

Chapter 7

Access and Use of Financial Products and Services

Introduction

Banking practices among the marine fisher households is observed to be low. They mostly rely on informal sources of finance for meeting their financial requirements, especially for the financial needs related to livelihood. Consequently the fisher households are indebted to more than two or three informal sources of finance. Inadequacy of the finance provided by the specialised institutions and commercial banks force the fisher men to rely on money lenders and commission agents. Hassle-free credit offered by commission agents and money lenders is considered as the short-term relief by the fishermen without thinking of the financial risk involved in it. On the other hand majority of the fisher households have savings, not with commercial banks but with Chit-fund. Installments of the Chit-funds are collected at the door step; therefore without any effort they accumulate some savings. Marine fisher households are capable of saving in small sum and could be considered as the potential customers by the commercial banks.

Financial inclusion envisaged to provide four basic financial services like Basic Savings Deposit Bank Account (BSDB Account) with overdraft facility, recurring deposit account, remittance facility and Kisan Credit Card or General Credit Card (KCC/GCC) to anyone who is involuntarily unbanked due to any reason. Hence, the assessment of financial inclusion should be based on these services recommended by RBI. The present research is an attempt to assess the extent of financial inclusion among the marine fisher households, a low-income community in Alappuzha. For this purpose, two dimensions of financial inclusion both access and use have been analysed. This part of the study was conducted with two specific objectives. Objectives and the hypotheses formulated for the study are given below:

- To determine the constraints faced by the scheduled commercial banks in rendering the financial services to the fisher households. The null hypothesis framed before the analysis was, '*there is no significant difference in the constraints faced by the public sector banks and private sector banks in serving the fisher households*'.
- To assess the extent of financial literacy of fisher households from the view point of Commercial banks. The null hypothesis formulated for the analysis is that '*there is no significant difference in the perception of the Public sector banks and Private sector banks on the financial literacy of fisher households*'.

For the purpose of easy comprehension, the result of the analysis has been divided into *three specific sections*:

- A. Penetration of Financial Products and Service
- B. Measurement of Overall Financial Inclusiveness
- C. Constraints of Commercial Banks in Rendering Financial Services

Section –A

7.1 Penetration of Financial Products and Service

The analyse on the access and use of financial inclusion, it is essential to look into the spread of banking net work and the depth of financial service penetration among the marine fisher households. For this purpose four prominent indicators have been identified and analysed in detail and they are given below:

- Branch Penetration
- Bank Account Penetration
- Deposit Penetration
- Credit Penetration

7.1.1 Bank Branch Penetration

Easy access to service outlets has been traced as the influential factor that speed up the process of financial inclusion among the rural households.

To assess the bank penetration in the coastal areas of Alappuzha, two variables are analysed, such as *branch per one lakh population of the Development Block* in Alappuzha and the *distance covered to visit the commercial bank branches*. The result of the analysis is furnished below:

7.1.2 Bank Branch Penetration In Alappuzha

Access to the source of formal financial services is a pre-requisite for ensuring the financial inclusion. Hence, the researcher makes an attempt to calculate the branch per one lakh population of the blocks of Alappuzha based on the data published by the Lead Bank of Alappuzha in its Annual District Credit Plan 2014-2015 (SBT, 2015). Table 7.1 depicts the Community Development Block wise Bank Branch Penetration in the district of Alappuzha.

Table 7.1
Bank Branch Penetration in Alappuzha for the Period 2014-15

Sl. No	Names of Community Development Blocks	Bank Braches	Population	Branch per 1 Lakh Population	Branch per 1 Lakh Population In India is (9.7)
1	<i>Thykattuzherry</i>	9	108992	8.26	<i>Below</i>
2	Kanjikuzhy(Coastal)	28	161262	17.36	Above
3	Pattanakad(Coastal)	21	200600	10.47	Above
4	<i>Aryad (coastal)</i>	13	167379	7.77	<i>Below</i>
5	Ambalappuzha(Coastal)	57	141419	40.31	Above
6	Champakkulam	20	123317	16.22	Above
7	Veliyanad	10	84838	11.79	Above
8	Haripad(Coastal)	26	163350	15.92	Above
9	Bharanikkavu	22	170902	12.87	Above
10	<i>Muthukulam(Coastal)</i>	33	1849897	1.78	<i>Below</i>
11	Mavelikkara	43	147763	29.10	Above
12	Chengannur	50	170675	29.30	Above
	Total	332	3490394	9.51	Below

Source: Alappuzha District Credit Plan 2014-15, Published by Alappuzha Lead Bank

Table 7.1 presents the fact that branch per one lakh population in most of the Community Development Blocks were found to be above the National

penetration of 9.7 as per the Deepak Mohanthy Committee Report. The overall branch penetration of Alappuzha is a little less than the national average. There are three Community Development blocks found to have bank branch penetration below the national average, like Thykattuzherry, Aryad and Muthukulam. Out of these three Community Development Blocks, two of them are coastal blocks namely Aryard and Muthukulam. The analysis clearly brings out the low density of bank branches among the marine fisher households.

An Independent T-test being applied to test the mean difference between the community development blocks having branch per one lakh population 'Above the National Average' and the community development blocks branch per population 'Below the National Average'.

Table 7.2
Independent t-test on the Bank Branch Penetration in Alappuzha

Level of Branch per population based on National Average(9.7)		N	Mean	<i>t</i>	Sig. (2-tailed)
Branch per 1 Lakh Population	Above	9	20.3711	2.34	.041*
	Low	3	5.9367		

Source: Secondary data

**Significant at 0.05 level*

A mean comparison reveals that 'Above Average' category Community Development Blocks have higher mean score compared to 'Below Average' category indicating more density of bank branches in the nine Community Development Blocks, which are categorised as 'Above average'. The *t*-test result showed that *t*-statistics is 2.34 and the *p*-value associated with *t*-statistics is 0.041, which is significant at 0.05 level. The result indicated that there exists a significant difference in the bank branch penetration, in terms of Branch per 1 lakh population, between Community Development Blocks categorised as 'Above the National Average' and the Community Development Blocks categorised as 'Below the National Average'.

7.1.3 Distance Covered to Visit Commercial Bank

Distance to the financial service outlets has been cited as one of the key determinants of financial inclusion. Steps have been taken to enhance the banking penetration among the people especially in the rural areas through bank branches, business correspondents, ultra small banks, kiosks, ICT-based financial models. According to the Nachiket Mor committees' recommendation, the financial service providers should be within the distance of 'fifteen minutes walk' by January 2015. At this point of time, it is apt to assess the distance covered by the marine fisher households to access the formal financial services in Alappuzha.

The information on the availability of financial services for Indian villages was included for the first time in NSS 58th Round in 2002. As per the survey, 2-5 Kilometres was categorised as 'Easy Access', 5-10 kilometres categorised as 'Moderate Access', and 'Above 10 kilometres' was categorised as 'Not Accessible'. It was reported that 93 per cent of the villages in Kerala had 'Easy Access to financial services', six per cent of the villages have 'Moderate Financial Access' and less than one per cent alone was included in the 'Not Accessible' category (Bhavani & Bhanumurthy, 2012). But even after 13 years of strenuous efforts to branch out among the weaker sections of the society, in Alappuzha out of the 30 marine fisheries villages, there are more than 15 fisheries villages without a formal banking outlet within 4-5 kms; for instance, fisher households in Pallithode (South), Pallithode (North), Thyckal, Omanappuzha, Azheekal etc in the Northern parts of Alappuzha coast have to go to the National highways in Thuravoor or Thanky, which means they have to travel six to seven kilometres, wasting a lot of time in waiting for bus in the less connected areas. And in the Southern coast of Alappuzha, fisheries villages like Valizheekal, Kallikad, Punthala, also have to depend upon Arattuppuzha or Kundalloor bank for their financial services. To be specific, the total length of Arattuppuzha Grama Panchayath is six Kms, and it accommodates four fisheries villages and the fisher households have to travel more than three kms. Another important area deserted by the public sector

banks and private sector banks is from Purakkad junction to Thrikunnappuzha junction, the distance is almost 10 kms.,.

In this context, it is important to assess the distance covered by the fisher households to avail the financial services. Three fisheries villages selected for the study namely Arattuppuzha from Muthukulam Block, Ambalappuzha from Ambalappuzha Block and Arthunkal from Kanjikuzhy Block. The Financial Inclusion Index calculation of this sample is done based on the primary data from the selected fisher households.

Table 7.3

Distance Covered to Avail Financial Services by Fisher Households

Types of Craft	N	Mean	SD	<i>F</i>	Sig.
Mechanised	22	2.00	1.86	0.151	0.860
Motorised	78	1.84	1.52		
Non- Motorised	78	1.90	1.38		
Year of Opening Bank Account	N	Mean	SD	<i>t</i>	Sig.
Before 2010	70	2.16	1.74	1.81	0.072
After 2010	130	1.75	1.41		

Source: Field Survey

Table.7.3 presents the mean distance to be covered by the fisher households by Types of Craft to visit nearby scheduled commercial bank. It reveals that distance to be covered to visit the commercial bank by fisher households by Mechanised (2.00), Motorised (1.84) and Non-Motorised sectors (1.90) are almost same, it is less than two kilometres. The F-test result showed a value of 0.151 with *p*-value (0.869, $p > 0.05$), indicating that there is no significant difference among the fisheries households with regard to the distance covered to visit a commercial bank branch. The table also presents the distance covered by fisher household by their year of opening bank account. Independent t-test has been applied to test the difference between fisher households who opened bank account Before 2010 and After 2010 in the distance covered to visit a bank branch. First of all, the mean comparison reveals that Before 2010 category fisher households have a high mean score

than the After 2010 fisher households. The t -statistics found to be 1.81. The p -value associated with t -statistic (0.072, $p > 0.05$), indicates that the mean distance covered by the Before 2010 and After 2010 category to visit the commercial banking outlet does not differ significantly.

7.2 Bank Account Penetration

Bank account is the initial step to avail the financial services from commercial banks. In India, bank account has become a financial identity for the citizens. Financial inclusion drive has been successful in this aspect. Bank account penetration has been assessed based on three variables such as:

- Per Head Bank Account
- Year of Opening bank Account
- Types of Bank Preferred

7.2.1 Per Head Bank Account

Access to bank account was considered as public good, since 2005 No-Frill Accounts (NFAs) has been offered to any person desirous to open a bank account (Puhazhendhi, 2012). Kerala being a fully financially included State, it was immaterial to check whether every households has bank account. Hence, Per Head Bank Account is calculated to assess the account penetration among the fisher households. An initial analysis showed that all three sectors of fisher households under Mechanised, Motorised and Non-Motorised have per head bank account 'Above 75 per cent'; indicating more than 75 per cent of the members in the family own a bank account.

7.2.2 Year of Opening Bank Account

Bank Account Penetration by the Year of Opening Bank Account was undertaken to determine whether they have opened the bank account as part of the financial inclusion plan commenced in 2010 or they had been connected to banking sector before 2010. The result showed that 70 (35.00 per cent) out of 200 fisher households have opened the bank account before 2010 and 130 of the fisher households (65.00 per cent) have acquired the ownership of a bank

account only after 2010, when the financial inclusion initiatives were in progress at National level.

7.2.3 Types of Bank Preferred

A further analysis on the types of bank preferred by fisher households revealed that more than 70 per cent of the fisher households under Mechanised, Motorised and Non-Motorised sector have opened their bank accounts in public sector banks and the analysis based on the Year of Opening Bank Account also showed the same result that around 70 to 75 per cent of the Before 2010 and After 2010 categories have commenced banking business with public sector banks.

Analysis on the account penetration among marine fisher households showed that 75 per cent of the family members of every fisher household own bank accounts and most of them have opened their accounts in public sector banks. Another important fact to be brought to light is that 65 per cent of the households have opened their banks accounts only after 2010. Financial inclusion drive has been successful in connecting the marine fisher household to the commercial banks.

7.3 Deposit Penetration

Indians are known for their saving culture. But certain groups of people like fisher households are known for their inability to generate savings in cash. It is an effort to comprehend the deposit penetration of the fisher households under Mechanised and Motorised and Non-Motorised sectors as well as Year of Opening Account like Before 2010 and After 2010. Statistical tools like, descriptive statistics, Chi-Square and F-test have been used for the analysis. *Deposit Penetration* among the fisher households has been evaluated taking six variables such as:

- Ownership of various types of deposit accounts
- Sources preferred by fisher households in making their savings
- Motivating factors to save the surplus

- Saving habit
- Saving Potential
- Reasons for the inability to Save

7.3.1 Ownership of Different Types of Deposit Accounts

Deposit penetration has been measured by various national and international forums by taking number of bank account per one lakh population. But the current scenario of financial inclusion, the State of Kerala being fully financially included, it is irrelevant to assess the number of deposit account per population. Therefore the researcher tries to assess the ownership of the types of deposit account possessed by the fisher households. A Chi-Square statistics was calculated to test the significance of the difference among the fisher households by Types of Craft with respect to the ownership of different deposit accounts like Fixed deposit account, Savings deposit accounts and Basic Savings Bank Deposit Account with overdraft facility.

Table.7.4

Ownership of Types of Deposit Accounts among Fisher Households

#Types of Deposit Accounts	Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
	n	%	n	%	n	%	n	%	n	%
Fixed Deposit Account.	8	18	5	6	0	0	7	10	6	5
Saving Deposit A/c	18	41	14	18	16	21	26	37	22	17
BSBD Account with overdraft facility	44	100	78	100	78	100	70	100	130	100
χ^2	15.902						7.137			
Sig.	.003*						.028*			

Source: Field Survey

*Significant at 0.05 level

#Multiple Response

From the table 7.4 it can be observed that 18 per cent of the fisher households in the Mechanised sector and just six per cent in the Motorised sector own fixed deposit accounts but none of the fisher household under Non-Motorised sector has fixed deposit account. Ownership of Savings Deposit

Account has been held by 41 per cent of the fisher households in the Mechanised sector, 18 per cent of the Motorised sector and 21 per cent of the Non- Motorised sector fisher households. BSBDA has been owned by every household as the account had been opened to route the welfare schemes of the Govt. The result of the Chi-Square test result showed a value of 24.286, *p*-value associated with it is 0.003, which is found to be significant at the 0.05 level indicating a significant difference in the ownership of types of deposit accounts held by the fisher households under three different sectors.

The result of the Chi-Square test for the difference in the ownership of types of deposit accounts held by the fisher households on the basis of Year of Opening Bank Account also shows a Chi-Square value of 24.286, the significance value associated with it is 0.028 which is seen to be significant at the 0.05 level. Therefore, it can be inferred that ownership of types of accounts held by fisher households differ significantly by Year of Opening Bank Account of the head of the household.

7.3.2 Sources Preferred for Savings

It is widely believed that fisher households have less saving habit due to their irregular and seasonal income which is the inherent nature of the occupation. The fisher households based on Types of craft as well as Year of Opening Bank Account were asked to articulate their preferred sources of making savings. The response presented in Table 7.5 enables to make a comparison of the preference of the households by Types of craft and Year of Opening Bank Account.

