders.

RBI's occasional paper titled 'Regulation of Informal Financial Institutions—A Study of Money Lenders in Kerala', reported that there were 5696 money lenders as on March 2004 and Alappuzha had highest number of money lenders in the State. As per the study, money lenders of the State grabbed 68.4 per cent of the financial sector in 2001. Though, district of Alappuzha, attained the 'total financial inclusion' in September 2006, later review conducted by NABARD in the district of Alappuzha, the smallest district in area, then having highest fisher population of Kerala, found that people were unaware of the financial services and products offered by scheduled commercial banks. Out of the six model fisheries villages in Kerala, two of them are in Alappuzha. The Debt Relief Commission Report 2010 shows that highest number of fisher households who claimed for debt relief was from Alappuzha (Govt of Kerala, 2010) and the only Model Financial Literacy Block of Kerala adopted by RBI is also in Alappuzha.

Financial inclusion may differ in its meaning and dimensions but the free and equal access to institutional credit and safe saving opportunities have been acknowledged as the core of financial inclusion thrust. The type and nature of financial products and services offered by financial intermediaries differ by occupation and the economic status of the clients, and the level of financial literacy of the customers to demand and the ability to choose right products and services. The financial services and products required by the fisheries sector are peculiar and unique, as the sector characterised by huge capital investment and high-risk profile. So there is a pressing need to make an exhaustive study about their financial requirements, the financial services offered by organised financial institutions for pre-harvest, harvest and post-harvest period, the extent to which fisheries households depend on money lenders, rate of interest charged for loans by alternative financial system and banking habits of the fisher households etc. Hence, the study findings could be made use of by the policy makers including scheduled commercial banks to redesign products and services which are more suitable, affordable and in

adequate quantity, distributed through a financial inclusion model which is more responsive to fisher households needs.

One of the major roadblocks observed among the fisher households to be financially included was lack of financial literacy. Financial literacy programmes organised, as an exuberant celebration to capture the attention of the media may not do any good to the target groups. A need-based financial literacy programme is the need of the hour, enabling the target groups to demand formal financial products and services, to take informed financial decisions knowing the risk and rewards of each product, to manage the finance and to better their future. The focus of the study is the extent of financial inclusion and the financial literacy of the marine fisher households who are backward in socio-economic status compared to the general population of Kerala. The finding of the study in this direction would be a representation of the fisher households of Kerala to the policymakers who desire an accelerated economic growth of the State as the bird cannot fly on one wing alone.

1 .2 Research Problem

Inclusive growth' is the buzzword that resounds in the universe coaxing the countries to share the benefits of common resources with every one especially the weaker sections, less privileged and low-income groups of the society. Responding to the global invitation, India too emphasised inclusive growth as the prime objective in its Eleventh Five Year Plan. Since 2005-2006, drastic initiatives have been rolled out to rope in all habitations under the formal banking sector. The Direct Transfer Benefit Scheme launched in January 2013, was a mighty step to include the unbanked into the formal banking network and further the assignment of 'Service Area' for banks ensured the onus of catering the rural poor by a formal bank branch. As part of the Direct Benefit Scheme, entire fisher households in the State were connected to formal banking service providers. The ownership of bank accounts is only the primary step in the process of financial inclusion. Meaningful financial inclusion refers to sufficient awareness of the financial products and services

which are in the nature of 'public goods' and the ability to demand the required financial services and the desired products without any trace of discrimination.

The fisher households in Kerala require specially engineered financial products and services as their income pattern is peculiar compared to general customers. 'One size does not fit for all', there is an urgent need to think of an innovative banking model to include this vulnerable group with poor socio-economic status under fold of formal banking system. Fisheries sector is perceived as a risky sector by the financial institutions and insurance companies. Non-availability of the institutional credit makes the fisher households indebted to informal lenders. The role of formal banking sector is very crucial in eliminating middlemen who grab the major share of their hard labour. Therefore, negligence of the formal financial institutions further curbs the socio-economic growth of the fisheries community. It was also observed that microfinance institutions, private financiers and private money lenders have spotted the coastal area as their harvest area where they charge exorbitant interest ranging from 22 to 120 per cent without being questioned by financially illiterate poor people and the policy makers silently promote the mushrooming of informal agencies. This study is an attempt to assess the extent of financial inclusion among the marine fisher households through scheduled commercial banks after a decade of policy implementation and to explore the extent to which fisher households are aware of the products and services offered by formal banking institutions. The present study tries to address these questions with the analysis of the primary data:

1. How much is the financial requirements of the fisher households and the proportion of finance availed from scheduled commercial banks?
2. What is the extent of financial inclusion in terms of deposit penetration, credit penetration and financial service penetration among the fisher households?

3. What are the constraints faced by the fisher households and the scheduled commercial banks in attaining meaningful financial inclusion?
4. What is the extent of financial literacy prevailing among the fisher households?

1.3 Scope of the Study

Financial inclusion has been acknowledged and accepted as the poverty alleviation tool by the policy makers around the globe. District of Alappuzha, with its slow economic growth and negative growth rate in the number of establishments accommodate highest number of fisher households in Kerala, claims to have well connected formal banking institutions to provide banking facilities to all. Formal banking service providers of the district declared that unbanked villages are banked either through Business Correspondents (BCs) or brick and mortar outlets as on 31st March 2013. The present study intended to evaluate the extent of financial inclusion and the related literacy of marine fisher households through scheduled commercial banks. Marine fisher households include households of the sea-going fishermen using any of the three categories of fishing crafts registered in Alappuzha. 'Financial inclusion' among the fisher folk comprises of deposit penetration, credit penetration, bank penetration and other financial service penetration among the marine fisher households through scheduled commercial banks. The study also assesses the financial soundness, financial requirements, and the financial literacy of the fisher households in Alappuzha. Financial inclusion and financial literacy would be the short cuts to the socio-economic development of the fisher households who are prey to all sorts of exploitation by middlemen and private money lenders.

1.4 Objectives of the Study

The main objective of the study is to assess the extent of financial inclusion and their related literacy among the marine fisher households in

Alappuzha. In order to attain the core objective, nine specific objectives set are enlisted below:

1. To examine the factors which influence the financial status of fisher households.
2. To determine the extent of banking practices existing among the fisher households.
3. To assess the financial inclusiveness of fisher households through scheduled commercial banks.
4. To identify the source of finance resorted by fishermen in setting up a fishing units and the proportion of commercial banks in the venture.
5. To determine the constraints faced by the scheduled commercial banks in rendering the financial services to the fisher households.
6. To assess the extent of financial literacy of fisher households from the view point of commercial banks.
7. To ascertain the extent of financial literacy prevailing among the fisher households.
8. To understand the level of financial management practices among the fisher households.
9. To formulate an ideal model of financial inclusion for the fisher households in Alappuzha.

1.5 Hypotheses

With a view to streamline the collection and analysis of the data based on the empirical evidences, the following hypotheses have been formulated for the study. Each variable has been analysed under two bases like '*Types of Craft*' and '*Year of Opening Bank Account*' by fisher households.

1. H_0 : There is no significant difference in the annual mean income of fisher households by Types of Craft with various economic factors.

2. H_0 : There is no significant difference among the fisher households in the purpose of visits to the bank by Types of Craft.
3. H_0 : There is no significant difference among the fisher households in the usage of financial services availed from scheduled commercial banks by Types of Craft.
4. H_0 : There is no significant difference in the proportion of finance availed by the owner cum fishermen by Types of Craft from the scheduled commercial banks for setting up a fishing unit.
5. H_0 : There is no significant difference in the constraints faced by the public sector banks and private sector banks in serving the fisher households.
6. H_0 : There is no significant difference in the perception of the Public sector banks and Private sector banks on the financial literacy of fisher households.
7. H_0 : There is no significant difference in the financial literacy of the fisher households by Types of Craft.
8. H_0 : There is no significant difference in the financial management practices of the fisher households by Types of Craft.

1.6 Methodology and Database

The study on the financial inclusion among the marine fisher households was organised in two different phases. At the outset an analysis was conducted based on the secondary data obtained from the various promotional institutions set up exclusively for fisher folk like Department of Fisheries, Matsyafed, Fisheries Welfare Fund Board at State level and Regional level. The analysis was focused to gain knowledge about the steps employed so far by these

institutions in view of the financial inclusion among fisher households and the extent of banking transactions undertaken by fisher households in connection with the implementation of different promotional schemes offered by these institutions. In order to assess the financial inclusion initiatives rolled out and the target attained at national level, data disseminated by the RBI through RBI Bulletin, Basic Statistical Returns, RBI occasional papers, and digital database of RBI were made use of. The reports of financial inclusion and the banking statistics published by SLBC and the Economic Review published by State Planning Board were also analysed thoroughly with the objective of knowing the strengths and weakness of financial inclusion drive implemented in Kerala in general. District Credit Plans published by the Lead Bank of the district and the Potential Linked Plans for Alappuzha, published by the NABARD Regional Office, Alappuzha were scanned to garner facts about the present financial landscape and the financial inclusion status of the district. Besides the above mentioned sources, books, reports, journals and magazines, other national and international publications, national dailies and websites were used to comprehend earlier contributions, current information in this regard and the innovative steps taken in this respects across the globe.

In the second phase, extensive focus group discussions were conducted with fishermen who were owners of crafts as well as exclusive crew fishermen to know about their financial requirements, banking habits and the awareness of the financial products and services. Researcher conducted depth interviews with managers of scheduled commercial banks to fathom their perspective about the fisher households with respect to financial dealings and the difficulties involved in catering them. Loan managers in service and those retired from service were also approached to know more about the credit policy of banks in lending to the fisher folk. Besides that those officials of the fisheries promotional agencies, presidents of NGOs, office bearers of SHGs and Financial Literacy Centre officials were contacted to ascertain the specific services offered to the fisher households. Subsequently, the researcher prepared pre-tested and modified two sets of interview schedules to collect the relevant

data from demand and supply sides. The first set of interview schedule was administered with the focus to collect data on the financial requirements, access to financial services such as savings, credits, payment facilities and related literacy of fisher households. The second set of interview schedule was used to obtain information from the bank managers, who represent the financial service providers and the key subject areas in the interview schedule were about financial inclusion initiatives of the bank branch, the perceptions towards the fisher folk having low-income regarding the financial literacy and the problems faced by the bank in rendering financial services to the fisher folk and proposed suggestions to rectify the barriers.