Table.7.5
Sources Preferred by Fisher Households to Make Savings

#Sources preferred for making Savings	Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
	n	%	n	%	n	%	n	%	n	%
Savings in Banks	14	31.82	12	15.38	8	10.26	18	25.71	16	12.30
Savings in SHGs	7	15.91	12	15.38	15	19.23	5	7.142	29	22.30
Savings in Societies	2	04.55	3	03.84	13	16.67	6	08.57	12	09.23
Savings in Chit Funds	22	100.00	50	64.10	56	71.79	40	57.14	91	70.00
Savings in Post office	9	20.45	14	17.94	5	6.41	10	14.28	18	13.84
Savings in LIC	15	34.09	18	23.07	11	14.10	21	30.00	23	17.69
χ^2	41.977						25.386			
Sig.	.000*						.000*			

Source: Field Survey

*Significant at 0.05level

#Multiple Response

The Chi-Square test result for the difference in the preference of sources expressed by the fisher households based on Types of Craft shows that 31.82 per cent of fisher households under Mechanised sector, 15.38 per cent of the Motorised sector and only 10 per cent of the Non-Motorised sector prefer to make their savings in commercial banks. Nearly, 57 per cent of the fisher households under Mechanised sector, 64.10 per cent of the Motorised sector and 71.79 per cent of the Non-Motorised sector prefer to make their savings in chit funds. The number of fisher households that prefer to make savings in cooperative societies are found to be least with respect to Mechanised and Motorised sector but 16.67 per cent of the Non-Motorised sector households prefer this source. Post office savings are preferred mostly by Mechanised fisher households followed by Motorised sector households and it is found to be least preferred one by the Non-Motorised sectors. The Chi-Square result suggests that there is significant difference in the preference of the fisher

households under Types of Craft in making savings as the Chi-Square value is found to be of 41.977, and the p -value of the Chi-Square value is 0.000 which is significant at the 0.05 level.

A comparison of the Chi-Square result for the difference in the preference of sources stated by the fisher households by Year of Opening Bank Account showed that 25.71 per cent of the fisher households under Before 2010 category and 12.30 per cent of the fisher households belonging to the After 2010 category prefer Commercial bank for making their savings. The highest per cent of fisher households under both the categories prefer chit funds to make their savings. The least preferred source to park their savings is cooperative societies. The Chi-Square test shows that the Chi-Square value is 25.386, the significance value of Chi-Square is 0.000, which is significant at the 0.05 level, indicating that preference of the fisher households for the sources to make savings differ significantly by Year of Opening Bank Account.

7.3.3 Motivating Factors to Save

Matsyafed, Cooperative societies, SHGs and other institutions facilitate savings among the fisher households. At times, it becomes a forced savings. Matsyafed compulsorily cuts 2 per cent of the daily earnings of the fishing unit which is affiliated to it and the savings could be withdrawn only at the end of a year, or it could be withdrawn during a festive season as predetermined by the fishing unit. But the savings in Cooperative societies and SHGs are of more encouraging one to save their small surplus. It is interesting to know the factors that motivate the fisher household in saving their surplus. The households under study were asked to rank their motivations in the order of priority.

Table 7.6
Motivating Factors of Marine Fisher Households to Save

Basis for the Source Preference	Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Safety of the Fund	6.07	1	6.18	1	5.56	1	6.27	1	5.72	1
Rate of Interest Paid	3.68	5	3.56	5	3.33	5	3.5	5	3.5	5
Proximity of the Institution	4.68	3	4.78	3	5.22	2	4.9	2	4.95	2
Overdraft Facility Attached to it	3.09	6	2.72	6	2.79	6	2.76	6	2.87	6
Diversified Financial Services	1.91	7	1.83	7	2.29	7	1.94	7	2.08	7
Expectation of Getting Advances	4.75	2	4.91	2	4.96	3	4.8	3	4.95	3
Approachability of the Staff	3.82	4	4.01	4	3.83	4	3.83	4	3.94	4
Spearman Rank Correlation	Mechanised		1.000**		0.964**		1.000**			
	Motorised				0.964**					

Source: Field Survey

**Significant at 0.05 level*

Table 7.6 reveals that the prominent factor that motivates the fisher households under Mechanised, Motorised and Non-Motorised sector is the 'Safety of the fund' as its mean score is the highest among all other factors. Expectation of getting advance has been ranked as the second motivating factor for Mechanised and Motorised sectors while Non-Motorised sector is ranked as third. Fisher households under all three sectors ranked 'Diversified Financial services' as the least motivating factor in making savings.

Analysis based on the key factor that motivates the fisher households to make savings by Year of Opening Bank Account is found to be similar as in the case of Types of Craft. The second prominent motivating factor that prompt the savings is found to be 'Proximity of the source' for both category of fisher

households. And 'Diversified financial services' is seen to be the least motivating factor for Before 2010 as well as After 2010 as in the case of Types of Craft. To be specific, the result shows that 'Safety of the fund' is considered to be the principal motivating factor for almost all the fisher households by Types of Craft as well as by Year of Opening Bank Account in making savings.

Spearman Rank Correlation coefficients show that factors that motivate the fisher households to save is identical for Mechanised sector and Motorised sector households as Spearman Rank Correlation coefficients is 1.00. 'safety of fund' is found to be their first motivation for savings and expectation of getting advances, proximity of the institution and approachability of staff are the other important motivating factors for Mechanised and Motorised sector. The first motivating factor for Non-Motorised sector is same as that of Mechanised and Motorised sector namely 'safety of the fund'. The second and the third factors of Non-Motorised sector are proximity of the institution and expectation of getting advances respectively. The ranks given by all other motivating factors by the Non-Motorised sector is identical to the Mechanised and Motorised sector.

7.3.4 Savings Habit among the Fisher Households

Fisher households with number of options in respect of sources with varied time structure of making savings, there are fisher households who are unable to make any savings in cash in any of the sources due to various reasons. The responses of the households regarding their savings have been presented in the table below.

Table 7.7
Saving Habit among Fisher Households

Savings among fisher Households		Types of Craft						Year of Opening Bank Account			
		Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
		N	%	N	%	N	%	N	%	N	%
Savings in any institution	Yes	39	88.6	59	75.6	61	78.2	55	78.6	104	80.0
	No	5	11.4	19	24.4	17	21.8	15	21.4	26	20.0
χ^2		3.047						0.057			
Sig.		0.218						0.811			

Source: Field Survey

Table 7.7 revealed that 20.5 per cent fisher households under study are unable to make any savings. It was found that 24.4 of the fisher households under Motorised sector and 21.8 per cent of the Non-Motorised sector and 11.4 per cent of the Mechanised do not have any savings. Significance value of the Chi-Square is 0.218, which is not significant at the 0.05 level. Analysis based on the Year of opening bank account 21.2 per cent of the Before 2010 category fisher household and 20.00 per cent of the fisher households under After 2010 category expressed that they were unable to make any savings in any source. *p*-value of Chi-Square is found to be 0.81, which is not significant at the 0.05 level. It can be concluded that more than 75 per cent of the fisher households under three sectors have savings in anyone of the formal or informal sources.

The analysis shows that there is no difference in the saving habit among fisher households under Mechanised, Motorised and Non-Motorised sectors. A similar result is also observed among the fisher households who opened bank account Before 2010 and After 2010.

7.3.5 Saving Potential of Fisher Households

Earlier studies have showed that fixed deposit and recurring deposits with commercial banks have not yet become popular among fisher households. When discussing the deposit penetration of fisher households in the context of

financial inclusion through scheduled commercial banks, the extent of fisher households who really make savings in the commercial banks is a matter of interest. In addition to that it reveals the saving habit and saving potential of the fisher households in spite of the irregular and seasonal income from fishing. The responses of the fisher households on the frequency of making savings by Types of Craft have been given in the table below.

Table 7.8
Frequency of Savings among Fisher Households by Types of Craft

Frequency of savings in various financial Institutions	Mechanised					Motorised					Non- Motorised				
	Nil	Fortnightly	Monthly	Quarterly	Irregularly	Nil	Fortnightly	Monthly	Quarterly	Irregularly	Nil	Fortnightly	Monthly	Quarterly	Irregularly
Banks	30 (68.2)	-	1 (2.3)	1 (2.3)	12 (27.3)	65 (83.3)	2 (2.6)	-	-	11 (14.1)	69 (88.5)	-	-	-	9 (11.5)
SHG	38 (86.4)	6 13.6)	-	-	-	61 (78.2)	16 (20.5)	-	-	1 (1.3)	60 (76.9)	17 (21.8)	1 (1.3)	-	-
Societies	44 (100)	-	-	-	-	77 (98.7)	1 (1.3)	-	-	-	72 (92.3)	1 (1.3)	1 (1.3)	-	4 (5.1)
Chit Funds	19 (43.2)	23 (52.3)	2 (4.5)	-	-	27 (34.6)	48 (61.5)	-	-	-	24 (30.8)	48 (61.5)	5 (6.4)	-	1 (1.3)
Pvt Agencies	44 (100)	-	-	-	-	76 (97.4)	2 (2.6)	-	-	-	72 (92.3)	-	6 (7.7)	-	-
Post Office	35 (79.6)	-	9 (20.5)	-	-	62 (79.5)	1 (1.3)	15 (19.2)	-	-	-	-	4 (5.1)	1 (1.3)	-
LIC	31 (70.5)	-	2 (4.5)	11 (25.0)	-	55 (70.5)	1 (1.3)	8 (10.3)	14 (18.0)	-	67 (85.9)	-	2 (2.6)	9 (11.5)	-

Source: Field Survey

Table 7.8 shows that 68.2 per cent of fisher households under Mechanised sector, 83.3 per cent of the Motorised sector and 88.5 per cent of the fisher households under Non-Motorised sector do not have any savings in scheduled commercial banks. Around 32 per cent of the fisher households in Mechanised sector, 16.7 per cent of the Motorised sector and 11.5 per cent of the Non-Motorised sector have savings in commercial banks but most of them are irregular in making their savings. Savings in chit funds is found to be most prominent way of making savings among the fisher households. 52.3 per cent of the fisher households under Mechanised sector, 61.5 per cent of the Motorised sector and an equal per cent of the Non-Motorised sector save in chit funds fortnightly. It is also observed that 20.5 per cent of the fisher households under Mechanised sector and 19.2 per cent of the Motorised sector are found to make savings monthly in Post Offices. But only a meagre per cent of fisher households under Non-Motorised Sector hold savings in Post Offices. There are fisher households who make saving in SHGs out of the low-income on a weekly basis, it was found that 13.6 per cent of the fisher households under Mechanised sector, 20.5 per cent of the Motorised sector and 21.8 per of the Non-Motorised sector are able to save on a weekly basis.

Table 7.9
Frequency of Savings by Year of Opening Bank Account

Frequency of savings in various institutions	Before 2010					After 2010				
	Nil	Fortnightly	Monthly	Quarterly	Irregularly	Nil	Fortnightly	Monthly	Quarterly	Irregularly
Banks	53	1	1	0	15	111	1	-	1	17
	(75.71)	(1.43)	(1.43)	-	(21.43)	(85.38)	(0.77)	-	(0.77)	(13.08)
SHG	61	8	-	-	1	98	31	1	-	-
	(87.14)	(11.43)	-	-	(1.43)	(75.38)	(23.85)	(0.77)	-	-
Societies	67	2	-	-	1	126	-	1	-	3
	(95.71)	(2.86)	-	-	(1.43)	(96.92)	-	(0.77)	-	(2.31)
Chit funds	29	35	5	-	1	41	84	5	-	-
	(41.43)	(50.00)	(7.14)	-	(1.43)	(24.12)	(49.41)	(2.94)	-	-
Pvt Agencies	66	2	2	-	-	126	-	4	-	-
	(94.29)	(2.86)	(2.86)	-	-	(96.92)	-	(3.08)	-	-
Post office	59	1	9	1	-	111	-	19	-	-
	(84.29)	(1.43)	(12.86)	(1.43)	-	(85.38)	-	(14.62)	-	-
LIC	49	1	6	14	-	104	-	6	20	-
	(70.00)	(1.43)	(8.57)	(20.00)	-	(80.00)	-	(4.62)	(15.38)	-

Source: Field Survey

Table 7.9 depicts the analysis of the result on the frequency of savings of fisher households by Year of Opening Bank Account. It reveals that 75.71 per cent of the fisher households under Before 2010 category and 85.38 per cent of the After 2010 category do not have savings in commercial banks. About 24 per cent of the Before 2010 category and around 15 per cent of the After 2010 category fisher households having savings in commercial banks, most of them are irregular in making savings. It is found that 12.86 per cent of the Before 2010 category fisher households and 14.62 of the After 2010 category are able to save monthly in Post Offices. Around 57 per cent of the fisher households under Before 2010 category and 52 per cent of the After 2010 category are making savings in chit funds on fortnightly basis.

Table 7.10
Savings Penetration of the Fisher Household

#Savings in various Financial Institutions	Types of Craft						Year of Opening Bank Account			
	Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
	n	%	n	%	n	%	n	%	n	%
Banks	14	20.90	13	11.11	9	9.28	17	17.17	19	10.27
SHG	6	8.96	17	14.53	18	18.56	9	9.09	32	17.30
Chit Fund	25	37.31	48	41.03	54	55.67	41	41.41	89	48.11
Post Office	9	13.43	16	13.68	5	5.15	11	11.11	19	10.27
LIC	13	19.40	23	19.66	11	11.34	21	21.21	26	14.05
Total	67		117		97		99		185	
χ^2	17.660						8.103			
Sig.	0.024*						0.088*			

Source: Field Survey

*Significant at 0.05 level

#Multiple Response

Table 7.10 presents the saving penetration of the fisher households in various financial institutions by Types of Craft and Year of Opening Bank Account. It reveals that most preferred financial institution among the five sources is Chit-Funds. About 37.00 per cent of the households under Mechanised sector, 41.03 per cent of the Motorised sector and 55.67 per cent of the Non-Motorised sector have savings in Chit Funds. But there exists a significant difference in the financial institutions chosen to save by the fisher households based on Types of Craft at 0.05 level.

The Chi-Square test for saving penetration among fisher households by Year of Opening Bank Account such as the Before 2010 and After 2010 category, showed that the significance value of Chi-Square is 0.088 , which is found to be significant at the 0.05 level. It indicated that there is no significant difference in the saving penetration of fisher households whether they opened the bank account Before 2010 or After 2010.