1.6.1 Population of the Study Area

The prime objective of financial inclusion is to enhance access to savings, affordable and adequate credit and to other customer oriented financial services to the involuntarily excluded population with low-income, irregular income. Coastal fisher households are considered to be high-risk profile section of the society with seasonal and low-income. District of Alappuzha has a significant place in the marine landscape of Kerala, being a highest fisher folk populated district in the State as on 30th September, 2012, spread out to fourteen Grama Panchayaths which fall under six Coastal Blocks, and one Municipality. The total fisher folk population in Alappuzha was 167794, which consists of 1,07,204 in Marine sector and 60590 Inland sector. The 30 marine fisheries villages of Alappuzha accommodate 18,680 households and 24 inland fisheries villages accommodate 12,197 fisher households. The study was conducted among the marine fisher households in Alappuzha, endowed with lengthiest seacoast (82 kilometres) extending from Valiazheckal to Pallithode North.

Fisher households' with ownership of fishing craft have definite bearing on their financial requirements, sources of finance depended compared to exclusive crew fisher households. Moreover, the capital investment and the scale of operation diverge by types of fishing crafts like Mechanised,

Motorised and Non-Motorised. The population of the present study consists of owner cum crew fisher households and exclusive crew fisher households in the marine sector. This study intended to identify the extent of financial inclusion penetration and to assess the degree of financial literacy among the marine fisher households in Alappuzha. A detailed discussion with the fisheries officers and Matsyafed officers, it was found that every registered fisherman has a Basic Saving Deposit Account (BSDA) to receive the grant from the Government under Saving Cum Relief Scheme, which were recently opened as an initiative to include them under the fold of formal financial sector. Population of the supply side of financial inclusion consisted of scheduled commercial banks, as per the Banking Statistics as on 31 March, 2013 published by the Lead Bank Department, Thiruvananthapuram. The formal financial network of Alappuzha comprised of 319 branches of 29 Scheduled Commercial Banks, six Primary Co-operative Agricultural & Rural Development Banks, District Co-operative Banks with 54 branches, 162 Primary Agricultural Credit Societies/ Banks, 10 Kerala Gramin Banks, one KFC and one branch of Kerala State Cooperative Banks (SBT, 2015). Commercial banks have been the dominant segment of the financial sector in Alappuzha, mainly located in the urban and semi-urban areas. Constraints experienced by the financial service providers and their perception on financial literacy of fisher households were assessed by collecting data from the bank managers of Public sector banks and the Private sector banks.

1.6.2 Sampling Design

Stratified systematic random sampling design was used for selecting the fisher households for the study. The population consists of the marine fisher households in the District of Alappuzha. Firstly, Alappuzha has been stratified into six coastal blocks and one municipality, namely Muthukulam, Haripad, Ambalappuzha, Aryard, Kanjikuzhy, Pattanakad, and Alappuzha (Municipality). Secondly, three coastal blocks namely Muthukulam, Ambalappuzha, and Kanjikuzhy with highest number of fishing crafts as per the List of Registered Vessels collected from Deputy Directorate of Fisheries,

Alappuzha as on March 31, 2013, which formed the base for constructing the sample frame. Thereafter, each stratum was sub-stratified into marine fisheries villages. Out of the 16 marine fisheries villages, three marine villages having highest number fishing crafts under three blocks were identified i.e., Arattuppuzha from Muthukulam Block, Ambalappuzha from Ambalappuzha Block and Arthunkal from Kanjikuzhy Block with highest number of fishing crafts were chosen. Thereafter, fisheries village-wise segregated list of Mechanised and Motorised craft owners were prepared with their residential address. Majority of the Non-Motorised crafts were not registered with the Department of fisheries, hence the list prepared with the help of the Fisheries Offices of the respective region and cross checked with the fishermen of the locality.

Simple stratified random sampling was followed in determining the bank branches for the study of financial inclusion from the part of the financial service providers. Firstly, based on the information given by the Deputy Directorate of Alappuzha, those commercial banks holding more than hundred bank accounts of fishermen as per the DBT scheme were grouped under six coastal blocks and a municipality. Subsequently, bank branches were categorised under Public Sector and Private Sector with highest number of fishermen's accounts and it was found that Nationalised Banks had highest number of fishermen's BSDAs, followed by SBI & its Associates and Private Sector Banks. The distribution of ownership of accounts by fisher households in public sector banks and private banks was in the ratio of 4:1.