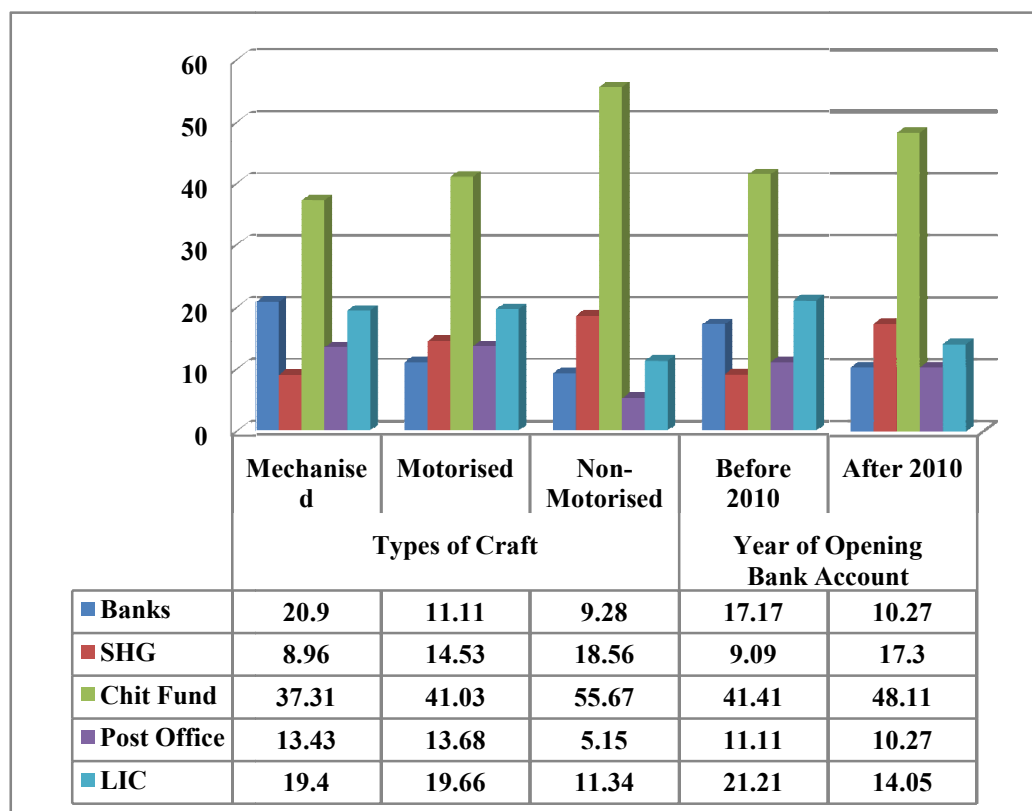


Figure.7.1

Saving Penetration of Fisher Households by Types of Craft and Year of Opening Bank Account

7.3.6 Reason for the Inability to Save

Fisher households in general have savings in a different style. There exists a system of giving credit to friends and relatives when they are in need either with or without interest ranging from 12 to 36 per cent. Therefore, when the life-cycle celebrations and social functions take place, a gift becomes a burden, if the loan has been received without interest. An aspect that needs to be looked into is how many households save in cash in any of the sources whether formal or informal. The respondent households were asked to convey their reasons for the lack of savings in any of the sources of finance and a Pearson Chi-Square test was conducted to assess the difference in the reasons for the inability to make savings.

Table 7.11
Causes Cited by Fisher Households for the Lack of Savings

Causes for Lack of Savings	Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
	n	%	n	%	n	%	n	%	n	%
Lack of Income	5	11.36	19	24.36	17	21.79	15	21.43	26	20.00
Repair of the Fishing Inputs	1	2.27	10	12.82	8	10.26	9	12.86	10	7.69
Frequent Life Cycle Celebrations	5	11.36	8	10.26	11	14.10	10	14.29	14	10.77
Others	1	2.27	8	10.26	3	3.85	2	2.86	10	7.69
χ^2	10.45						5.32			
Sig.	.235 ^a						.256			

Source: Field Survey

a. More than 20% of cells in this subtable have expected cell counts less than 5.

Table 7.11 reveals that highest per cent of fisher households under Motorised sector and Non-Motorised sector have expressed ‘lack of income’ as the major reason for lack of savings in any of the financial institutions. The Mechanised sector households cited two reasons such as ‘Lack of income’ and ‘frequent life cycle celebrations’ equally reduce their surplus to save. Second major reason cited for the inability to save for Motorised sector is ‘frequent repair and depreciation of the fishing inputs’, while, for the Non-Motorised sector, it is the ‘life-cycle celebrations’. An analysis based on the year of opening bank account reveals that 21.43 per cent of the fisher households under Before 2010 category and 20.00 per cent of the After 2010 category responded ‘lack of income’ as the reason for the lack of savings. Second main reason cited was ‘life-cycle celebrations’ by Before 2010 category households as well as After 2010 category fisher households.

Table 7.11 further indicates that the reasons cited for not saving by fisher households by Types of Craft do not differ as the p -value associated with Chi-Square is 0.235, which is not significant at the 0.05 level. Similarly, an analysis based on the Year of Opening Bank Account, also revealed that there is no significant difference in the reasons cited by fisher households for not making any savings. Hence, we can infer that reasons cited for the lack of

savings among fisher households by Types of Craft and Year of Opening Bank Accounts do not differ significantly

The analysis of the frequency making savings by Types of Craft and Year of Opening Bank Account reveals that majority of the fisher households are able to generate savings in cash once in a week and it could be tapped by the formal financial sources. But some sort of reluctance is observed among the fisher households to save in commercial banks. They are more comfortable with savings in informal sources like SHGs and Chit-Funds compared to commercial banks, cooperative societies, and post offices.

7.4 Credit Penetration

One of the basic financial services offered as a part of financial inclusion initiative by RBI was to provide adequate credit to the low-income groups and vulnerable sections of the society at an affordable cost. Availability of adequate credit had been the long standing demand of the fisher folk characterised by peculiar financial requirements. Though number of easily accessible sources of finance are available to the fisher households like Matsyafed, Primary cooperative societies, MFI and SHGs, these informal sources have fixed the maximum amount that can be sanctioned to a borrower or to a group of borrowers. In this context, the researcher makes an attempt to assess the role played by the alternative sources of finance among the fisher households in meeting their financial requirements. And also makes a detailed analysis of the loans availed by fisher households from public and private sector commercial banks for meeting their financial needs besides the occupational needs to procure fishing inputs. The households were asked to express their difficulty in applying for the institutional credit and the reasons for the refusal of credit if loan applications were rejected. Statistical tools like Descriptive Statistics, Chi-Square, *T*-test, *F*-test, ANOVA, MANOVA have been applied to undertake a detailed analysis of credit penetration. The *Credit Penetration* has been elaborately analysed with the help of eleven aspects of credit penetration such as:

- Availability of Institutional Credit
- Purposes of Loan Availed
- Extent of Repayment
- Reasons for Irregular Repayment of Loan
- Loan Outstanding from Alternative Source of Finance
- Size of Loan Amount
- Alternate Financial Sources cater to the Financial Requirements
- Rate of Interest Paid
- Loan Requisition and Denial of Loans
- Causes for Not Demanding Formal Credit
- Causes for Denial of Loans

7.4.1 Institutional Credit Availed by Fisher Households

Formal financial institutions providing loans with stringent conditions, the number of loan closed by 2010 and loans outstanding by 2014 by the fisher households were of significance in the light of financial inclusion initiatives. To understand the depth of credit penetration among the fisher households by commercial banks, average amount of loan granted after 2010 is also calculated. For that purpose ANOVA has been undertaken and the results are presented in the table given below.

Table 7. 12**Loans Availed by Fisher Households from Scheduled Commercial Banks**

Types of Bank	Loans Disbursed	Mechanised		Motorised		Non- Motorised		ANOVA	
		Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	F	Sig.
Public Sector Banks	Loans Closed	0.05	0.21	0.04	0.19	0.05	0.22	0.07	0.92
	Loans outstanding	0.09	0.29	0.10	0.31	0.10	0.31	0.02	0.97
	Amount of loan Outstanding	2568.18	9097.40	18910.26	70732.01	15192.31	62040.22	1.11	0.33
Private Sector Banks	Loans Closed	0.05	0.21	0.01	0.11	0.01	0.11	0.92	0.39
	Loans Outstanding	0.09	0.29	0.03	0.16	0.01	0.11	2.73	0.06
	Amount of loan Outstanding	36931.82	172573.60	384.62	2518.66	448.72	3962.97	3.51	0.03*

Source: Field Survey

*Significant at 0.05 level

Table 7.12 presents the number of loans taken by the fisher households by Types of Craft. It covers the number of loans closed, loans outstanding and average amount of loan outstanding, which are availed from public sector banks and private sector banks. Firstly, the number of loans availed both closed and outstanding, the average amount loans outstanding from public sector banks was analysed. ANOVA was carried out to find the difference in the variance on the number of loans closed. And the *F*-statistic calculated for number of loan closed was 0.074 and the significance value pertaining to *F*-Statistics was 0.929, which is not significant at the 0.05 level. Similarly, the *p*-value associated with the *F*-statistics calculated for finding the variance in the number of loans outstanding is seen to be 0.975. The average amount of loans outstanding also did not show any significant variance among the fisher households under three sectors. The table further revealed that highest average amount of loans was granted to the fisher households in Motorised sector by the public sector banks and it is found to be ₹18,910/-

The number of loan availed by fisher households from private sector banks also shows that there is no difference in the number of loans closed and number of loans outstanding by fisher households by Types of Craft as the *p-value* of the *F*-statistics calculated for number of loans closed as *F*-value (0.397, *p*-value > 0.05) and for the number of loans outstanding as *F*-value (0.067, *p*>0.05). Therefore, it can be inferred that there is no significant difference in the number of loans closed and number of loans outstanding from private sector banks to the fisher households by Types of Craft. But the average amount of loan provided by private sector banks significantly differ as the significance value of *F*-statistics is found to be 0.032, which is significant at 0.05 level.

Table 7.13
Loans Availed by Fisher Households from Scheduled Commercial Banks
by Year of Opening Bank Account

Types of Bank	Loans Disbursed	Before 2010		After 2010		Total		ANOVA	
		Mean	SD	Mean	SD	Mean	SD	<i>F</i>	Sig.
Public Sector Banks	Loans Closed	0.04	0.20	0.05	0.21	0.05	0.21	0.01	0.91
	Loans outstanding	0.13	0.34	0.08	0.28	0.10	0.30	0.97	0.32
	Amount of loan Outstanding	19042.86	68647.90	11076.92	53181.66	13865.00	59007.77	0.82	0.36
Private Sector Banks	Loans Closed	0.04	0.20	0.01	0.09	0.02	0.14	2.88	0.09
	Loans Outstanding	0.07	0.26	0.02	0.12	0.04	0.18	4.28	0.04*
	Amount of loan Outstanding	8285.71	42976.95	8538.46	96473.57	8450.00	81692.82	0.00	0.98

Source: Field Survey

*Significant at 0.05 level

Table 7.13 shows an analysis on the basis of Year of Opening Bank Account and it reveals that number of loans closed, number of loans outstanding and the average amount of loans sanctioned from the public banks do not differ significantly on the basis of Year of Opening Bank Account. The significance value of *F*-statistics for the number of loan accounts closed is

observed to be 0.915, the p -value value associated with number of loans outstanding is found to be 0.325 and that of the average amount of loans outstanding from public sector banks is 0.364, which are not significant at the 0.05 level, indicating no variation in the number of loans closed, loans outstanding and the average amount of loans outstanding among the fisher households by Year of Opening Bank Account. Similar analysis on the number of loans closed and average amount of loan outstanding among the fisher households by Year of Opening Bank Account from private banks do not differ significantly. But the number of loans outstanding among the fisher households from private sector banks vary significantly by Year of Opening Bank Account.

In this study of financial inclusion among fisher households, an analysis on the basis of Types of bank would be appropriate to assess the extent of loan disbursement by public sector banks and private sector banks to the marine fisher households. The fisher households have bank accounts with public sector and private sector banks in the ratio 3:1. A litmus test of actual financial inclusion through bank led model could be assessed by the credit penetration effected by commercial banks.

Table 7.14

Loan Disbursement by Commercial Banks to the Fisher Households

Loan Details	Public Sector Banks			Private Sector Banks			t	Sig.
	Mean	SD	N	Mean	SD	N		
Closed	0.05	0.21	200	0.02	0.14	200	1.677	0.094
Outstanding	0.10	0.30	200	0.04	0.18	200	2.419	0.017*
Amount of loan	13865.00	59007.77	200	8450.00	81692.82	200	0.758	0.465

Source: Field Survey

** Significant at 0.05 level*

Table 7.14 presents the result of the t-test conducted to identify the variance in the number of loans closed and the average amount of loan outstanding by public sector banks and private sector banks. Significance value

of the *t*-statistic does not vary significantly as the *p*-value of number of loans closed is 0.094, which is not significant at the 0.05 level. The *P*-value of the *t*-statistic on loans outstanding was observed to be 0.017, which is significant at the 0.05 level, indicating that number of loans outstanding varies by public sector banks and private sector banks. Public sector banks provide more loans to the fisher households compared to private sector banks. In analysing the variance in the average amount of loan disbursed by commercial banks to the fisher households, it was found that the significance value of the *t*-statistic as 0.465, which is greater than the significant level of 0.05 per cent. Hence, it can be inferred that there is no difference in the number of loans closed and average amount of loans distributed to the fisher households by public and private sector banks.

7.4.2 Purposes of Loan Availed from Commercial Banks

The major financial requirements of fisher households include housing, education of the children, life-cycle events in the family, occupational requirements, medical expenses .of the family members and for self employment. An attempt was made to examine the purpose for which the fisher households have availed loans from commercial banks. Majority of the fisher households under study are BPL, it was required to see how many loans under various schemes like Priority Sector Loans, Differential Rate of Interest Loans and loans granted to the weaker sections of the society have been received by the fisher households.

Table 7.15
Purpose of Loans Availed from Scheduled Commercial Banks

*Purpose of Loan	Types of Craft						Total	Year of Opening Bank Account			
	Mechanised		Motorised		Non-Motorised			Before 2010		After 2010	
	n	%	n	%	n	%	n	%	n	%	
Housing Loan	2	16.67	4	25	2	20	8	5	25	3	16.67
Small Business Loan	2	16.67	2	12.5	2	20	6	3	15	3	16.67
Loan for fishing activities	4	33.33	5	31.25	1	10	10	7	35	3	16.67
Education Loan	3	25	4	25	1	10	8	2	10	6	33.33
Any other	1	8.33	1	6.25	4	40	6	3	15	3	16.67
Total	12	100	16	100	10	100	38	20	100	18	100.00
Scheme –Based											
DRI Loans	0	0	1	6.25	1	6.25	2	0	0	2	11.11
Agri.Allied Loans	0	0	1	6.25	0		1	1	5	0	0
Self Employment	0	0	0	0	1	6.25	1	0	0	1	05.60
Total	0	0	2	12.5	2	12.5	4	1	5	3	16.67
<i>*Multiple Response</i>											

Source: Field Survey

Table 7.15 indicates that out of the 200 households, just ten fisher households have (five per cent of the total) availed loans from commercial banks for fishing activities. Highest per cent of loans availed for fishing activities falls under Motorised sector (33.33 per cent), followed by Mechanised sector (31.25 per cent) and a meagre per cent of households under Non- Motorised sector have received (10.00 per cent) formal credit. Eight of the 200 fisher households have received housing loans from commercial banks and equal number of households have received educational loans also.

When comparing this aspect on the basis of Year of Opening Bank Account, it was found that except the educational loan, all other loans were availed more by the Before 2010 category fisher households than After 2010 category fisher households. Another point to be noted is that more number of loans are availed by Before 2010 category households compared to After 2010 category households.

It is interesting to look into the number of loans granted by public sector and private sector banks to the fisher households for their various financial requirements. For this purpose, the analysis has been divided into two parts. In the first part of the table 7.16 depicts the purpose of the loans granted as a general customer and the second part considers the scheme-based loans granted to the fisher households.

Table 7.16
Loans Disbursed by Scheduled Commercial Banks

Loans Sanctioned by Commercial Banks	Public Sector	Private Sector	Total
Housing Loan	6	2	8
Small Business Loan	4	2	6
Loans for Fishing Activities	6	4	10
Education Loan	7	1	8
Any other (specify)	5	1	6
Total	28	10	38
Scheme-Based Loans			
DRI Loans	2	...	2
Agricultural & Allied Activities	1	...	1
Self Employment	1	...	1
Total	4	0	4
Grand Total	32	10	42

Source: Field Survey

Table 7.16 presents the sector-wise analysis of the bank loan disbursed to the fisher households. It revealed that out of the 38 loans, public sector have provided 28 loans for various purposes including procuring fishing inputs, which is 73.68 per cent of the total and the remaining 10 loans have been provided by private sector banks, which comes up to 26.31 per cent. An analysis on the scheme-based lending also shows that public sector banks have outperformed the private sector banks. None of the fisher households under study have received scheme-based loans from private sector banks.

7.4.3 Extent of Repayment of Loans Availed From Scheduled Commercial Banks

Repayment of loans is a commitment by the customers who availed loans. It is applicable to rich and poor, whether the amount is big or small. The table 7.17 presents the extent of repayment made by the fisher households regarding the outstanding loans.

Table.7. 17

Repayment of the Loans Availed from Commercial Banks

Regularity of Loan Repayment	Mechanised	Motorised	Non-Motorised	Before 2010	After 2010	
	n	n	n	n	n	
Loans taken by Fisher Households from Commercial Banks	10	15	17	10	32	
Number of Loans Closed	2	2	3	2	5	
Number of Loans Outstanding	8	13	14	8	27	
Repay the Loan Regularly	Yes	6 (75 %)	8 (62 %)	6 (43%)	5(63 %)	15 (56%)
	No	2(25 %)	5(38%)	8(57%)	3(37%)	12(44%)

Source: Field Survey

The rate of repayment by the fisher households by Types of Craft to the commercial banks revealed that out of the 35 of the outstanding loans, 75 per cent of the fisher households under Mechanised sector, 38 per cent of the Motorised sector and 43 per cent of the Non-Motorised sector have been repaying the loan regularly. From the table it can be observed that highest per cent of irregular repayment of loan was found to be among the fisher households under Non-Motorised sector, it was seen to be 57 per cent. Regular repayment by fisher households by Year of Opening Bank Account, it was revealed that After 2010 (44.00 per cent) category fisher household are found

to be irregular in making the repayment of the loan compared to Before 2010 (37.00 per cent)

7.4.4 Reasons for Irregular Repayment of Loan

Income from fishing is seasonal and irregular. The problems faced by the fisher households in repaying the loan are diverse. First of all, the variation in the income of the fisher household depend much on the crafts used, technology adopted etc. For instance, fishing units fishing in the same fishing ground will have different quantities and qualities of catch. Then the frequent damage of the fishing implements empties their pockets and at times enhance the indebtedness unexpectedly. The major reasons cited by the fisher households who are unable to repay the loan regularly have been depicted below.

Table 7.18
Reasons for the Irregular Repayment of Loans Taken from
Scheduled Commercial Banks

#Reasons for Defaults	Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
	N=2	%	N=5	%	N=8	%	N=3	%	N=12	%
Irregular income from fishing	2	100	4	80	4	50	3	100	6	50
Multiple loans	2	100	4	80	2	25	3	100	5	42
Expectation of Debt Waive	1	50	0	0	1	12.5	0	0	2	17
Willful Default	1	50	0	0	1	12.5	1	33.33	1	8
Lack of monitoring	0	-	2	40	0	0	0	0	2	17
Any other	0	-	1	20	0		0	0	1	8

Source: Field Survey
Multiple Response

From Table 7.18, it can be seen that fisher households under all the sectors expressed ‘irregular income from fishing’ as the major reason for the irregular repayment of loans from commercial banks. The second major reason cited was the ‘multiple loans’ taken from different sources. There are also fisher households delay in repayment with the ‘expectation of debt waive off’

as they have the experience of debt waived off in 2008, more of the Motorised sector fisher households are found in this category compared to other two sectors. And a meagre per cent of fisher households said that they were 'irresponsible' regarding the repayment of the loan. Finally, about 40 per cent of them said that 'lack of monitoring' as the reasons for the irregular loan repayment compared to other informal sources.

Reasons for the irregular repayment of loan by fisher households on the basis of Year of Opening Bank Account also found 'irregular income from fishing' as the prominent reason for the irregularity of repayment. 'Expectation of debt waive off' has been more among the After 2010 category than Before 2010 category households. A small per cent of the households pointed that 'lack of alternative source of income' also affects the regular repayment of the loan taken from commercial banks.

7.4.5 Alternative Financial Sources Cater to the Financial Requirements

The alternative source of finance has been perceived by fisher households as easily accessible, hassle-free, availability of repeat loan repayment is flexible and above all lead time is short. The non-institutional sources of finance have emerged 'to rescue' the fisher households but in fact they are all the more drowned in the financial indebtedness. The fact that the fisheries sector is dominated by informal financial players, the researcher was interested to know the spread and depth of such non-institutional sources among the fisher households. One important aspect to be kept in mind while analysing the extent of alternative sources of finance is that these service providers generally make women responsible for the repayment of the loan and these loan amounts are used mainly for consumption purpose rather than productive purpose.

Table 7.19
Alternative Sources of Finance Depended by Fisher Households by Types
of Craft

Alternate Sources of Finance	Number of Loans Closed(Sum product)	Mechanised Sector							
		Nil	1	2	3	4	5	6	7
Money Lenders	2	42	2	-	-	-	-	-	-
Commission Agents	0	44	-	-	-	-	-	-	-
Cooperative Societies	3	41	3	-	-	-	-	-	-
SHGs	15	37	4	1		1	1	-	-
Friends & Relatives	8	39	4	-	-	1		-	-
Microfinance Institutions	28	31	5	5		2	1	-	-
Private Financial Institutions	2	42	2	-	-	-	-	-	-
Matsyafed	3	41	3	-	-	-	-	-	-
Any other	0	34	-	-	-	-	-	-	-
Alternate Sources of Finance	Number of Loans Closed(Sum product)	Motorised							
		Nil	1	2	3	4	5	6	7
Money Lenders	0	78	-	-	-	-	-	-	-
Commission Agents	0	78	-	-	-	-	-	-	-
Cooperative Societies	3	75	3	-	-	-	-	-	-
SHGs	16	70	2	4	2	-	-	-	-
Friends & Relatives	22	68	5	1	2	1	1	-	-
Microfinance Institutions	59	50	14	9	1	-	1	2	1
Private Financial Institutions	1	77	1	-	-	-	-	-	-
Matsyafed	0	78	-	-	-	-	-	-	-
Any other	0	63	-	-	-	-	-	-	-
Alternate Sources of Finance	Number of Loans Closed(Sum product)	Non- Motorised							
		Nil	1	2	3	4	5	6	7
Money Lenders	7	74	1	3	-	-	-	-	-
Commission Agents	0	78	-	-	-	-	-	-	-
Cooperative Societies	5	73	5	-	-	-	-	-	-
SHGs	9	71	6	-	1	-	-	-	-
Friends & Relatives	3	75	3	-	-	-	-	-	-
Microfinance Institutions	54	50	19	4	2	-	-	-	3
Private Financial Institutions	4	76	1		1				
Matsyafed	0	78	-	-	-	-	-	-	-
Any other	0	48	-	-	-	-	-	-	-

Source: Field Survey

The Table 7.19 presents the number of loans availed and closed from various non-institutional sources after 2010. It was found that fisher households under Mechanised sector have taken and closed 28 loans. There are families who have taken four to five times from MFIs. Similarly, they also have depended on SHGs. Friends and Neighbours have been another alternate source of finance for the fisher households in case of emergency. As in the case of fisher households under Mechanised sector, Motorised sector households also principally depend upon the MFIs and they have availed highest number of loans (59 loans), there are households who have availed up to seven loans. Motorised sector households have not taken loan from money lenders and commission agents for the household consumption purpose. But they also enjoyed loans from friends and neighbours. Finally, the Non-Motorised sector fisher households are not much behind in taking loans from MFIs, they have availed 54 loans and a few households have closed seven loans so far. The second preferred alternate source of credit for this sector was SHGs and they have taken nine loans for meeting their requirements. It is alarming to note that besides the MFIs, these fisher households also depend heavily on money lenders.

Table 7.20
Alternative Sources Depended by Fisher Households by Year of Opening
Bank Account

Alternate Sources of Finance	Number of Loans Closed(Sum product)	Before 2010							
		Nil	1	2	3	4	5	6	7
<i>Money Lenders</i>	1	69	1	-	-	-	-	-	-
Commission Agents	0	70	0	-	-	-	-	-	-
Cooperative Societies	2	68	2	-	-	-	-	-	-
SHGs	6	65	4	1	-	-	-	-	-
Friends & Relatives	7	64	5	1	-	-	-	-	-
Microfinance Institutions	65	39	18	6	2	1	1	1	2
Private Financial Institutions	1	69	1	-	-	-	-	-	-
Matsyafed	1	69	1	-	-	-	-	-	-
Any Other	0	63	-	-	-	-	-	-	-
Alternate Sources of Finance	Number of Loans Closed(Sum Product)	After 2010							
		Nil	1	2	3	4	5	6	7
<i>Money Lenders</i>	8	125	2	3	-	-	-	-	-
Commission Agents	0	130	-	-	-	-	-	-	-
Cooperative Societies	9	121	9	-	-	-	-	-	-
SHGs	34	113	8	4	3	1	1	-	-
Friends & Relatives	26	118	7	-	2	2	1	-	-
Microfinance Institutions	76	92	20	12	1	1	1	1	2
Private Financial Institutions	6	126	3	-	-	-	-	-	-
Matsyafed	2	128	2	-	-	-	-	-	-
Any Other	0	82	-	-	-	-	-	-	-

Source: Field Survey

A comparison of the number of loans availed and closed by fisher households by Year of opening account has been presented in Table 7.20. It can be observed from the table that 70 of the households under Before 2010 category have availed 65 loans from Microfinance institutions and there are a few households that have taken six to seven times from the Microfinance alone. Next major sources depended by Before 2010 are Friends & Neighbours and

SHGs. Dependence on Matsyafed and Cooperative societies have been very minimal by this category of fisher households. Number of sources depended by fisher households on the basis of Year of opening bank account have shown that out of the 130 fisher households under After 2010 category, have availed 76 loans from Microfinance institution, 26 loan from Friends & Neighbours and 34 loans from SHGs. It is interesting to note that some of these households have taken more than five loans from each of these informal institutions. There also households under this category depend on money lenders, cooperative societies and private financial institutions. Just two loans alone were reported to have availed from Matsyafed.

A detailed analysis of the number of sources depended by fisher households, shows that informal financial service providers have succeeded in meeting the financial requirements even for consumption purposes. Moreover, these alternative sources of finance have developed a strong bond with these households so as to provide repeat loans for five to seven times for a family.

7.4.6 Loans Outstanding from Alternative Sources of Finance

Under the aegis of RBI, style of providing financial service has changed considerably. After having completed the first target of Financial Inclusion Plan in 2013, the researcher tries to analyse the current status of fisher households regarding their dependence on alternative sources of finance and the situation of multiple loans existing among the fisher households. The details of the analysis are depicted below.

Table 7.21
Number of Loans Outstanding from Alternative Sources of Finance

Other Alternate Sources of Finance	Mechanised					
	Number of Loans Outstanding (Sum Product)	Nil	1	2	3	4
Money Lenders	5	39	5	-	-	-
Commission Agents	0	44		-	-	-
Cooperative Societies	6	38	6	-	-	-
SHGs	9	35	9	-	-	-
Friends & Neighbours	13	32	11	1	-	-
Microfinance Institutions	23	27	12	4	1	-
Private Financial Institutions	4	40	4	-	-	-
Matsyafed	7	37	7	-	-	-
Any other	1	33	1	-	-	-
Other Alternate Sources of Finance	Motorised					
	Number of Loans Outstanding (Sum Product)	Nil	1	2	3	4
Money Lenders	3	75	3	-	-	-
Commission Agents	0	78	-	-	-	-
Cooperative societies	5	73	5	-	-	-
SHGs	12	67	10	1	-	-
Friends & Relatives	15	63	15	-	-	-
Microfinance Institutions	44	48	19	9	1	1
Private Financial Institutions	7	71	7	-	-	-
Matsyafed	4	74	4	-	-	-
Any other	1	62	1	-	-	-
Other Alternate Sources of Finance	Non- Motorised					
	Number of Loans Outstanding (Sum Product)	Nil	1	2	3	4
Money Lenders	10	68	10	-	-	-
Commission Agents	2	76	2	-	-	-
Cooperative societies	13	65	13	-	-	-
SHGs	9	69	9	-	-	-
Friends & Neighbours	17	61	17	-	-	-
Microfinance Institutions	44	41	32	4		1
Private Financial Institutions	9	69	9	-	-	-
Matsyafed	5	73	5	-	-	-
Any other	0	48	-	-	-	-

Sources: Field Survey

Table 7.21 reveals the number of loans currently taken by the fisher households under Mechanised sector. Number of loans outstanding for the fisher households under Mechanised sector was 23 from Microfinance institutions, 13 loans from friends and Neighbours and nine loans taken from SHGs. Mechanised sector households have more loans outstanding from cooperative societies and Matsyafed compared to other sectors. They also have loans outstanding from money lenders and private financial institutions. The current status of loans outstanding to the alternative sources of finance by the fisher household under Motorised sector is also similar to Mechanised sector. There are 44 loans outstanding for the 78 households to Microfinance alone. A few of the households have four loans outstanding at a time. Major number of loans outstanding is from friends & neighbours and SHGs. Households are also indebted to cooperative societies and Matsyafed. As in the case of Mechanised and Motorised sectors, fisher households under Non-Mechanised sector also have majority of the loans outstanding to Microfinance institutions. Non-Mechanised with 78 of the households have 44 loans currently outstanding to Microfinance institutions. Second highest number of loans found to be outstanding in friends and Neighbours and followed by Cooperative societies. It is to be noted that fisher households under this sector have highest number of loans outstanding from cooperative societies (13) compared to Mechanised (6) and Motorised sector households (5).