1.6.3 Sample Frame

1.6.3.1 Sample Frame for the Fisher Households

The capital investment and the scale of operation diverge by types of crafts-Mechanised, Motorised and Non-Motorised fishing crafts. The population consists of owner cum crew fisher households and exclusive crew fisher households. As a first step, the population of fishing vessels owners under Motorised-Mechanised, Motorised-Non-Mechanised and Non-Motorised

sectors were considered for the study. As per the official list of Registered Vessels Owners under three different categories in Alappuzha obtained from the Deputy Directorate of Fisheries, Alappuzha, contained names of 145 Motorised-Mechanised vessel Owners and 4,673 Motorised Non-Mechanised vessel Owners. It is important to note that a few names of Non-Motorised vessels owners were also provided by the Deputy Directorate of Alappuzha, but the data regarding Non-Motorised vessel owners were not complete due to the fact that Non-Motorised vessels found in Alappuzha, were mostly made out of Thermocole, otherwise known as '*ponth*' or '*pongu*' which were not permitted to register under the Department of Fisheries due to security reasons. Discussions held with the Fisheries Officers of the district revealed that the average number of such Non-Motorised Fishermen owners per village would be 135-150. So, the researcher decided to take the number of Non-Motorised Owners as 4500. The total number of fishing crafts in Alappuzha under Mechanised sector, Motorised sector and Non-Motorised sector were found to be 9318.

1.6.3.2 Sample Frame for the Bankers

Saving Cum Relief Scheme (SCRS) implemented by Department of Fisheries, Kerala has been routed to fishermen through bank branches under the Direct Benefit Transfer (DBT) scheme. Fishermen in a village would receive this fund through 6 to 9 different bank branches of that locality. Almost all the bank branches in the coastal blocks have participated in transferring this grant to fishermen and women. As a primary phase, the names of these bank branches in the coastal blocks were collected from the Deputy Directorate of Fisheries, Alappuzha. Out of the 315 scheduled commercial bank branches in Alappuzha, around 139 branches participated in transferring this SCRS of marine fishermen. Names of bank branches were classified as public sector banks (111) and private sector banks (28) under six coastal blocks and one municipality. Both public and private sector banks with highest number of accounts of fishermen under each coastal blocks and municipality form part of

the sample frame. In order to ensure the reliability of the response, bank branches from public sector and private sector were selected in the ratio of 3:2.

1.6.4 Pilot Study

Pilot study was conducted to ensure the validity and reliability of the interview schedule prepared to obtain the data from the respondents from demand and supply sides of financial inclusion. Pilot study was done by taking 10 fisher households from Mechanised, Motorised and Non-Motorised sectors. And response rate was determined using the Kukeran Formula and it was found to be 0.85.

$$n = \frac{\left(\frac{P(1-P)}{\frac{A^2}{Z^2} + \frac{P(1-P)}{N}} \right)}{R}$$

Where:

- n = Sample size required
- N = Number of people in the population
- P = Estimated variance in population, as a decimal:
(0.5 for 50-50, 0.3 for 70-30)
- A = Precision desired, expressed as a decimal
(i.e., 0.03, 0.05, 0.1 for 3%, 5%, 10%)
- Z = Based on confidence level : 1.96 for 95% confidence, 1.6449 for 90% and 2.5758 for 99%
- R = Estimated Response rate as a decimal.

1.6.5 Sample Size Determination

The variance in population estimated from the pilot study is found to be 0.85. As per Kukeran formula applied in 'RaoSoft,' the required sample size was estimated as 192 for a population of 9318. The breakup of the sample size was 44 fisher households from Mechanised sector, 74 each from Motorised and Non-Motorised. Five per cent extra samples were collected from each of these sectors; hence the sample units from Mechanised, Motorised and Non-

Motorised were 46, 78 and 78 respectively. Two of the Mechanised fisher households' interview schedules were incomplete due to the reluctance of the respondents' to reveal certain information. Finally, the sample in aggregate became 200 fisher households representing 44 from Mechanised sector and 78 each from Motorised and Non-Motorised sectors.

The population of the study consists of 145 Mechanised crafts owner cum crew fisher households, 4673 Motorised crafts owner cum crew fisher households and 4500 Non-Motorised crafts owner cum crew fisher households in Alappuzha and the entire exclusive crew fishermen working in Mechanised, Motorised and Non-Motorised sectors. The percentage distribution of three sectors stood as follows-Mechanised sector was 1.56 per cent of the total, 50.15 per cent, highest per cent fishing vessels in Motorised sector and 48.29 per cent from Non-Motorised sector. As the number of Mechanised crafts were too small compared to other two sectors, the researcher calculated the logarithm of numbers to ensure the representation of three sectors for the effective and efficient comparison. The resultant proportion of the three sectors was 2.16 per cent from Mechanised sector, 3.67 per cent from Motorised sector and 3.65 per cent from Non-Motorised sector. An equal number of Exclusive crew fisher households were also selected from Mechanised and Motorised sectors also. Result of the procedure followed are presented in the table 1.1

Table 1.1
Determined Sample Size of the Study

Types of Crafts	Population	%	Log of Population	Required			Collected with 5 % extra	Used for the Study	
				Total	Owner cum Crew	Exclusive Crew		Owner cum Crew	Exclusive Crew
Mechanised	145	1.56	2.16	44	22	22	46	22	22
Motorised	4673	50.15	3.67	74	37	37	78	39	39
Non-Motorised	4500	48.29	3.65	74	37	37	78	39	39
Total	9318	100.00		192	96	96	202	100	100

After the determination of the sample size as 200 fisher households, the systematic random sampling method was used for the collection of data. The three fisheries villages selected were namely Arattuppuzha, Ambalappuzha, and Arthunkal. The details of the sample distribution among three fisheries villages has been presented in table 1.2 given below.