Table 7.22
Loans Outstanding from Alternative Sources of Finance by Year of
Opening Bank Account

Other Alternate Sources of Finance	Before 2010					
	Number of Loans Outstanding (Sum Product)	Nil	1	2	3	4
Money Lenders	6	64	6	-	-	-
Commission Agents	0	70		-	-	-
Cooperative Societies	7	63	7	-	-	-
SHGs	6	64	6	-	-	-
Friends & Neighbours	18	52	18	-	-	-
Microfinance Institutions	43	35	27	8	-	-
Private Financial Institutions	5	65	5	-	-	-
Matsyafed	3	67	3	-	-	-
Any other	2	61	2	-	-	-
Other Alternate Sources of Finance	After 2010					
	Number of Loans Outstanding (Sum Product)	Nil	1	2	3	4
Money Lenders	12	118	12	-	-	-
Commission Agents	2	128	2	-	-	-
Cooperative Societies	17	113	17	-	-	-
SHGs	24	107	22	1	-	-
Friends & Neighbours	27	104	25	1	-	-
Microfinance Institutions	68	81	36	9	2	2
Private Financial Institutions	15	115	15	-	-	-
Matsyafed	13	117	13	-	-	-
Any other	0	82	-	-	-	-

Source: Field Survey

Table 7.22 reveals that Before 2010 category households and After 2010 households have more loans outstanding in Micro finance institutions. It is Before 2010 category households (52.3 per cent) that are depending on the Microfinance institutions compared to After 2010 category households (61.42 per cent). When Before 2010 category households have 18 loans (25.71 per

cent) outstanding from Friends& Neighbours, After 2010 category households have only 27 loans (20.76 per cent). Another point to be highlighted is that After 2010 category households have 17 loans outstanding (13.00 per cent), while, Before 2010 has just 10 per cent loans outstanding from cooperative societies.

7.4.7 Size of the Loan Amount Availed from Alternative Sources of Finance

The amount of loan sanctioned by the alternative sources are fixed and limited. For instance Microfinance institutions loans begins with ₹10000/- for the initial borrower and it get advanced by ₹5000/- and its ceiling comes up to be ₹30000 and in the case of SHGs, it begins with ₹5,000/- and its maximum limit goes up to ₹ 15,000/-. Another, important point to be highlighted in this regard is that larger amount loans are distributed to a group rather than to individuals. The average amount of loan availed by fisher households from various sources have been analysed by undertaking MANOVA, as it is used to examine whether independent variables like Types of Craft and Year of Opening Bank Account explain the variation in the dependent variables on average loan amount availed by fisher households

Table.7.23
Average Amount of Loan Availed from Alternative Sources of Finance by
Types of Craft

Non-Institutionalised Sources of Finance Depended	Mechanised	Motorised	Non- Motorised	ANOVA		MANOVA	
	Mean	Mean	Mean	F	Sig.	F	Sig.
Money Lenders	8545.45	7371.79	12756.41	1.337	0.266	1.36	0.14
Commission Agents	0.00	0.00	256.41	1.011	0.367		
Cooperative Societies	25954.55	4596.15	13269.23	3.562	0.031*		
SHGs	3488.37	3551.28	2115.38	1.088	0.340		
Friends & Neighbours	12727.27	18423.08	11858.97	0.476	0.622		
Microfinance Institutions	9340.91	10846.15	10064.10	2.25	0.109		
Private Financial Institutions	6250.00	4102.56	8500.00	1.333	0.267		
Matsyafed	13931.84	3269.23	5192.31	1.717	0.183		
Any other	26470.59	1587.30	0.00	1.524	0.221		

Source: Field Survey

**Significant at 0.05 level*

Table 7.23 depicts the ANOVA test result of the variation of mean score of each non-institutionalised sources of finance depended by fisher households by Types of Craft. It was found that there is no significant difference in the amount of loan availed by fisher households of different sectors from all sources except cooperative societies as the significance level of ANOVA are greater than 0.05. In the case of cooperative societies, mean amount of loan provided to fisher households under Mechanised sector was more than five of the Motorised sector and more than two times of the Non-Motorised sector. However, the composite variable representing amount of money taken from different non-institutional sources of finance is concerned, there is no significant difference among the fisher households in three different sectors in their dependence on the alternative sources as the significance value of F-statistic of MANOVA is greater than the significant level of 0.05.

Table 7.24
Average Loan Amount Availed from Alternative Sources of Finance by
Year of Opening Bank Account

Non-Institutionalised Sources of Finance	Before 2010	After 2010	ANOVA		MANOVA	
	Mean	Mean	F	Sig.	F	Sig.
Money Lenders	4728.57	12423.08	2.367	0.126	1.412	0.189
Commission Agents	0.00	153.85	0.767	0.383		
Cooperative societies	12071.43	13003.85	0.001	0.973		
SHGs	1086.96	3976.92	1.98	0.162		
Friends & Neighbours	20428.57	11476.92	0.424	0.516		
Micro finance Institutions	11028.57	9769.23	0.215	0.644		
Private Financial Institutions	1857.14	8676.92	2.443	0.120		
Matsyafed	800.01	9361.54	1.641	0.202		
Any other	15873.02	0.00	1.596	0.208		

Source: Field Survey

From the table 7.24 it can be found that the ANOVA test result of the variation of mean score of non-institutionalised sources of finance depended by fisher households based on Year of Opening Bank Account by the head of the households. It was found that there is no significant difference in the mean score variation that is the average amount of loan availed by the fisher households by Year of Opening Bank Account from alternate sources of finance as the *P*-value associated with *F*-statistics calculated are not significant at 0.05 level. It indicates that there is no significant difference in the average amount of loan availed from these alternative sources of finance by fisher households under Before 2010 and After 2010. So to say, those households that opened bank account Before 2010 are not different from those that opened bank account After 2010 in depending upon the alternative sources of finance for meeting their financial requirements. The MANOVA test was conducted to assess the variation on the average amount of loan availed by fisher households by Year of Opening Bank Account when all these alternative sources of finance are taken together. The output of MANOVA reveals that there is no significant difference in the average amount of finance availed by fisher households by Year of Opening Bank Account as the significance value of *F*-

statistics observed to be 0.147, which is greater than the significant level of 0.05, indicating that there is no significant difference among the average loan amount received from the alternative sources of finance taken together. Therefore, it can be concluded that there is no significant difference in the average proportion of loan received from these sources of finance by fisher households by Types of Craft.

7.4.8 Interest Paid to the Alternative Sources of Income

The non-availability of institutional credit forces the fisher households to pay exorbitant rate of interest besides the service charges like processing fees, service tax, secondary cess and educational cess. The service charges alone come up to 1.2 per cent of the loan amount besides the interest. The rate of interest charged by money lenders and friends and relatives vary with the urgency of the need. Hence, an attempt to understand the difference in the average rate on interest charges by various alternative sources of finance.

Table 7.25
Rate of Interest Paid by the Fisher Households to the Alternative Sources of Credit by Types of Craft

Non-Institutionalised Agencies	Mechanised	Motorised	Non-Motorised	ANOVA		MANOVA	
	Mean	Mean	Mean	F	Sig.	F	Sig.
Money Lenders	27.00	48.00	39.11	1.076	0.343	0.970	0.489
Cooperative Societies	14.22	14.63	16.64	1.549	0.215		
SHGs	11.38	18.00	15.00	0.606	0.546		
Friends & Relatives	18.83	13.91	12.44	0.471	0.625		
Micro finance Institutions	20.96	19.83	20.21	0.409	0.665		
Private Financial Institutions	18.25	18.57	31.08	0.67	0.513		
Matsyafed	11.78	12.84	12.6	1.947	0.145		
Any other	15.00	15.00	0.00	0.78	0.46		

Source: Field Survey

Table 7.25 shows the average interest rates paid for the loans availed from various sources of finance, money lenders charge more interest compared to all other alternative sources of finance and least interest rate is charged by

Matsyafed. The interest rate charged by the SHGs is seen to be moderately low in comparison to the Microfinance institutions. But the ANOVA result revealed that p -values are not significant as they are greater than the significant level of 0.05. Similarly, the MANOVA result also shows that there is no difference in the average rate of interest paid by the fisher households in availing loans from various alternative sources of finance as the p -value of F -statistics is found to be 0.489, which is less than the significant level of 0.05.

Table 7.26
Rate of Interest paid by the Fisher Households to the Alternate Source of Credit by Year of Opening Bank Account

Non-Institutionalised Agencies	Before 2010	After 2010	ANOVA		MANOVA	
	Mean	Mean	F	Sig.	F	Sig.
Money Lenders	37.2	36.31	0.323	0.57	1.659	0.111
Cooperative Societies	16.33	15.05	0.274	0.601		
SHGs	12.83	15.81	3.03	0.083		
Friends & Relatives	11.75	15.89	0.642	0.424		
Micro finance Institutions	20.21	20.23	2.502	0.115		
Private Financial Institutions	17.6	25.97	1.315	0.253		
Matsyafed	10.33	12.75	2.694	0.102		
Any other	15	000	3.785	0.053		

Table 7.26 presents the test results of ANOVA and MANOVA on the average rate of interest paid by fisher households, on the analysis based on the Year of Opening Bank Account. As per the ANOVA result, it was found that average interest rate charged by each alternative sources of finance does not vary significantly as the p -values are greater than the significant level of 0.05. A similar result was found in MANOVA as the significant value of F -statistic was observed to be 0.11, which is greater than the significant level of 0.05, indicating that there is no significant difference in the average rate of interest paid by fisher households when the interest rates of various alternative sources of finance taken together.

7.4.9 Loans Requisition and Denial of Loans

The vital role played by the informal sources among the fisher households made the researcher to explore the demand put forward by the fisher households in getting loans from the scheduled commercial banks. It has been said that lack of awareness of the financial services make the low-income group to depend on the informal sources. Hence, the demand asserted by the fisher households for the formal credit has been presented in four parts such as number of fisher households who approached and did not approach the formal institutions for credit and fisher household who availed loans and who had the experience of denial of loans.

Table 7.27

Loans Requisition and Denial among the Fisher Households by Types of Craft

Response to the Application of Loans		Mechanised		Motorised		Non-Motorised		χ^2	Sig
		n=44	%	n=78	%	n=78	%		
Whether Applied for loans	Applied (n=83)	22	50.00	32	41.03	29	37.18	1.91	0.38
	Not Applied (n=117)	22	50.00	46	58.97	49	62.82		
Incidence of denial of loans	Loans Sanctioned (n=42)	10	45.45	15	46.88	17	58.62	1.15	0.15
	Loans Refused (n=41)	12	54.55	17	53.13	12	41.38		

Source: Field Survey

The first part of table 7.27 presented an interesting result that only 83 fisher households (41.5 per cent) have applied for a loan in the bank. A further analysis revealed that highest per cent among the households who approached for loans were from Mechanised sector (50 per cent) compared to Motorised (41.03 per cent) and Non- Motorised sectors (37.18 per cent). But the Chi-Square test result showed that there is no significant difference in the number of loan applicants by Types of Craft as the Chi-Square value for the difference

between the loan applicants by Types of Craft has been 1.916 with the p -value 0.384 is less than the significant level of 0.05.

The second part of the table presents the number of fisher households who were sanctioned credit and who were denied of loan. Chi-Square test result indicated that there is no significant difference in the number of loans sanctioned/denied by Types of Craft as the significance value of Chi-Square is found to be 0.157, which is not significant at 0.05 level. Therefore, it can be inferred that there is no significant difference in the loans sanctioned and denied by fisher households by Types of Craft in sanctioning the loans.

Table 7.28
Details of the Loans requested/Denied by the Fisher Households by Year of Opening Bank Account

Application for Loans of Commercial Banks		Before 2010		After 2010		χ^2	Sig.
		n=70	%	n=130	%		
Whether applied for loans	Approached (n=83)	32	45.71	51	39.23	0.788	0.375
	Not Approached (n=117)	38	54.29	79	60.77		
Incidence of denial of loans	Loans Sanctioned (n=42)	10	31.25	32	62.75	7.803	.005*
	Loans Refused(41)	22	68.75	19	37.25		

Source: Field Survey

**Significant at 0.05 level*

As in the case of crafts-wise analysis, it was found that number of loan applicants does not vary by year of opening account as the Chi-Square test result reveals that P -value is greater than the significant level of 0.05.

Year of Opening Bank Account-wise analysis on the number of denial of loans found that there is significant difference in the denial of loans between the fisher households by Year of opening bank account, as the Chi-Square test result reveals a p -value of 0.005, which is significant at 0.05 level. The result indicates that there exists a significant difference in the number of loan denials by Year of Opening Bank Account.

7.4.10 Causes for Not Demanding Formal Credit

The knowledge of the non-assertion of fisher households for credit from banks, made to reflect on the reasons behind such behaviour. Earlier analysis of this study revealed that 117 fisher households (58.5 per cent) have not approached commercial banks for various reasons. An in-depth analysis showed that 50 per cent of the fisher households under Mechanised sector, 58.97 per cent of the Motorised sector and 62.82 per cent of the fisher households belonging to the Non-Motorised sector have not approached banks for credit so far. A recent study report published by RBI regarding the rural credit, indicated that rural areas in India account for just 10 per cent of the loan outstanding in India and majority of the credit outstanding has been issued by Nationalised banks. Andhra Pradesh is rated as the most credit friendly State in the five-point scale of rating, while Kerala was included in the ‘average credit’ issuing state (Rural Report Card Access to Credit-Easy to Borrow in rural AP, 2016). Another important factor to be remembered is the lending policies of the banking institutions after the debt waive off in 2008. The reasons cited by the fisher households living in rural areas are inserted below.

Table.7.29

Reasons for the Not Demanding Formal Credit by Types of Craft

Reasons for not Approaching Bank for Credit	Mechanised		Motorised		Non-Motorised		χ^2	Sig.
	n	%	n	%	n	%		
Houses are Located in the CRZ	7	31.82	26	63.41	29	60.42	32.0 62	.001*
Procedural Delay	20	90.91	27	65.85	21	43.75		
We Hear Bank do not Give for Fishing Activities	4	18.18	16	39.02	18	37.5		
Not Able to Pay the Instalments Regularly	12	54.55	31	75.61	30	62.5		
Fear of Legal Proceedings	10	45.45	10	24.39	16	33.33		
Lack of Other Quality Collateral to Offer	10	45.45	25	60.98	25	52.08		

Source: Field Survey

*Significant at 0.05 level

As the Table 7.29 indicates highest per cent of the households (90.91 per cent) under Mechanised sector, 65.85 per cent of the Motorised sector and 43.75 of the Non-Motorised sector expressed that ‘procedural delay’ is the most prominent reason for not approaching the banks for credit. Another major reason cited by all three sectors is ‘inability to pay the instalment regularly’. About 63.41 per cent of the households under Motorised sector and 60.42 per cent of the Non-Motorised sector have revealed that ‘houses are located within the Coastal Regulation Zone’. Chi-Square test results shows a value of 32.062, its *p*-value is observed to be 0.001, which is significant at 0.05 level, indicating that there is significant difference in the reasons cited by fisher households under three sectors for not approaching the commercial banks for credit.