Table 1.2
Village -Wise Breakup of the Sample Fisher Households

Fisheries Villages	Mechanised Sector		Motorised Sector		Non-Motorised	
	Owner Cum Crew	Exclusive Crews	Owner Cum Crew	Exclusive Crews	Owners Cum Crew	Total
Arattuppuzha (2.2)	6	6	10	10	20	52
Ambalappuzha (3.9)	8	8	15	15	29	75
Arthunkal (3.9)	8	8	14	14	29	73
Total	44		78		78	200

From the supply side dimension of financial inclusion, bank branches under public sector and private sector with highest number of fishermen accounts were identified and finally, five bank branches from each coastal blocks and one municipality were selected in the ratio of 3:2. Hence, three bank branches from public sector banks and two bank branches from private sector

banks were selected for the study. Thus, the sample frame for the financial service providers was confirmed to be 35 banks to satisfy the minimum size required for statistical significance, which constitutes 11 per cent of the total scheduled commercial banking network in Alappuzha.

Table 1.3
Block -Wise Breakup of the Sample Bank Branches

Sl. No	Coastal Blocks	Public Sector Banks	Private Sector Banks	Total
1.	Muthukulam	3	2	5
2.	Haripad	3	2	5
3.	Ambalappuzha	3	2	5
4.	Aryard	3	2	5
5.	Kanjikuzhy	3	2	5
6.	Pattanakad	3	2	5
7.	Alappuzha (Municipality)	3	2	5
	Total	21	14	35

1.6. 6 Data Collection Instrument

A comprehensive study of financial inclusiveness among fisher households would mean understanding the perspectives, requirements and constraints of fisher households as well as financial service providers. Structured interview schedules have been employed for gathering data from fisher households and bank managers. The structured interview schedules contained various types of questions like simple dichotomous, determinant-choice, checklist questions, ranking and scaling. Likert scale was used to rate the attitude of fisher households regarding financial practices and bank managers' perception on the financial literacy of fisher households. The interview schedules were prepared and pre-tested with utmost care and diligence.

1.7 Reliability Analysis

Reliability test was undertaken on the responses collected from the sample on the multiple-item scale questions to assess the internal consistency of the measures used in measuring various concepts used for the study.

Coefficient alpha (α) represents the internal consistency by computing the average of all possible alpha reliabilities for a multiple-item scale. Coefficient alpha ranges in value from 0 to 1, and the scales with Coefficient alpha (α) between 0.70 and .080 are considered to have very good reliability and value between 0.60 and 0.70 indicating fair reliability. The table 1.4 given below presents the reliability test results of the study.

Table 1.4
Reliability Test Values of Variables Analysed

Sl. No	Variables Considered	Number of Items	Cronbach's Alpha Value
I	Fisher Households		
1.	Financial Requirements & Sources	14	0.860
2.	Saving Habit of Fisher Households	8	0.969
3.	Reasons of Loan Default	6	0.987
4.	Loan Refusal & its Reasons	11	0.934
5.	Eligibility for Loan from Commercial Banks	6	0.959
6.	Awareness & Use of Financial Products	1	0.733
7.	Financial Literacy	34	0.689
8.	Features of Preferred Financial Institutions	12	0.78
II	Scheduled Commercial Banks		
9.	Perception on the Financial Literacy of Fisher Households	13	0.747
10.	Constraints Faced in Catering Fisher Households	12	0.832

1.8 Content Analysis

Content analysis is a research technique for making replicable and valid inference from the data to their context (Neuendorf, 2002). Content of the study was finalised after the focus group discussions with the target group and depth interviews of the banking personal, review of literature and personal observation. The present study has its foundation on the financial soundness of the fisher households taking into account 15 socio-economic variables. Further, an examination of the financial requirements, both long term capital and working capital and the sources opted by the owner cum marine fisher households were carried out in the context of financial inclusion by considering another 15 variables. For the purpose of assessing the degree of financial inclusion among coastal fisher households in Alappuzha, 21 savings related variables and 39 credit related variables have been taken. In order to have a picture of the alternate sources of credit sought after by the fisher households for meeting the life-cycle expenses, 44 variables concerning sources of finance, rate of interest charged and turn over time and the difficulties faced in availing these services were considered for the study.

1.9 Validity Analysis

It ensures the accurate measuring of a concept. It deals with how a chosen measure assesses the concept. Validity analysis is classified into four sub-validity analysis.

1.9.1 Face Validity

The interview schedule was shown to experts-academicians, Statisticians, personnel working in the field of financial inclusion under Reserve Bank of India and officials working for the promotion of the fisher folk and the trade union leaders who have the authority to speak about the financial aspects of fisher households to guarantee the items in each measure matches the concepts. Based on the feedback necessary modifications were made in the schedule.

1.9.2 Content Validity

It deals with the assessment of the chosen measure whether it covers all aspects of area under study in terms of breadth and depth. Study conducted in view of assessing the financial inclusion of fisher households, a comprehensive conceptual frame work has been developed to make sure the coverage of the domain of interest. Financial inclusion is studied from both demand and supply dimensions. The first part of the study aimed at determining the peculiar financial requirements of the target group and the level of their banking habits. The second part access the extent of financial inclusion among fisher households and the hurdles faced in free access to financial intermediaries. At the third part, the researcher proposes certain remedial measures to be taken by the policy makers to enhance the demand for financial services and products. And finally, supply side perspective toward the interested group and the challenges met to cater them.

1.9.3 Criterion Validity

Unlike the face validity, criterion validity provides empirical evidence of the accuracy of the measure or it assess the practical perspective of the measure chosen for the study. Criterion validity can be classified into concurrent validity and predictive validity. Concurrent validity is done with the objective to assess the extent of financial inclusion penetrated into the fisher households after a decade of financial inclusion drive.

1.9.3.1 Construct Validity

This validates how unique the measure is. Construct validity consists of several components including face validity, content validity, criterion validity, convergent validity and discriminant validity.

1.9.3.2 Convergent Validity

Convergent validity checks the inter-relation between concepts. Concepts should be related with high positive correlation. In the present study,

significant correlation is found with various scales. Factor analysis could be used to establish construct validity.

1.9.3.4 Discriminant Validity

It represents how unique or distinct is a measure. When two scales are too highly correlated above 0.75 discriminant validity is questioned (Zikmund, Babin, Carr, Adhikari, & Griffin, 2013). Hence, it can be said that concepts should be significantly correlated but should be independent.

1.10 Tools for Analysis

The data collected through the two interview schedules were tabulated, analysed, and interpreted by using SPSS and Microsoft Excel employing following appropriate mathematical and statistical tools. The major statistical tools applied for the analysis are Averages, Percentages and Standard deviation. Hypothesis testing was conducted using Independent T-test, Chi-Square Test, Z-test, Spearman Rank Correlation, Multiple Classification Analysis(MCA), One-Way ANOVA, Two-Way ANOVA, MANOVA, Factor Analysis, Logistic Regression and Conjoint Analysis.