Table.7.30

Reasons for Not Demanding Formal Credit by Year of Opening Bank Account

Reasons for not Approaching Bank	Before 2010		After 2010		χ^2	Sig.
	n	%	n	%		
Houses are Located in the CRZ	22	61.11	40	53.33	8.108	0.23
Procedural Delay	20	55.56	48	64		
We Hear that Bank do not Give for Fishing Activities	11	30.56	27	36		
Not Able to Pay the Instalments in Time Due to the Nature of the Occupation	22	61.11	51	68		
Fear of Legal Proceedings	14	38.89	22	29.33		
Lack of Collateral to Offer	14	38.89	46	61.33		

Source: Field Survey

The Chi-Square analysis on the basis of Year of Opening Bank Account indicates that the reasons cited for not approaching commercial banks for loans by fisher households by their Year of Opening Bank Account is not significant. The Chi-Square value obtained for the same was 8.108, significance value of the Chi-Square is found to be 0.23, which is not significant at the 0.05 level. Therefore it can be inferred that there is no difference in the reasons cited by fisher households who opened bank account before 2010 and after 2010.

7.4.11 Causes for the Denial of Loans

Fishing industry has been titled as high-risk profile sector by the financial institutions. Human lives as well as assets are also exposed to very high risk besides the seasonal and irregular income. The insurance coverage for the lives of fishermen and of the vessels are possible but not for the gears. Most of the fishing vessels operating in Alappuzha do not have insurance coverage because they cannot afford to pay the very high premium. In the absence of insurance premium, financial institutions are reluctant to issue loans to the fisher households. The fisher households who had the experience of denial of loans were asked to give the reasons cited by the commercial banks in refusing loans. Analysis shows that 49.39 per cent of the fisher households who applied for the institutional credit have been denied due to various reasons. The reasons cited by the commercial banks in refusing the loans are given as under.

Table 7. 31

Reasons for the Denial of Loans by Commercial Banks

Sl.No	Reasons for the Denial of Credit	Types of Craft				ANOVA		
			Mechanised	Motorised	Non-Motorised	Total	F	Sig.
1	Low and irregular income	Mean	2.67	2.35	2.67	2.54	0.738	0.485
		SD	0.78	0.86	0.78	0.81		
2	Borrowings from multiple sources	Mean	1.67	1.47	1.17	1.44	1.994	0.15
		SD	0.78	0.62	0.39	0.63		
3	Fishing inputs are not insured	Mean	1.67	1.29	1.08	1.34	2.649	0.084
		SD	0.98	0.47	0.29	0.66		
4	Fishing inputs are not considered as collateral	Mean	1.83	2.29	2.25	2.15	0.898	0.416
		SD	1.03	0.92	0.97	0.96		
5	Lack of other collateral securities	Mean	2.50	2.24	2.17	2.29	0.429	0.654
		SD	0.90	0.97	0.94	0.93		
6	Fishing is considered as risky investment	Mean	1.67	1.41	1.67	1.56	0.483	0.621
		SD	0.89	0.71	0.89	0.81		
7	Bad credit history of fishermen in general	Mean	2.83	2.41	2.50	2.56	1.201	0.312
		SD	0.58	0.80	0.80	0.74		
8	Currently loan is outstanding	Mean	1.08	1.29	1.33	1.24	0.766	0.472
		SD	0.29	0.59	0.65	0.54		
9	Bank is not the area bank	Mean	1.00	1.29	1.08	1.15	1.992	0.15
		SD	0.00	0.59	0.29	0.42		
10	Loan provided are not yet received	Mean	2.17	2.53	2.33	2.37	0.73	0.489
		SD	0.94	0.72	0.78	0.80		

Source: Field Survey

Table 7.31 presents ANOVA test result of the ten reasons cited by the commercial banks in denying the loans to the fisher households. A detailed analysis reveals that two of the main reasons cited by fisher households for the denial of loans are 'bad credit history of fisher households in general' and the irregular income of the households'. In order to identify whether there is any difference among the mean score of the reasons cited by fisher households by Types of Craft, ANOVA was undertaken, the test result reveals that there is no difference in the mean score of the responses cited by the fisher households by Types of Craft as the significant values of the F -statistics of the responses of the fisher households are found to be less than the significant level of 0.05. Therefore, it can be concluded that there is no significant difference in the causes cited to the fisher households under three sectors by the commercial banks in denying the loan applications.

Table 7.32
Reasons Cited by the Commercial Banks for the Denial of Loans by Year
of Opening Bank Account

Sl. No	Reasons Cited for the Denial of Loans	Year of Opening Bank Account			ANOVA		
			Before 2010	After 2010	Total	F	Sig.
1	Low and Irregular Income	Mean	2.41	2.68	2.54	1.18	0.28
		SD	0.91	0.67	0.81		
2	Borrowings from Multiple Sources	Mean	1.55	1.32	1.44	1.35	0.25
		SD	0.74	0.48	0.63		
3	Fishing Inputs are not Insured	Mean	1.36	1.32	1.34	0.05	0.82
		SD	0.73	0.58	0.66		
4	Fishing Inputs are not Considered as Collateral	Mean	2.23	2.05	2.15	0.33	0.57
		SD	0.97	0.97	0.96		
5	Lack of other Collateral Securities	Mean	2.32	2.26	2.29	0.04	0.85
		SD	0.95	0.93	0.93		
6	Investment in Fishing is Considered as Risky	Mean	1.59	1.53	1.56	0.06	0.80
		SD	0.80	0.84	0.81		
7	Bad Credit History of Fishermen in General	Mean	2.59	2.53	2.56	0.08	0.79
		SD	0.67	0.84	0.74		
8	Currently Loan is Outstanding	Mean	1.27	1.21	1.24	0.13	0.72
		SD	0.55	0.54	0.54		
9	Bank is not the Area Bank	Mean	1.18	1.11	1.15	0.33	0.57
		SD	0.50	0.32	0.42		
10	Loan Provided are not yet Repaid	Mean	2.32	2.42	2.37	0.17	0.69
		SD	0.84	0.77	0.80		

Source: Field Survey

The two prominent reasons cited for denying the loans to the fisher households are ‘irregular income and ‘multiple loans’. Year of opening Bank Account-wise analysis conducted to ascertain the difference in the reasons cited by banks for refusing a bank credit has been found that there is no significant difference in the reasons cited to the fisher households under Mechanised, Motorised and Non-Motorised sectors. The ANOVA test result showed that the p -values associated with the F -statistic are not significant at the 0.05 level. Therefore, it can be said that there is no significant difference in the reasons cited by the commercial banks in denying the loans to the fisher households whether opened their bank account before 2010 and after 2010.

The analysis indicates that commercial banks have failed to provide credit products to the fisher households. Major share of the financial requirements of fisher households are met by informal sources of finance. It can be seen that 58 per cent of the fisher households have not yet requested for a loan product from a commercial bank due to the unsuitability of the credit product offered by the commercial banks. But fisher households have availed more than four loans from the same informal source. There should be formal financial products and services that would match the requirement of the high net worth groups as well as low-income groups.

Section-B

Measurement of Overall Financial Inclusiveness

7.5 Financial Inclusion Index of Fisher Households

The methodology used in constructing the Financial Inclusion Index of the sample regions like Arattappuzha, Ambalappuzha and Arthunkal is that of UNDP development indices such as Human Development Index, Human Poverty Index and it is more similar to CRISIL-Inclusix, a financial inclusion measure used in India to assess the district-wise financial inclusion Index from 2009. The present index is comprised of *three critical dimensions* of financial inclusion. The three vital dimensions aggregated to devise Financial Inclusion Index are:

- Bank Branch Penetration (PP)
- Deposit Penetration (DP)
- Credit Penetration (CP)

7.5.1 Conceptual Framework of Financial Inclusion Index (FII)

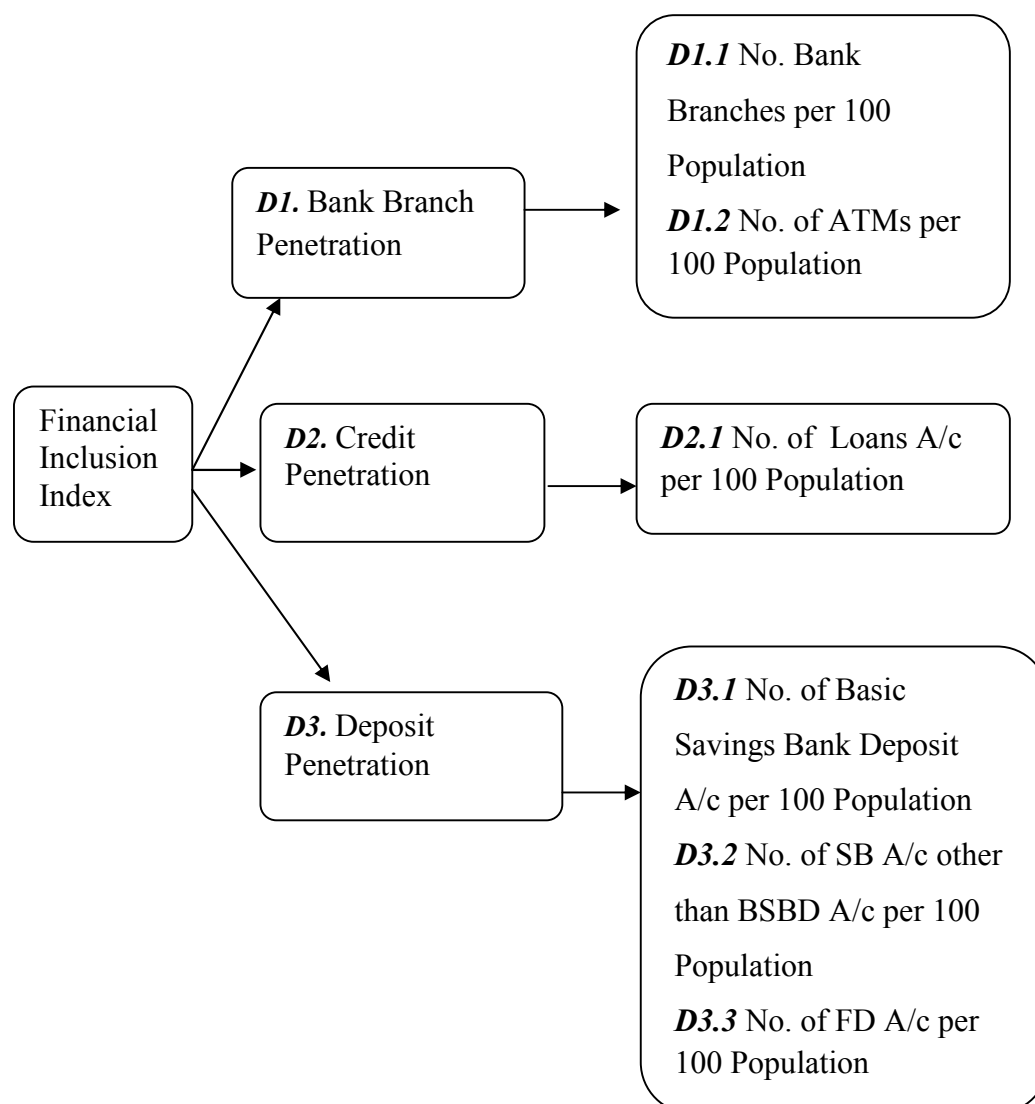


Figure 7.2

Compiled by the Researcher from the CRISIL-Inclusix 2014

7.5.2 Computation of the Financial Inclusion Index

In order to compute Financial Inclusion Index, the indicators have to be normalised as the indicators have different units. As a second step dimension index is to be calculated for each dimensions of financial Inclusion. When there is more than one indicator in a dimension an Indicator Index has to be calculated combining all the indicators. In this study, Credit Penetration dimension alone has single indicator while Bank Branch Penetration

Dimension and Deposit Penetration have more than one indicator. The indicator index for the i^{th} indicator d_i is computed by the following formula,

$$D_i = W_i (Actual_i - Minimum_i) / (Maximum_i - Minimum_i) \quad (\text{Form 1})$$

Where, W_i = weightage attached to dimension i ($0 < w_i < 1$)

$Actual_i$ = actual value of dimension i

$Minimum_i$ = minimum value of dimension i

$Maximum_i$ = maximum value of dimension i

Formula (1) Ensures that $0 \leq d_i \leq w_i$, higher the value of d_i higher is the achievement by a fisheries village in financial inclusion dimension i . If 'n' dimensions of financial inclusion are considered, a fisheries village will be represented by a point $D_i = (d_1, d_2, d_3, \dots, d_n)$ on the n-dimensional Cartesian space. In the n-dimensional space, the point $O = (0, 0, 0, \dots, 0)$ represents the point indicating the complete financial exclusion. And Point $I = (1, 1, 1, \dots, 1)$ represents the highest achievement in each dimensions, i.e., complete financial inclusion. The financial inclusion index for the fisheries village is measured by the normalised inverse Euclidean distance of the point D_i from the point I . Statistically it can be expressed as,

$$FII = 1 - \sqrt{(1-d_1)^2 + (1-d_2)^2 + (1-d_3)^2 + \dots + (1-d_n)^2} / \sqrt{n} \quad (\text{Form 2})$$

In formula (2) the numerator of the second component, i.e., Euclidean distance of the point D_i from the ideal point I , is normalised by square root of n and subtracted from '1' to give the inverse normalise distance. The normalisation is done in order to make the value lie between 0 and 1 and the higher value of the FII corresponds to higher financial inclusion.

Accordingly, the three dimensions of the present study- Bank Branch Penetration (BP), Credit Penetration (CP) and Deposit Penetration (DP) represent the Fisheries village i by a point $(BP_i, CP_i \text{ and } DP_i)$ in the three dimensional Cartesian space that is $0 \leq BP_i, CP_i \text{ and } DP_i \leq 1$ where BP_i, CP_i and DP_i stand for the various dimensions of financial inclusion of the district

i. In the three dimensional Cartesian space, the point (0,0,0) refer to worst status of financial inclusion and the point(1,1,1)indicate ideal status of financial inclusion. As a final step Financial Inclusion of the district is measured by the normalised inverse Euclidean distance of the (BP_i, CP_i and DP_i) from the ideal point (1,1,1).Formally, it can be expressed as;

$$FII= 1 - \sqrt{(1 - BP_i)^2 + (1 - CP_i)^2 + (1 - DP_i)^2 + \dots + (1 - d_n)^2} / \sqrt{n} \quad (\text{Form 3})$$

7.5.3 Database for the Calculation of Financial Inclusion Index

The present study consists of three fisheries villages in the District of Alappuzha namely, Arattuppuzha, Ambalappuzha and Arthunkal. The data required for ascertaining various dimensions of financial inclusion index has been collected from the primary data. The various dimension indicators of financial inclusion are cited below in the table.7.33

Table 7.33

Database of Financial Inclusion through Scheduled Commercial Banks

Fisheries Villages	Population of the Sample Households	No. of Bank Branches	No. of ATMS	No. of BSBD A/C	No. of SB A/C	No. of FD A/C	No. of Loans A/C
Arattuppuzha	190	2	1	44	17	1	12
Ambalappuzha	340	8	3	78	8	10	18
Arthunkal	327	2	1	78	12	2	12

Source: Field Survey

7.5.4 Bank Branch Penetration Index (BPI)

Access to the source of formal financial services is a pre requisite for ensuring the financial inclusion. Bank Branch penetration or the ease of access to commercial bank branches has been measured by using the indicators like Number of Bank branches per one hundred population and Number of ATMS per one hundred population. The calculation of Bank Branch Index as the first financial inclusion indicator index is presented in the table. 7.34.

Table 7.34
D1. Bank Branch Penetration Index (BPI)

Fisheries Villages	Actual Population from the primary data	Number of Banks	No. of Branches per 100 population	Bank Branch Index D1.1	Number of ATMs	Number of ATMs per 100 population	ATM Index D1.2	Bank Branch Penetration Index D1
Arattuppuzha	190	2	3.8	0.00	1	1.9	0.00	0.00
Ambalappuzha	340	8	27.2	1.00	3	10.2	1.00	1.00
Arthunkal	327	2	6.54	0.12	1	3.27	0.17	0.14

Source: Field Survey

Table reveals that bank branch penetration index is highest in Ambalappuzha fisheries village followed by Arthunkal and Arattuppuzha fisheries villages.

7.5.5 Credit Penetration Index (CPI)

Affordable credit to the rural and weaker sections of the society has been one of the highlighted objectives of financial inclusion drive. The Credit Penetration dimension is calculated based on the total number of loan accounts per 1 hundred population. The table.7.35 depicts the Credit Penetration Index by commercial banks among the sample households.

Table 7.35
D2. Credit Penetration Index (CPI)

Fisheries Villages	Population as per sample	No. of loans Aailed	No. of loans per 100 population	Credit Indicator Index
Arattuppuzha	190	12	22.8	0.00
Ambalappuzha	340	18	61.2	1.00
Arthunkal	327	12	39.24	0.66

Source: Field Survey

Credit penetration index is highest in Ambalappuzha fisheries village. Arthunkal depicts 66 per cent of credit penetration but Arattuppuzha fisheries village shows very low credit penetration in relation to other two villages.

7.5.6 Deposit Penetration Index (DPI)

One of the signs of meaningful financial inclusion is that households show willingness to save in scheduled commercial banks. The commercial banks offer various types of deposit accounts to make savings according to the financial capability of each household. Hence, the Deposit penetration of fisher households has been assessed based on the three types of deposit accounts namely, Basic Savings Bank Deposit Account (No-frill a/c), Savings Bank Account (SB a/c) and Fixed Deposit Account (FB a/c). Table 7.36 presents the calculation of Deposit Penetration Indicator Index of sample households under study.

Table 7.36
D3. Deposit Penetration Index (DPI)

Fisheries Villages	Population	BSBD A/c	No. of BSBD A/c per 100 population	BSBD A/c indexD2.1	SB A/C Other No-frill A/C	No. of SB A/c per 100 Population	SB A/C Other No- frill A/C indexD2.2	No.FD A/c	No.FD A/c per 100 population	FD A/c IndexD2.3	Deposit Penetration IndexD.3
Arattappuzha	190	44	83.6	0.00	17	32.3	0.42	1	1.90	0.00	0.12
Ambalappuzha	340	78	265.2	1.00	8	27.2	0.00	10	34.00	1.00	0.42
Arthunkal	327	78	255.1	0.94	12	39.2	1.00	2	6.54	0.14	0.51

Source: Field Survey

Deposit penetration index is highest in Arthunkal fisheries village. Ambalappuzha become second among the three fisheries villages. Arattuppuzha fisheries village is least even in deposit penetration index. Financial Inclusion Index is the Composite index of Bank Branch Penetration, Credit Penetration and Deposit Penetration of the fisher households.

Table 7.37
Financial Inclusion Index (FII)

Fisheries Villages	Bank Penetration index	Deposit Penetration Index	Credit Penetration Index	Financial Inclusion Index	Rank
Arattuppuzha	0.00	0.12	0.00	0.04	III
Ambalappuzha	1.00	0.42	.99	0.67	I
Arthunakal	0.16	0.51	0.42	0.34	II

Source: Field Survey

Financial Inclusion Index values are computed for the marine fisher households in three fisheries villages in Alappuzha based on the three dimensions. The financial inclusiveness level of fisher households in three fisheries villages has been ranked on a five-point scale adopted as in the case of CRISIL-Inclusix.

- 1). $0.8 < \text{FII} \leq 1$ -Very High Financial Inclusion
- 2). $0.6 < \text{FII} \leq .8$ -High Financial Inclusion
- 3). $0.4 < \text{FII} \leq .6$ -Medium Financial Inclusion
- 4). $0.2 < \text{FII} \leq .4$ -Low Financial Inclusion
- 5). $0 < \text{FII} \leq .2$ -Very Low Financial Inclusion

Among the three fisheries villages, fisher households from Ambalappuzha has achieved 'High level of financial inclusion' with financial Inclusion Index score .67 and Arthunkal is included in the 'Low Financial Inclusion' category with the Financial Inclusion Index score of 0.34. Fisher households in Arattuppuzha fisheries village is grouped into 'Very Low Financial Inclusion' category with Financial Inclusion Index score of 0.04. The

Financial Inclusion Index of fisher households in Arattuppuzha, Ambalappuzha and Arthunkal is depicted graphically in Figure.7.3

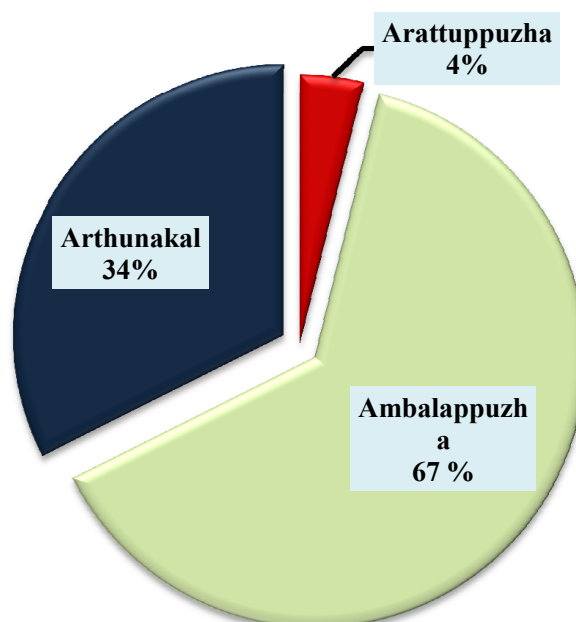


Figure 7.3

Financial Inclusion among Fisher Households in Alappuzha

The results depict the financial inclusion index of marine fisher households in three fisheries villages in Alappuzha. The result revealed that fisher households in Ambalappuzha, residing closer to National highway alone has financial inclusion index above the National average of 50.1 per cent. Bank branch penetration, deposit penetration and credit penetration are very high in this region, therefore highest financial inclusion has been observed in this fisher village. Marine fisher households in Arthunkal depicted a financial inclusion index which existed in India in 2009. Arattuppuzha, fisheries village located far away from the National highway, seems to be deserted by commercial banks, especially by private sector banks. Financial inclusion index of Arattuppuzha seems to have the status of North-Eastern States of India.

Section-C

7.6 Constraints Faced by the Commercial Banks in Rendering Financial Services

Discussion of financial inclusion among fisher households would not be complete without paying attention to the commercial banks as the financial service providers. In this section, an attempt is made to fathom the difficulties faced by of the commercial banks in rendering financial service to the marine fisher households. The prominent factors that have been considered for analysis are given below:

- Constraints Faced by the Commercial Banks in Serving Fisher Households.
- Perception of Commercial Banks about the Financial Literacy of Marine Fisher Households.

Table 7.38

Constraints Faced by Commercial Banks in Serving the Fisher Households

Constraints Faced by Commercial Banks in Dealing with Fisher Households	Total		Public		Private		ANOVA		MANOVA	
	Mean	SD	Mean	SD	Mean	SD	F	Sig.	F	Sig.
Lack of Knowledge of the Financial Products & Services	3.83	1.04	3.67	1.13	4.18	0.75	1.88	0.18	0.72	0.71
Do not Care to Repay Loan Taken from Bank	3.66	1.00	3.58	1.02	3.82	0.98	0.41	0.53		
Lack of Confidence to Fill in the Application Forms	3.83	1.12	3.88	1.15	3.73	1.10	0.12	0.72		
Lack of Awareness of Procedure of the Transactions	3.57	1.07	3.50	1.06	3.73	1.10	0.34	0.57		
Lack of Confidence to Use ATMs	3.11	1.11	2.88	1.08	3.64	1.03	3.88	0.06		
Insistence on Interaction through Counters	3.31	1.21	3.17	1.20	3.64	1.21	1.14	0.29		
Unable to Speak for themselves, Accompanied by Someone who can Speak	3.11	1.08	3.00	1.06	3.36	1.12	0.85	0.36		
Zero Balance a/c for Withdrawing Money	4.03	0.98	4.00	1.02	4.09	0.94	0.06	0.80		
Multiple Borrowings	3.69	0.68	3.63	0.71	3.82	0.60	0.61	0.44		
Expectation of Debt waive	3.89	0.80	3.79	0.83	4.09	0.70	1.07	0.31		
Lack of Banking Habit	3.40	0.91	3.38	1.06	3.45	0.52	0.06	0.81		
Fishermen Keep Overcapitalising Fishing Units	3.14	0.97	3.13	0.99	3.18	0.98	0.03	0.88		

Source : Field Survey

Table 7.38 presents the various difficulties experienced by commercial banks in providing financial services to the fisher households. A closer look at the various constraints expressed by the commercial banks, it was found that mean score of 'Zero Balance account is used only for withdrawing money' is highest among all the constraints, followed by 'Expectation of debt waive off. The constraints in its intensity is being depicted in Figure7.4. An ANOVA test result taking constraints experienced individually by banks, showed that there is no significant variation in the constraints experienced by the public sector banks and private sector banks as the significant level is greater than 0.05. And the MANOVA test result taking the twelve constraints in aggregate revealed that there is no significant variation in the constraints experienced by public sector banks and private sector banks in serving the fisher households.

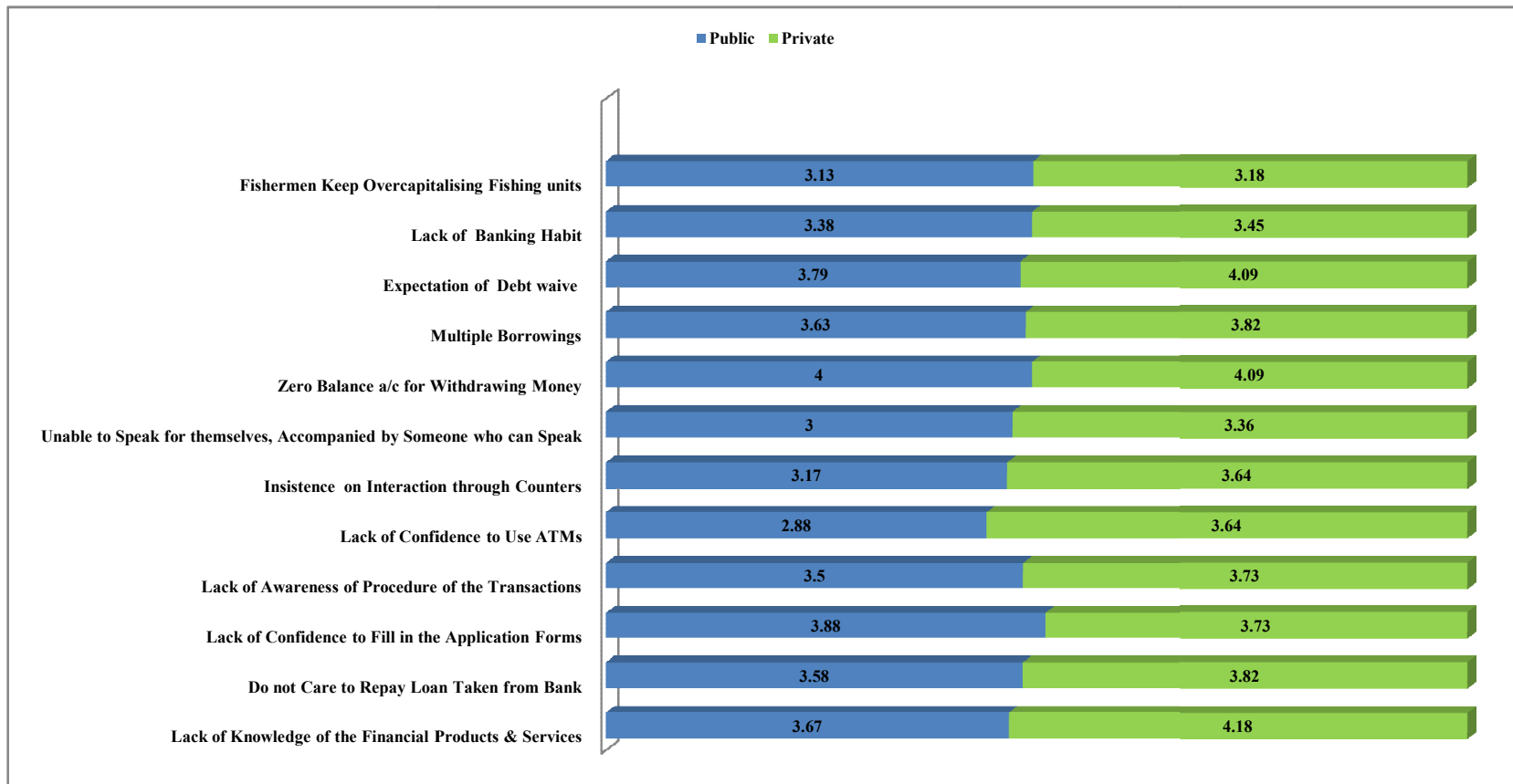


Figure 7.4
Constraints Experienced by Commercial Banks in Serving Fisher Households

7.7 Perception of Commercial Banks about Financial Literacy of Fisher Households

Perception of the commercial banks about the financial literacy of the fisher households can be identified by analysing variables relating to the financial attitude, financial behaviour, financial planning and the financial budgeting of the fisher households. Table 7.39 presents the descriptive statistics and the results of ANOVA and MANOVA of the variables related to financial literacy of the fisher households. From the table, it can be observed that all the variables under public sector banks and private sector banks have mean score above three, which indicates the agreement of the bank managers of the prevalence of various factors identified related to the financial literacy of fisher households. The analysis further reveals that ‘*incapability of generating savings in cash*’ is found out to be the prominent variable among the 13 variables related to the financial literacy, with highest mean score observed by the public sector banks as well as private sector banks.