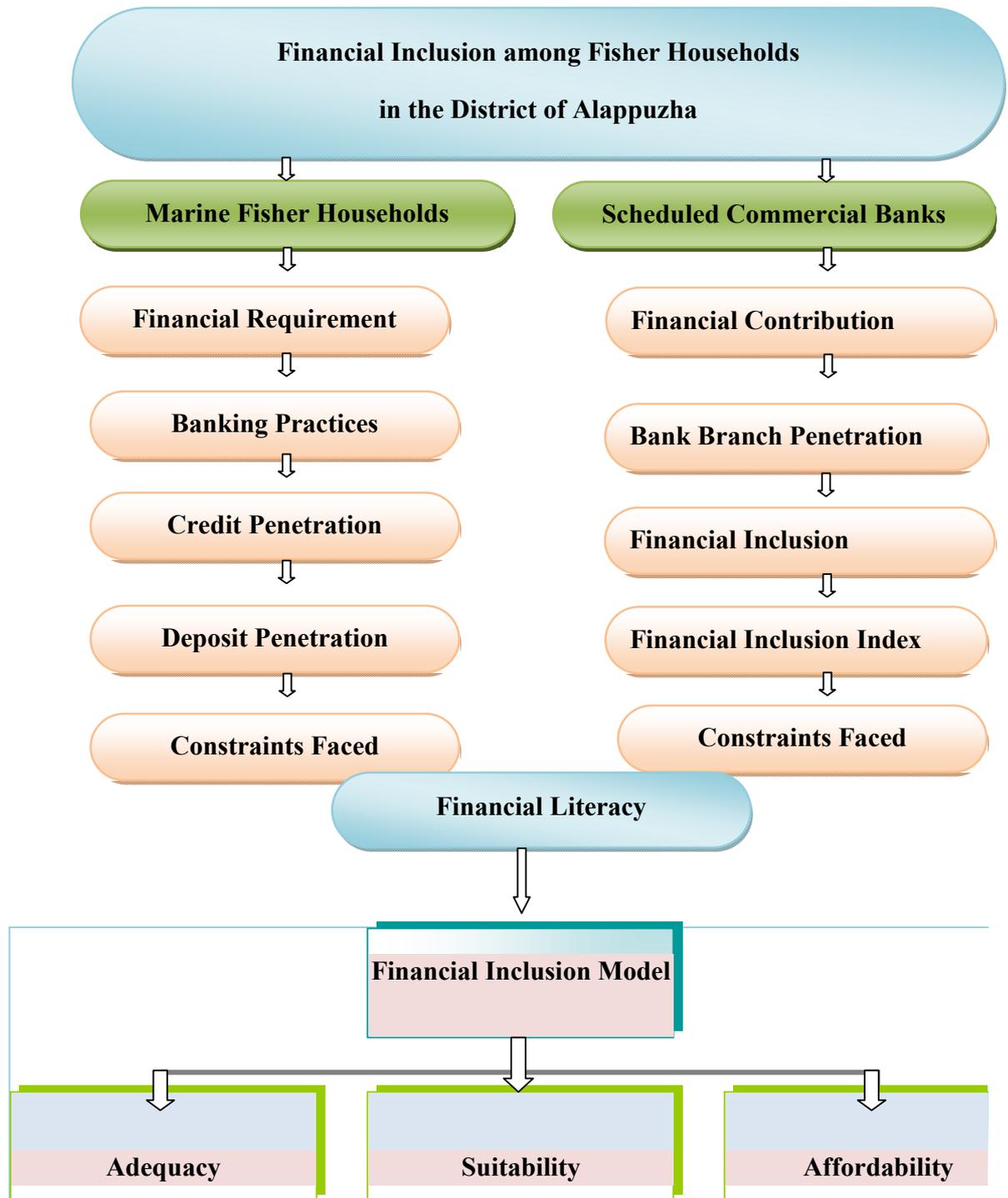
1.11 Variables Used

Table 1.5
Variable Used for the Analysis

Dependent Variables	Independent Variables
Financial Soundness	Age of Head of the Household (HH)
	Number of Years as Fisherman
	Year of Opening Bank Account by HH
	Types of Bank in which HH has Bank Account
	Educational Level of HH
	Number of Family Members
	Families with Alternative Sources of Income
	Size of the Landholding
	Types of Sources of Finance
Financial Requirements	Long Term Capital Investment
	Daily Operating Expenses
	Annual Development Expenses
Sources of Finance Depended	Amount of Finance
	Rate of Interest
	Turnaround Time
Banking Practice Indicators	Purpose of Opening Bank Account
	Purpose of Visiting the Bank
	Frequency of Visiting the Bank
	Distance to the Bank
	Financial Service Aailed
Credit Penetration	No. of Credit Accounts
Deposit Penetration	No. of Deposit Accounts (BSBDA, FD a/c & SB a/c)
Branch Penetration	No. of Branches of Scheduled Commercial Banks & ATMS

Dependent Variables	Independent Variables
Extent of Savings	Motivational Factors for Savings
	Sources of Savings
	Reasons for Lack of Savings
	Frequency of Making Savings
Extent of Credit Availed	Purpose of Loans
	Schemes-Based Loans
	Loans Availed from Other Alternate Sources
	Reason for Refusal of Loans
	Reasons for not Requesting Loans
	Reasons for the Default of Repayment of Loan
Extent of Financial Services Availed	Use of Financial Services and Products
Financial Literacy	Awareness of Financial Services
	Sources of Information for Financial Decisions
	Knowledge of Prevailing Rate of Interest on Loans, Deposits, Banking Procedures, Confidence Level to Deal with the Bank Personnel
	Knowledge of the System of Service Area Allotment
	Knowledge of the Simple And Compound Interest Rates of Loan
Financial Management practices	Earning, Spending, Saving, Investing and Borrowing
Features of Ideal Financial Services	Adequacy, Affordability and Suitability
Perception of the Banking Personnel on Financial Literacy	Financial Attitude, Financial Behaviour, Financial Planning and Financial Budgeting
Constraints Faced By Banks	Lack of Financial Literacy, Multiple Loans, Irresponsible Banking Habit

1.12 Conceptual Frame Work



1.13 Operational Definitions of Terms Used

1. Types of Fishing Craft

A boat or inboard, whether or not fitted with mechanical means of propulsion, which is engaged in sea-fishing categorised as Mechanised crafts, Motorised crafts and Non-Motorised crafts.

2. Mechanised Craft

A boat or inboard craft which is registered in Alappuzha under Department of Fisheries, Government of Kerala. They are registered under the category of Motorised-Mechanised crafts, permitted to conduct fishing activities in Kerala and all of India.

3. Motorised Craft

Country crafts which are registered in Alappuzha under the Department of Fisheries, Government of Kerala. They are registered under the category of Motorised Non-Mechanised crafts with mechanical propulsion, which are permitted to conduct fishing operations in all base of Kerala as well as whole of India.

4. Non-Motorised Craft

Non-Motorised crafts in Alappuzha refers to '*Ponthu*' or '*Pongu*' (a craft made out of Thermocole) which are used by fishermen for their fishing activities without any registration in the department of fisheries, conduct fishing operation within the territorial limit up to 5 to 8 kms from the shore.

5. Fisheries Households

Those households residing in the fisheries villages and depending on sea for livelihood using traditional boats and gears which are Mechanised as well as Non-Mechanised for fishing operation and whose primary source of income is from fishing.

6. Head of the Households

Sea-going fisherman, who is a head of the family, registered as per Kerala Fisheries Welfare Fund Board (who possess a pass book issued by Kerala Fisheries Welfare Fund Board on or before March 2014) and is presently engaged in fishing for livelihood.

7. Owner Cum Crew of a Fishing Craft

A registered fisherman who owns a fishing craft individually or jointly, whether Motorised-Mechanised, Motorised-Non-Mechanised and Non-Motorised and engages himself in fishing and has the responsibility to manage the particular fishing unit.

8. Exclusive Crew

A registered fisherman, who is a wage labourer in a fishing unit, whether Mechanised, Motorised and Non-Motorised, who do not have responsibility to maintain a fishing unit.

9. Bank Branch Penetration (BP)

BP measures the ease with which people in a particular fisheries village can access the scheduled commercial bank's financial services. It was assessed using two indicators such as 'Number of Bank Branches per 100 population in the sample' and 'Number of ATMs per 100 population in the sample'.

10. Credit Penetration (CP)

CP measures the extent of access to loan products offered by scheduled commercial banks in a particular fisheries village. It was determined using 'Number of loan account per 100 population in the sample'.

11. Deposit Penetration (DP)

DP measures the extent of access to savings products offered by scheduled commercial banks in a particular fisheries village. It was measured with the help of three important indicators 'No. Basic Savings Bank Deposit A/c per 100 population in the sample, 'No.SB A/c other

than BSBD per A/c per 100 population in the sample' and 'No. FD A/c per 100 population in the sample'.

12. Financial Literacy

Financial literacy among fisher households refers to awareness of the financial products and services, knowledge of the banking procedures, confidence in dealing with banking personnel and financial management practices including financial attitude, behaviour, planning and budgeting.

1.14 Reference Period

The Primary data collection extended to seven months from November 3rd 2014 to May 31st 2015. The researcher visited the fisheries officers of the respective fisheries villages, and briefed about the objectives and the target group of the study, which helped to create an easy access to the target group. Researcher personally visited the fisher households, accompanied by a woman SHG member of the locality and collected the data using the structured interview schedule. In the initial stage of the survey, people thought it was related to some of the welfare scheme implemented by the Government of Kerala and they over-estimated the debts and expenses. Gradually the respondents were explained about the academic objectives survey and then the data collection was smooth and completed with the full cooperation of the fisher households.

The literature on the topics under study was reviewed up to 2015. The secondary data is collected for the period of eight years from the commencement of the financial inclusion exhortation by RBI in the year 2005 until 31st March 2013 as the first Financial Inclusion Action Plan was completed. Primary data collection from the fisher households through interview schedule was administered during November 2014 to April 2015 and that of the bankers was done in the month of May 2015.

1.15 Limitations

1. A number of technology-based innovative financial products and services have been rolled out by the scheduled banks in view of financial inclusion, but the study had to be limited to the basic banking products and services as the target group was not familiar with all the new generation financial services.
2. Owner cum crew fisher households under three sectors do not maintain proper record of the income and expenditure of fishing units. Hence, the income given by the fisher households has been taken for determining the income level of the family.
3. The difficulty experienced in collecting the quantitative data from the bank branches, the supply side analysis is limited to perspectives of the bank managers towards financial dealings of the fisher folk and problems faced in granting access to all financial products and services.

1.16 Presentation of the Report

Chapter 1, *Introduction* presents the general view of the significance of marine fisheries sector and the importance of financial inclusion of the households for the economic development of the state and the enhancement of the standard of living of this low-income group. It also brings about the objectives, scope, hypotheses, methodology and database adopted for the research and also the limitation experienced in this academic pursuit.

Chapter 2, *Glimpses of Earlier Studies* attempts to present an exhaustive review of the earlier studies undertaken in this field to identify the research gap from where the present research commence.

Chapter 3, *Financial Inclusion - An Ongoing Process* gives a picture of the financial inclusion initiatives taken at State level, National and International levels, a special reference to District of Alappuzha.

Chapter 4, *Financial Inclusion of Marine Fisher Households* portrays an overview of the financial inclusion of fisher folk in Kerala with special

reference to socio-economic factors and the promotional schemes implemented to support the sector.

Chapter 5, *Financial Status* consists of three sections, one dealing with general socio-economic background fisher households, the second section shows the financial soundness of the sample households and in the third section the financial requirements of the owner cum crew households under three category and the sources of finance approached

Chapter 6, *Banking Practices* organise the extent of deposit penetration, credit penetration and the hurdles that hinge the free access to the formal financial services offered by the scheduled commercial banks.

Chapter 7, *Access & Use of Financial Products and Services* outlines a clear picture of the perspective and the problems faced by the financial intermediaries in meaningfully including the fisher households.

Chapter 8, *Financial Literacy* comprised of two sections, in the first section, it conveys a detailed analysis of the financial literacy of the fisher households in terms of their attitude and behaviour earnings, spending, savings, investing and borrowings. And the second section is devoted to discuss about the financial inclusion model feasible for the fisher households.

Chapter 9, *Summary of Findings, Conclusions and Recommendations* contains the summary of the research, findings of the study, conclusions derived and the policy recommendations proposed by the researcher.

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