Table 7.39
Perception of Commercial Banks on the Financial Literacy of Fisher
Households

Financial Literacy Related Factors	Total		Public Sector Banks		Private Sector Banks		ANOVA		MANOVA	
	Mean	SD	Mean	SD	Mean	SD	F	Sig.	F	Sig.
Incapable of Generating Savings	4.17	1.04	4.21	1.14	4.09	0.83	0.093	0.762	1.629	0.155
Spent on Liquor & other Entertainments	4.00	0.77	3.96	0.69	4.09	0.94	0.220	0.642		
Spent the Earnings & Borrow for the Future	3.91	0.82	3.83	0.92	4.09	0.54	0.742	0.395		
Incapable of Calculating Risk	3.63	0.81	3.54	0.88	3.82	0.60	0.881	0.355		
Borrow from Multiple Sources	3.71	1.02	3.71	1.00	3.73	1.10	0.003	0.960		
Do not Compare Cost & Benefits of Various Sources	3.71	0.93	3.67	0.87	3.82	1.08	0.197	0.660		
Lack of Motivation To Prosper Financially	3.60	1.14	3.58	1.10	3.64	1.29	0.016	0.901		
Money is there to Spend	3.74	0.98	3.71	1.08	3.82	0.75	0.092	0.763		
Tend to Live for Today Let Tomorrow Take Care of Itself	3.69	0.87	3.71	0.86	3.64	0.92	0.051	0.823		
Tend to Save in Informal Sources	3.40	0.95	3.38	1.06	3.45	0.69	0.052	0.821		
Loans From Banks are Not to Be Repaid	3.71	1.07	3.54	1.10	4.09	0.94	2.037	0.163		
Easily Approach Informal Sources	3.31	0.80	3.08	0.83	3.82	0.40	7.694	0.009		
Financial Decisions Taken without Much Consultation	3.51	0.95	3.50	0.93	3.55	1.04	0.017	0.898		

Source: Field Survey

Table 7.39 presents the extent of variation in each variables related to financial literacy assessed by conducting ANOVA. The test result of ANOVA model shows that all variables except in ‘Easily approach informal sources’ has significance value of *F-statistics* above the significant level of 0.05, indicating insignificant variance in the perception of public and private sector banks about

the financial literacy of fisher households. Again, MANOVA is conducted to identify the variance in the perception of the bank managers of public sector banks and private sector banks regarding the financial literacy of fisher households. The test result showed that there is no significant variance in the perception of bank managers by sectors about the financial literacy level of fisher households as the p -value associated with the F -statistics falls beyond the significant level of 0.05, therefore the hypothesis that there is no significant difference in the perception of the public sector banks and private sector banks regarding the financial literacy of the marine fisher households stands accepted.

Further, an analysis was undertaken to determine factors that have major influence on the financial literacy of fisher households as per the views of public and private sector bank managers. It is carried out using the data reduction technique of factor analysis.

Bartlett's Test of sphericity

Approximate Chi-Square = 211.750; df = 91; Significance = 0.000

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .537

Table 7.40
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.570
Bartlett's Test of Sphericity	Approx. Chi-Square	185.26
	df	78
	Sig.	.000

Bartlett's test of sphericity and Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) were used to assess the appropriateness of factor analysis. The approximate Chi-Square statistics is 185.26 with 78 degree of freedom which is significant at 0.05 level. The KMO statistics is (0.570) and it is greater than (0.5). So, factor analysis is selected as an appropriate technique for detailed analysis of the data.

Table 7.41
Reliability Statistics

Cronbach's Alpha	N of Items
.747	13

Alpha value ranges between 0 to 1, generally accepted Alpha value is (>.6).

Table 7.42
Total Variance Explained on the Financial Literacy Factors

Components	Total Variance Explained								
	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.691	28.393	28.393	3.691	28.393	28.393	2.921	22.468	22.468
2	2.594	19.956	48.349	2.594	19.956	48.349	2.645	20.345	42.813
3	1.578	12.135	60.484	1.578	12.135	60.484	1.799	13.835	56.649
4	1.208	9.296	69.780	1.208	9.296	69.780	1.707	13.131	69.780
5	.770	5.926	75.706						
6	.713	5.485	81.191						
7	.648	4.985	86.176						
8	.568	4.371	90.547						
9	.454	3.490	94.037						
10	.281	2.159	96.196						
11	.241	1.850	98.046						
12	.169	1.303	99.350						
13	.085	.650	100.000						
<i>Extraction Method: Principal Component Analysis.</i>									

Source: Field Survey

From the above table, it is clear that four factors are extracted with eigen values greater than 1. Retaining only variables with Eigen Value greater than 1 (Kaiser's criterion), it can be inferred that 22.468 per cent of variance is explained by Factor 1; 20.345 of variance is explained by Factor 2; 13.835 per cent of variance is explained by Factor 3 and 13.131 per cent of variance is explained by Factor 4; all four factors together explains the 69.78 per cent of variance. The associated rotated components matrix is given below;

Table 7.43
Rotated Component Matrix of Financial Literacy Factors

Sl. No	Financial Literacy Related Factors	Components			
		1	2	3	4
1	Incapable of Generating Savings in Cash			.744	
2	Spent on Liquor & other Entertainment				.896
3	Spent the Current Earning & Borrow for the Future	.648			
4	Readiness to Assume High Risk	.641			
5	Borrow from Multiple Sources				.589
6	Do not Compare Various Financial Choices			.833	
7	Lack of Motivation/Financial Goals	.719			
8	Money is there to Spend	.786			
9	Tend Live for Today Let Tomorrow Take Care of Itself	.793			
10	Tend to Save in Informal Sources		.782		
11	Reluctance to Repay the Loans Taken From Banks		.838		
12	Easily Approaches Informal Sources		.778		
13	Financial Decisions are Taken Without Adequate/ Proper Consultations		.627		
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 6 iterations.					

Source: Field Survey

Varimax Rotation was undertaken to obtain the factors that can be grouped and analysed. Result of the Varimax Rotation with Kaiser Normalization reveals that there are four prominent factors emerging as the influential factors of financial literacy of fisher households and the factor loadings of these four factors are very high. In case of Factor 1, three out of five variables have factor loadings greater than 0.7 and two variables have scored above six. Hence, it reveals that more than 38.46 per cent of the variables are clubbed into one factor. There are also 30.77 per cent of the variables are clubbed to form Factor 2. Factor 3 consists of three variables with factor loadings greater than eight (0.833) and the Factor 4 is the combination of

two factors, of which one variable has the factor loading of 0.896. As a next step these factors have been appropriately named as the factors of financial literacy.

Table 7.44
Factors Affecting Financial Literacy of Fisher Households

Factors	Variables (V) Nos.	Financial Literacy Related Variables	Factor loading
1. Financial Attitude	9	Tend to Live For Today, Let Tomorrow Take Care of Itself	.793
	8	Money is There to Spend	.786
	7	Lack of Motivation/ Financial Goals	.719
	3	Spent the Current Earning & Borrow For the Future	.648
	4	Readiness to Assume High Risk	.641
2. Financial Behaviour	11	Reluctance to Repay the Loans Taken from Banks	.838
	10	Tend to Save in Informal Sources	.782
	12	Easily Approach Informal Sources	.778
	13	Financial Decisions are Taken Without Adequate Consultations	.627
3. Financial Planning	6	Do Not Compare Various Financial Choices	.833
	1	Incapable of Generating Savings in Cash	.744
	3	Spent the Current Earning & Borrow for the Future	.567
4. Financial Budgeting	2	Spent on Liquor & other Entertainment	.896
	5	Borrow from Multiple Sources	.589

Source: Field Survey

Each factor of financial literacy has been clubbed together with those variables which have factor loading greater than 0.5 and are depicted in the table 7.44. Thus V9, V8, V7, V3 and V4 constitute the first factor. In this study, this factor is conceptualised as '*Financial Attitude*', V11, V10, V12 and V13 constitute the second factor and this factor was titled as '*Financial Behaviour*', V6, V1 and V3 constitute the third factor, which is named as '*Lack of Financial Planning*', and V5 and V2 constitute the fourth factor conceptualised as '*Financial Budgeting*'.

Subsequently, the result was tested using Independent t-test to identify the variance in the financial literacy factors perceived by public sector banks and private sector banks as given below:

Table 7.45
Independent t-test on the Perception of Bankers on Financial Literacy

Factors	Types of Banks	Mean	SD	<i>t</i>	df	Sig.
Financial Attitude	Public sector	0.22	1.07	1.599	33	0.119
	Private sector	0.32	0.81			
Financial Behaviour	Public sector	0.26	0.99	1.973	33	0.057
	Private sector	0.39	0.91			
Financial Planning	Public sector	0.06	1.09	0.461	33	0.648
	Private sector	0.10	0.87			
Financial Budgeting	Public sector	0.00	1.06	0.015	33	0.988
	Private sector	0.00	0.94			

Source: Field survey

Table 7.45 presents the *t*-statics of the perception of the bank managers of public and private sector banks on the financial literacy of fisher households. The result revealed that *p*-values of *t*-statistic calculated for four factors are not significant at the 0.05 level, indicating insignificant variation in the perception of public sector bank managers and private sector bank managers regarding the financial literacy of fisher households under study.

7.7.1 Financial Inclusion among Marine Fisher Households: Perception of Commercial Banks

It was significant to grasp the mind of the financial service providers regarding the possibility of including fisher households under the fold of commercial banks and provide products and services more suitable to their need. Analysis on the perception of public sector banks and private sector banks are depicted in Table 7.46.

Table 7.46
Perception of Commercial Banks Regarding Financial Inclusion of
Marine Fisher Households

Opinion of Bankers Regarding the Financial Inclusiveness of Fisher Households		Public Sector Banks (N=21)		Private Sector Banks (N=14)		χ^2	Sig.
		n	%	n	%		
Fishermen are Underserved	Yes	6	28.57	8.00	57.14	.583	.445 ^a
	No	15	71.43	6.00	42.86		
Possibility to Offer Tailored Products	yes	6	28.57	3	21.43	2.857	.091
	No	15	71.43	11	78.57		

Source: Field Survey

The first part of the Table 7.46 reveals that majority of the commercial bank managers of both public and private sector banks are of the opinion that fisher households are not underserved and the Independent t-test result also validate their opinion as the significant value of the t-statistic is .445, which is not significant at 0.05 level. And the response of the bankers, public as well as private about the possibility of offering tailored products and services to the fisher households revealed the inability to diverge from the trodden path of financial services followed by the commercial banks to reach out to the weaker sections of the society as the *p*-value associated with *t*-statistic is found to be .091, which is not significant at 0.05 level.

7.7.2 Initiatives of Commercial Banks for the Financial Inclusion among Fisher Households

As the study revealed the low financial literacy of the fisher households, it was essential to see the specific initiatives taken to include the fisher households by creating awareness of the financial services and products offered by the commercial banks and the benefits of being included under the formal banking institutions. The bank managers asked about the initiative taken to understand the business dynamics of fishing sector and their confidence to

include the fisher households meaningfully under the domain of commercial banks.

Table 7.47

Bankers' Initiatives for the Financial Inclusion of Fisher Households

Bankers' Attitude and Initiatives on financial Inclusion		Public Sector Banks (N=21)		Private Sector Banks (N=14)	
		n	%	n	%
Fishermen are Fully Bankable	Yes	21	100.00	14	100.00
	No	0	0.00	0	0.00
Have you Undertaken any Studies about Fisher Community	Yes	0	0.00	0	0.00
	No	21	100.00	14	100.00

Source: Field Survey

As the table 7.47 reveals that all the bank managers of public as well as private sector banks are confident in providing formal financial services to the fisher households and they believe that they can be bankable. But the table further reveals that none of the banks have undertaken any study to fathom the business dynamics of fishing activities in order to provide customer centric products especially credit products to the fisher households.

7.7.3 Bankers' Level of Satisfaction in Financial Inclusion Initiatives

Commercial bank branches which are catering the fisher households have succeeded in bringing the fisher households under the spear of commercial banks by opening No-frill account/BSBD account/ Jan Dhan account. The scheduled commercial bank branches serving the fisher households were asked to express the level of satisfaction in financial inclusion initiatives taken so far among the fisher households and the responses are appended in the table given below;

Table 7.48
Level of satisfaction of Commercial banks in Financial Inclusion
Initiatives

Types of Banks	Levels of Satisfaction	N	%	Mean	S.D	<i>t</i>	df	Sig. (2-tailed)
Public Sector Banks	Highly Satisfied	7	37.50	1.619	0.498	2.125	33	0.04*
	Satisfied	14	62.50					
	Poorly Satisfied	0	0.00					
Private Sector Banks	Highly Satisfied	2	14.00	1.928	0.267			
	Satisfied	12	86.00					
	Poorly Satisfied	0	0.00					

Source: Field Survey

*Significant at 0.05 level

The table 7.48 reveals the satisfaction levels of public sector banks and private sector banks in their effort to include the fisher households under the formal financial institutions. Satisfaction level of commercial banks in taking financial inclusion initiatives differ significantly by Types of bank, as the significance value of t-statistic is observed to be 0.041, which is less than the significant level of 0.05. Public sector banks are found to be more satisfied with the financial inclusion initiatives rolled out so far compared to the private sector banks.

7.8 Hypotheses Tested

Objective No.5: To determine the constraints faced by the scheduled commercial banks in rendering the financial services to the fisher households.

H0: *There is no significant difference in the constraints faced by the public sector banks and private sector banks in serving the fisher households.*

MANOVA test was conducted to assess the variation in the constraints faced by commercial banks both public and private. The result presented in the Table 7.38 showed that there is no significant difference in the constraints faced by public sector banks and private sector banks in rendering financial service to the marine fisher households stands accepted as the significance

value of F-statistic of MANOVA is found to be 0.714, which is not significant at the 0.05 level. Hence, *the hypothesis stands accepted*.

Objective No.6: To assess the extent of financial literacy of fisher households from the view point of Commercial banks.

H0: *There is no significant difference in the perception of the Public sector banks and Private sector banks on the financial literacy of fisher households.*

The result presented in the *Table 7.39*, reveals that the perception of public sector banks and private sector banks on the financial literacy of fisher households is similar. The *hypothesis stands accepted* as the significant value of the F-statistics of MANOVA test is found to be 0.155, which is not significant at the 0.05 level.

Conclusion

Financial Inclusion process has two dimensions such as ‘Access’ and ‘Usage’. In other words, it can be termed as supply side and demand side of financial inclusion. Financial inclusion among marine households has been studied under two dimension, taking marine fisher households and the bankers for the analysis. The analysis throw light to the fact that even after a decade of financial inclusion initiatives, fisher households have not been included sufficiently to the commercial banks except that they hold a bank account for the purpose of receiving DBT scheme and wages of MGNREG scheme. The banking outlet density is much low in the coastal areas and the availability of institutional credit is pathetically low among the marine fisher households. More than 58.00 per cent of fisher households have not even requested for a loan products due to the unsuitability of the credit product offered by the commercial banks and the weak financial status. On the other hand, commercial banks have expressed their satisfaction in the financial inclusion initiatives taken since 2005. According to the financial service providers, the reason for the low level of financial inclusion among marine fisher households is the lack of financial literacy of the fisher households. The present system of commercial banks and the financial status of marine fisher households do not allow to attain the goal of financial inclusion.